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## EDITED BY

Lisa Bowers,  
University of Arkansas, United States

## REVIEWED BY

Glenda Hux,  
University of Arkansas, United States  
Heather Young,  
University of Arkansas, United States

## \*CORRESPONDENCE

Helene Hallaråker  
✉ [helene.hallaraker@uib.no](mailto:helene.hallaraker@uib.no)

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# The impact of interprofessional collaboration on EPS counselors' job satisfaction

Helene Hallaråker<sup>1\*</sup>, Elisabeth Hesjedal<sup>1</sup>, Kathrin Olsen<sup>2</sup>,  
Marianne S. Tveitnes<sup>3</sup>, Camilla Herlofsen<sup>4</sup>, David L. Cameron<sup>4</sup>  
and Christian Brandmo<sup>5</sup>

<sup>1</sup>University of Bergen, Bergen, Norway, <sup>2</sup>Nord University, Bodø, Norway, <sup>3</sup>University of Stavanger, Stavanger, Norway, <sup>4</sup>University of Agder, Kristiansand, Norway, <sup>5</sup>University of Oslo, Oslo, Norway

Educational Psychological Services (EPS) counselors play an essential role in supporting students with special educational needs through assessments, interventions, and collaboration with key stakeholders. This study examines the relationship between interprofessional collaboration, job satisfaction, and intention to leave among EPS counselors, including the variables knowledge about collaboration, trust, affective commitment, and time pressure. Based on a cross-sectional design with structural equation modeling, the study analyzes data from 637 EPS counselors concerning their interprofessional collaborative practices with kindergartens, schools, child welfare services, and health services. The findings highlight that knowledge about collaboration, trust, and sufficient time are essential for effective interprofessional collaboration with kindergartens and schools. Affective commitment was strongly associated with job satisfaction, while time pressure was closely linked to EPS counselors' intention to leave. Although interprofessional collaboration was not strongly related to job satisfaction or intention to leave, negative collaboration experiences with kindergartens and schools were positively related to EPS counselors' intentions to leave. These findings underscore the importance of ensuring that EPS counselors have the necessary knowledge, trust, and time for effective interprofessional collaboration.

## KEYWORDS

educational psychological services, educational psychological counselors, interprofessional collaboration, job satisfaction, intention to leave, structural equation modeling

## 1 Introduction and purposes

Worldwide, Educational Psychological Services counselors (EPS counselors) provide various services to support students through their education. The work of EPS counselors consists of individual assessments of students, developing and implementing intervention programs, consulting with teachers, parents, and other professionals, engaging in program development and evaluation, and supervising others (Hatzychristou and Jimerson, 2024). While the titles used to describe these professionals vary globally (e.g., counselors, school psychologists), EPS counselors are closely aligned with the term used in Norway, which is the context of the current study. One of the primary tasks for EPS counselors is to collaborate with parents, teachers, and other professionals to support students with special educational needs (SEN students) in their learning process and ensure they complete their education. Given the complexity of educational challenges, interprofessional collaboration of this nature is essential for addressing students' diverse needs and reducing the risks of social exclusion and school dropout (e.g., Hatzychristou and Jimerson, 2024; Hesjedal et al., 2015b; Hynnek et al., 2020;

Ministry of Education and Research, 2019-2020; The Education Act [Opplæringslova], 2023; UNESCO, 1994; World Health Organization, 2010).

Interprofessional collaboration has been integral to special education since the emergence of the field (Friend et al., 2010; Friend and Barron, 2024). Interprofessional collaboration can be described as an approach where individuals with different professional backgrounds work together to solve a joint task (Castro-Kemp and Samuels, 2022; Johnson, 2016; Reeves et al., 2011), and this approach has been showing to benefit school-aged children with diverse needs (Chenneville et al., 2023; Cooper et al., 2016). Research on interprofessional collaboration involving EPS counselors is diverse but limited. Studies have examined their collaboration with school personnel (Kolnes and Midthassel, 2022), their role in supporting children in the welfare system (Hesjedal et al., 2015a), and their partnerships with health service professionals such as primary care physicians, pediatricians, child and adolescent psychiatrists, and professionals working in child health clinics (Arora et al., 2019; Ritzema et al., 2014). Additionally, research has explored interprofessional collaboration between general and special education teachers (Pellegrino et al., 2015).

Interprofessional collaboration has been identified as a key component of EPS counselors' work (Hatzichristou and Jimerson, 2024; Kolnes and Midthassel, 2022; Moen et al., 2018; Segal et al., 2017). Research highlights that EPS counselors are well-positioned to facilitate and take a leading role in interprofessional collaboration due to their knowledge and expertise (Friend and Barron, 2024; Griffiths et al., 2021). However, studies indicate that interprofessional collaboration is a complex and challenging process (Moen et al., 2018), and several barriers to effective interprofessional collaboration have been identified in the literature. For instance, a lack of coordination between EPS counselors, students, school staff, and parents in assessing students' needs has been reported as a significant challenge (Kolnes et al., 2021). Additionally, EPS counselors often face difficulties in engaging school principals, gaining legitimacy among teachers, and ensuring that students' voices are adequately represented in the collaborative process (Hesjedal, 2021; Kolnes and Midthassel, 2022).

The need for collaboration in special education will likely continue to grow as supporting students with SEN in general education settings becomes a fundamental expectation worldwide. Students with SEN sometimes require support from professionals outside the school setting to complete their education and training successfully. These professionals may include individuals from child welfare services or health services, such as primary care physicians or child and adolescent psychiatrists. The different professionals may offer support and expertise that contribute to supporting students with SEN. Despite this, there remains a significant gap in understanding interprofessional collaboration within the educational context, particularly regarding how it relates to EPS counselors' working conditions. Friend and Barron (2024) note that while collaboration is widely recognized as essential, there is limited focus on the specific knowledge and skills required to collaborate effectively on providing special education services. Research indicates that EPS counselors often report insufficient training and preparedness for interprofessional collaboration (Chenneville et al., 2023; Gardner et al., 2022). Despite the best intentions of the professionals involved, a lack of collaboration skills may hinder their ability to provide optimal support to students (Friend and Barron, 2024). As Friend and

Barron (2024) highlight, collaboration is frequently assumed to be an inherent skill, yet many educators may not fully grasp the complexities of effective collaborative practices. They observe that educators often respond to discussions of collaboration with a degree of dismissiveness, as though it is self-explanatory: "When the word collaboration is mentioned, the educators' responses are often dismissive as though it is something that all educators understand and practice (yeah, we know, it is working together)" (Friend and Barron, 2024, p. 6).

For EPS counselors to succeed in their jobs, their work demands must be manageable. However, research has identified several challenges within the EPS, including high referral rates, excessive workloads, lengthy case-processing times, and understaffing (Jimerson et al., 2008; Moen et al., 2018; Young et al., 2021). Despite these challenges, Young et al. (2021) found that most EPS counselors reported being satisfied with their work and highlighted that effective collaboration was a key factor contributing to their job satisfaction. Paradoxically, 47% of EPS counselors considered leaving the profession despite their overall job satisfaction, and 90% agreed or strongly agreed that their work is stressful (Young et al., 2021). This contradiction underscores the complexity of job satisfaction, working conditions, and interprofessional collaboration in this profession, thus highlighting the need for further research into the factors that influence well-being among EPS counselors.

Against this background, there is a need to increase the research related to EPS counselors and interprofessional collaboration within the special education setting. This study examines the relationship between interprofessional collaboration, job satisfaction, and intention to leave among EPS counselors. The study incorporates factors essential for fostering effective interprofessional collaboration and job satisfaction to provide a comprehensive understanding. Specifically, we explore how knowledge about collaboration, trust, affective commitment, and time pressure influence job satisfaction and EPS counselors' collaborative practices with key stakeholders, including kindergartens, schools, child welfare services, and health services.

## 1.1 The PINCOM model as a lens for interprofessional collaboration

Few theoretical frameworks specifically address interprofessional collaboration within an educational context (Glavin and Erdal, 2018). One model that does account for this context is the Perceptions of Interprofessional Collaboration Model (PINCOM) (Ødegård, 2006). The PINCOM model systematically organizes key aspects that characterize perceptions of interprofessional collaboration. Rather than serving as a complementary model, PINCOM provides a foundation for a holistic understanding of interprofessional collaboration within educational settings. The development of this model has been instrumental in shaping the examination of interprofessional collaboration in the EPS setting. According to the PINCOM model, interprofessional collaboration can be reflected in three levels: individual, group, and organizational. Each level comprises specific factors influencing collaborative processes (Ødegård, 2006). These factors were selected based on a review of their theoretical and empirical significance within the interprofessional collaboration literature, as well as findings from a pilot study (Ødegård, 2016).

At the individual level, PINCOM highlights personal attributes and professional competencies that impact collaboration. This includes professionals' role perceptions, professional power, personality traits, and motivation, all of which shape their engagement in interprofessional collaboration. At this level, trust and professional identity are critical in determining how individuals interact within collaborative frameworks. At the group level, the model emphasizes the dynamics of interprofessional collaboration, including the quality of relationships, group leadership, social support, and communication among professionals. At this level, the significance of shared goals, mutual respect, and clearly defined roles in fostering effective collaboration are emphasized. At the organizational level, the model addresses structural and systemic factors that either facilitate or hinder interprofessional collaboration. Elements such as organizational culture, institutional goals, professional domains, and environmental conditions are predicted to significantly influence collaborative practices. Additionally, policies, leadership support, resource allocation, and formalized collaborative structures play an essential role in shaping the effectiveness of interprofessional collaboration across professional domains.

By integrating these three levels, the PINCOM model provides a framework for understanding the complexities of interprofessional collaboration in educational settings. However, as the model is not exhaustive, further exploration of additional factors influencing interprofessional collaboration is necessary. Ødegård (2006) model offers insight into the perceived complexity of interprofessional collaboration. Still, the aspects involved in interprofessional collaboration processes are extensive, and the PINCOM model only highlights some of them (Ødegård, 2006). Therefore, it is of interest to explore how other relevant factors, such as knowledge about collaboration and affective commitment, are related to EPS counselors' evaluations of interprofessional collaboration. This study contributes to the field by incorporating the perspectives of EPS counselors and examining factors such as knowledge about collaboration, perceived trust, affective commitment, time pressure, positive and negative interprofessional collaboration, job satisfaction, and intention to leave.

## 1.2 Examining the predictors, mediators, and outcome variables

In this study, we operate with three sets of variables (predictors, mediators, and outcomes) and eight latent variables that are defined within them. The EPS counselor's *knowledge about collaboration*, *perceived trust*, *affective commitment*, and *time pressure* are predictors. *Positive and negative interprofessional collaboration* are mediators, while *job satisfaction* and *intention to leave* are outcome variables. In the following, we will review previous research on the associations between these factors. To our knowledge, there is limited research on EPS counselors specifically focusing on the associations between these factors. Therefore, we have drawn on studies from other professions, such as teachers and nurses.

### 1.2.1 The predictors

#### 1.2.1.1 Knowledge about collaboration

Knowledge about collaboration can be defined as one's self-assessed perceived knowledge about different aspects of

interprofessional collaborative practices. Friend and Barron (2024) state that scant attention is paid to the specific knowledge and skills required for collaboration. Research has demonstrated that knowledge about collaboration and previous training in interprofessional collaboration influence the quality of interprofessional collaboration. Roberts (2003) found that previous training in collaborative practices significantly predicted the extent of professionals' engagement in collaboration. Similarly, Nooteboom et al. (2021), in their systematic review of facilitators and barriers to integrated care, identified knowledge and training in interprofessional collaboration as key facilitators, whereas a lack of knowledge was a commonly reported barrier. Despite these findings, the specific skills that comprise knowledge about collaboration and the skills needed to collaborate in the special education setting are poorly understood. Consequently, professionals may lack the necessary skills to collaborate effectively and support students as intended (Friend and Barron, 2024).

#### 1.2.1.2 Perceived trust

Trust refers to the firm belief in another person or group's integrity, truthfulness, or reliability. In the workplace, trust encompasses respect, competence, integrity, and personal regard for others (Kramer, 1999; Elstad et al., 2016). Trust is considered an important factor in interprofessional collaboration (Nooteboom et al., 2021; Wei et al., 2022; Ødegård, 2006), and it is regarded as one of the key elements required for the development of collaborative practice (San Martín-Rodríguez et al., 2005). Despite its importance, establishing trust has been reported as a significant challenge in interprofessional collaboration between schools and the EPS (Kolnes and Midthassel, 2022). Research by Elstad et al. (2016) on teacher collaboration found that trust between teachers and school principals indirectly influenced collaboration through affective commitment to the school organization. However, they emphasize further research to understand the relationship between trust and collaborative practices. In addition to its role in collaboration, trust in collaborative partners also appears to affect job satisfaction, with lower levels of trust being associated with decreased job satisfaction (Roberts and David, 2020).

#### 1.2.1.3 Affective commitment

Affective commitment refers to an employee's emotional attachment to, identification with, and involvement in their organization (Allen and Meyer, 1990). Numerous studies have demonstrated a strong relationship between affective commitment, intention to leave, and job performance across various work populations (Gün et al., 2021). Brandmo and Tiplic (2021) investigated factors predicting teachers' perceptions of job satisfaction, stress, and intentions to leave their jobs. Their findings showed that affective commitment to the school organization was significantly associated with greater workplace satisfaction and a lower intention to leave. Affective commitment has also been associated with job satisfaction and team performance (Caricati et al., 2015; Ndibu et al., 2019), and positive associations between interprofessional collaboration and affective commitment have been demonstrated (Ndibu et al., 2019). Galletta et al. (2016) found that higher levels of job satisfaction were associated with higher levels of affective commitment to the team, with this relationship being further strengthened in environments characterized by positive collaboration. Similarly, Elstad et al. (2016) found that affective commitment had a direct positive effect on

collaboration among teachers, further emphasizing its role in fostering cooperative work environments.

#### 1.2.1.4 Time pressure

Time pressure in the workplace can be defined as the combination of a hectic workday and a heavy workload (Skaalvik and Skaalvik, 2011). Research has consistently shown that EPS counselors face significant challenges related to time pressure, including heavy workloads, lengthy case-processing times, and insufficient staffing (Moen et al., 2018). Studies on teachers have shown that time pressure has led to a significant decline in their job satisfaction, and it has been found to correlate positively with teacher burnout (Skaalvik and Skaalvik, 2011). Similarly, time pressure also affects interprofessional collaboration (e.g., Nooteboom et al., 2021). One of the key conditions for a successful collaborative practice is the availability of sufficient time to interact and spaces to facilitate meetings (San Martín-Rodríguez et al., 2005). Research on EPS counselors' collaborative practices has identified time constraints as a significant barrier, limiting their ability to engage meaningfully with colleagues and other professionals (Villarreal, 2018). Moreover, limited time has been reported as a significant obstacle to collaboration between EPS counselors, teachers, and children (Moen et al., 2018; Iversen et al., 2006), further underscoring the critical role of time availability for participation in interprofessional collaboration (Hallaråker et al., 2025).

#### 1.2.2 Interprofessional collaboration as an intermediate variable

Interprofessional collaboration is an approach in which individuals with different professional backgrounds come together to solve joint tasks (Reeves et al., 2011). As a concept, interprofessional collaboration is described and perceived differently by professionals (Ødegård, 2005; Ødegård, 2006). Depending on various factors such as communication, role clarity, and organizational support, participants who are engaged in interprofessional collaboration may perceive collaboration as positive, negative, or somewhere in between. A preliminary factor analysis suggested that interprofessional collaboration is best conceptualized as a two-factor model. One factor captures positive experiences, such as goal-directed and effective collaboration, while the other reflects negative experiences, including perceptions of collaboration as exhausting and difficult. Previous research has consistently highlighted EPS counselors' challenges in interprofessional collaboration (Kolnes et al., 2021; Kolnes and Midthassel, 2022; Moen et al., 2018). Despite these challenges, interprofessional collaboration remains a core component of EPS counselors' professional responsibilities. Given its central role, we posit that EPS counselors' evaluations of interprofessional collaboration may significantly influence their job satisfaction and intention to leave the profession.

#### 1.2.3 Outcome variables

##### 1.2.3.1 Job satisfaction and intention to leave

Job satisfaction refers to an individual's positive or negative judgments about their job. In contrast, intention to leave reflects an EPS counselor's intention to leave their current position or the profession entirely (Skaalvik and Skaalvik, 2011). It is worth noting that the motivations of EPS counselors for leaving their current

positions and their intentions to leave the profession entirely may differ. While intentions to leave a specific workplace could stem from contextual factors such as leadership or working conditions, intentions to leave the profession may be influenced by broader systemic challenges or historical experiences. Still, previous research has demonstrated a strong correlation between job satisfaction and intention to leave, with lower job satisfaction systematically linked to higher stress levels and an increased likelihood of leaving the profession (Skaalvik and Skaalvik, 2011).

Job satisfaction has also been found to be associated with an individual's bond with the organization and the strength of their affective commitment (Galletta et al., 2016). Although EPS counselors endure challenges in their work, previous research shows that most EPS counselors are satisfied with their work (Young et al., 2021). Young et al. (2021) found that EPS counselors' satisfaction with their work comes from working directly with students and believing their work has a positive impact. Additionally, effective collaboration was highlighted as a key contributor to their job satisfaction, underscoring the link between interprofessional collaboration and overall work satisfaction (Young et al., 2021). Similarly, Galletta et al. (2016) found that the relationship between job satisfaction and affective commitment at the individual level was moderated by collaboration at the group level among nurses. Despite EPS counselors' generally high levels of job satisfaction, nearly half (47%) of the surveyed EPS counselors considered leaving the profession at the time of the study (Young et al., 2021).

#### 1.3 The current study: development of the hypothesized model

Building on the reviewed literature, a hypothesized model was developed to examine the relationships between the presented variables in the context of EPS counselors. Although some of these associations are derived from studies of other professional groups (e.g., teachers and nurses), they can still provide a relevant foundation for investigating these relationships among EPS counselors, as these professions operate within a human service context and may exhibit similar patterns in job satisfaction and intentions to leave. Prior research has demonstrated that knowledge about collaboration (Nooteboom et al., 2021), perceived trust (Wei et al., 2022; Ødegård, 2006), affective commitment (Elstad et al., 2016; Ndibu et al., 2019), and time pressure (San Martín-Rodríguez et al., 2005) all influence interprofessional collaboration. Consequently, we hypothesize that these factors will shape how EPS counselors evaluate interprofessional collaboration. We hypothesize that knowledge, trust, and affective commitment will be positively associated with positive evaluations of interprofessional collaboration and negatively associated with negative evaluations of interprofessional collaboration. Conversely, we hypothesize that time pressure will be negatively associated with positive evaluations of interprofessional collaboration and positively associated with negative evaluations of interprofessional collaboration. Additionally, we expect a positive association between knowledge about collaboration, perceived trust, and affective commitment, while time pressure is expected to be negatively correlated with these predictors. Given that interprofessional collaboration is considered a core component in the work of EPS counselors (e.g., Segal et al., 2017),



we hypothesize that positive evaluations of interprofessional collaboration are positively associated with job satisfaction and negatively with intention to leave. In contrast, we expect negative evaluations of interprofessional collaboration to be negatively associated with job satisfaction and positively associated with the intention to leave. Finally, we hypothesize that job satisfaction is negatively associated with the intention to leave (Skaalvik and Skaalvik, 2011) and that there is a negative relationship between positive and negative evaluations of interprofessional collaboration, indicating that positive collaboration experiences reduce negative evaluations and vice versa (Figure 1).

## 2 Methods

### 2.1 Research site and participants

This study was conducted in Norway, where all municipalities and county authorities are legally required to establish an Educational Psychological Service (EPS). This population-based study invited all EPS offices and employees working with children of compulsory school age or younger to participate. The organization of EPS in Norway varies, as no standardized national guidelines dictate how the service should be structured or staffed (Moen et al., 2018). Our final sample comprised 637 EPS counselors (92.9% female, 7.1% male) from 151 EPS offices. The average age of the participants was 44.6 years, and they had an average tenure of 8.5 years within the EPS.

In Norway, approximately 2,200 EPS counselors work with children of compulsory school age. Thus, this study captured responses from one-third of all EPS counselors nationwide. The study achieved broad geographic representation, with all 11 counties in

Norway included, and participation rates across counties ranging from 52 to 93%.

### 2.2 Data collection

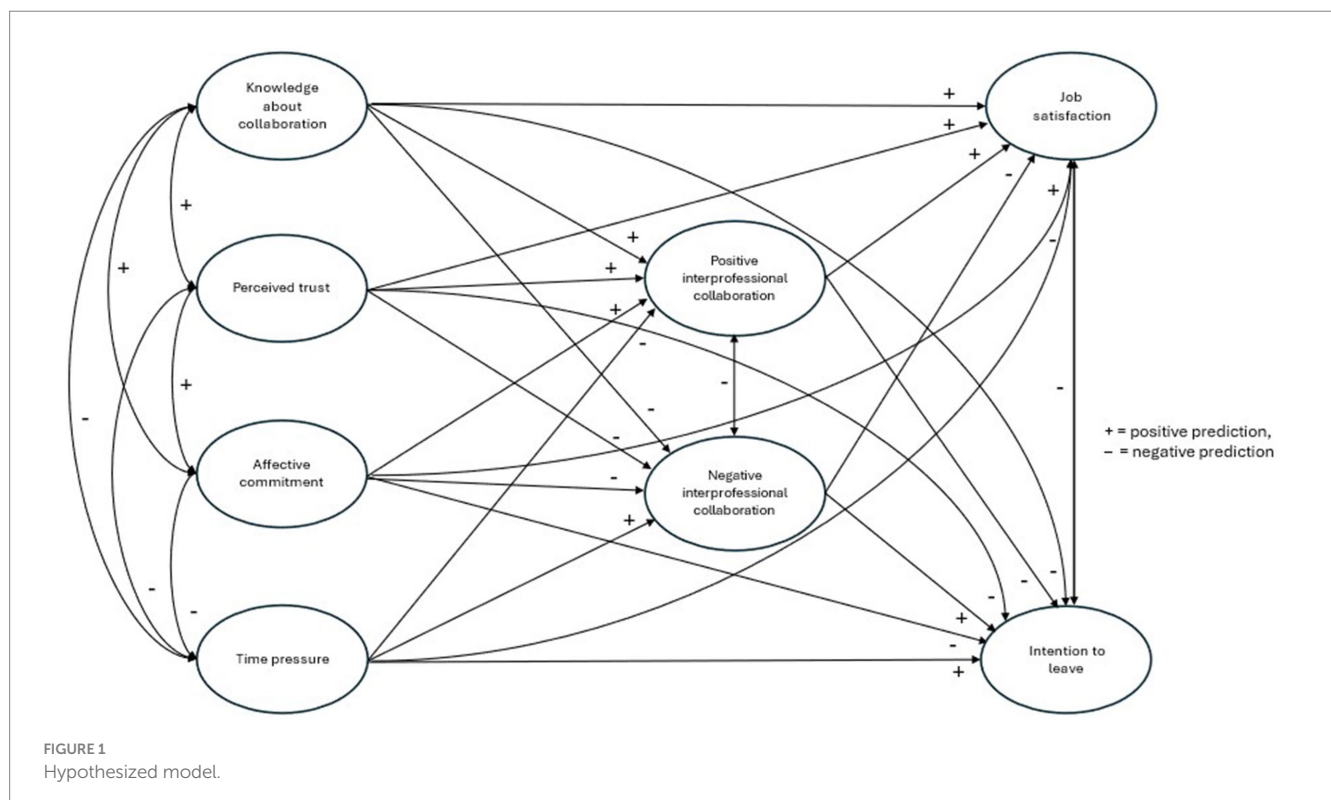
Data was collected through a digital questionnaire consisting of 223 items. The invitation to participate was initially emailed to EPS leaders, who then distributed the survey link to the EPS counselors within their offices. Three email reminders were sent to EPS leaders to maximize response rates, followed by a final round of phone calls to offices that had not yet responded. Data collection was concluded after these follow-up efforts. Participation in the study was voluntary, and the Norwegian Agency for Shared Services in Education and Research reviewed and approved all procedures related to data collection, storage, privacy, and confidentiality.

### 2.3 Measurements

The survey scales were primarily derived from previously validated scales. Some measurements were adapted to align with the EPS context, while others were newly developed for this study.

#### 2.3.1 Pilot study

A pilot study was conducted in November 2022, involving 83 EPS counselors from 10 different EPS offices. Descriptive statistics and preliminary tests of psychometric properties were performed for all concept-based measurements to assess the survey's reliability and validity. The results indicated that the measurements demonstrated acceptable psychometric properties, and no modifications were made



to the survey. [Table 1](#) provides an overview of the reliability assessments for all measurements.

### 2.3.2 Knowledge about collaboration

The knowledge about collaboration scale was designed to assess EPS counselors' self-assessed theoretical and practical knowledge about interprofessional collaboration, as well as their self-assessed collaboration skills ([Friend and Barron, 2024](#); [Iversen and Hauksdottir, 2020](#)). A six-item scale was developed specifically for this study to capture these dimensions. In constructing the scale, we emphasized key aspects identified in previous research, including theoretical knowledge, practical application, and strategies for effective collaboration. The scale's development was inspired by insights from [Cameron et al. \(2014\)](#), [Hesjedal et al. \(2015a\)](#), [Iversen and Hauksdottir \(2020\)](#), [Reeves and Hean \(2013\)](#), and [Ødegård \(2006\)](#). Participants rated their responses on a 10-point anchor response scale, ranging from (1) "Not at all true" to (10) "Extremely true." See [Appendix A](#) for item wording.

### 2.3.3 Perceived trust

The perceived trust scale aimed to assess EPS counselors' perceptions of the trust that kindergarten and school staff have in them. It should be noted that this scale was not operationalized to capture EPS counselors' perceived trust from child welfare or health services. Perceived trust was assessed using an eight-item scale developed for this study. Participants were asked the following question: "Do staff in kindergarten and schools trust you as a professional when it comes to." This was followed by eight key work areas relevant to EPS counselors: (1) Expert assessment, (2) Follow-up and evaluation of special educational assistance/special education, (3) Individual guidance and counseling for employees, (4) Training or initiatives to enhance employee competence, (5) Collaboration with caregivers, (6) Direct work with children and young people, (7) Dissemination and administration of relevant laws and regulations, (8) Safeguarding children's right to participation. Participants rated their responses on a five-point Likert scale, ranging from (1) "Extremely low trust" to (5) "Extremely high trust."

### 2.3.4 Affective commitment

The workplace affective commitment scale, adapted from [Elstad et al. \(2016\)](#), consisted of four items. This scale aimed to assess EPS counselors' emotional attachment to their jobs and their commitment to EPS as an organization. Participants were asked to evaluate how well various statements regarding affective commitment applied to them. Participants rated their responses on a 10-point anchor response scale, ranging from (1) "Not at all true" to (10) "Extremely true."

### 2.3.5 Time pressure

The time pressure scale was adapted from [Skaalvik and Skaalvik \(2011\)](#) and [Brandmo et al. \(2019\)](#) to fit the EPS setting. This scale aimed to examine the extent to which EPS counselors experience time pressure and how a heavy workload affects their ability to perform their duties as intended. Participants were asked to rate the applicability of various statements related to time pressure. Participants rated their responses on a 10-point anchor response scale, ranging from (1) "Not at all true" to (10) "Extremely true."

### 2.3.6 Interprofessional collaboration

The interprofessional collaboration scale, comprising five items, was developed specifically for this study. This scale aimed to assess

how EPS counselors evaluate their collaboration with key stakeholders, including kindergartens and schools, child welfare services, and health services professionals such as primary care physicians, pediatricians, and child and adolescent psychiatrists. The initial analyses suggested that this concept was best represented by a two-factor solution, with one factor accounting for positive experiences of interprofessional collaboration and another factor accounting for negative experiences of interprofessional collaboration. The positive experiences factor accounted for utility, efficiency, and professional development related to interprofessional collaboration. The negative experiences factor accounted for exhaustion and difficulties related to interprofessional collaboration. Participants rated their responses on a 10-point anchor response scale ranging from (1) "Not at all true" to (10) "Extremely true."

### 2.3.7 Job satisfaction and intention to leave

To assess job satisfaction, we adapted the scale developed by [Skaalvik and Skaalvik \(2011\)](#) to fit the EPS setting. The aim was to evaluate how satisfied EPS counselors are with their jobs and whether they perceive their work as meaningful and valuable. Participants rated their responses on a 10-point anchor response scale ranging from (1) "Not at all true" to (10) "Extremely true."

EPS counselors' intention to leave the profession was measured using a four-item scale adapted from [Skaalvik and Skaalvik \(2011\)](#) to reflect the EPS context. This scale examined the extent to which counselors considered leaving their profession. Participants rated their responses on a 10-point anchor response scale ranging from (1) "Not at all true" to (10) "Extremely true."

## 2.4 Analytical approaches

We conducted data exploration and preliminary analyses using SPSS, followed by structural equation modeling (SEM) with Mplus 8.5 for more complex model testing ([Muthén and Muthén, 2012](#)). The dimensionality of the constructs was assessed through confirmatory factor analysis (CFA). To evaluate the overall model fit, we used chi-square statistics along with additional fit indices provided by Mplus 8.5 ([Muthén and Muthén, 2012](#)), specifically: Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). To evaluate the goodness of fit, and taking the model complexity into account, the following cut-off criteria were used to evaluate a good model fit after reviewing the literature: CFI  $\geq 0.95$ , RMSEA  $\leq 0.05$ , and SRMR  $\leq 0.06$  ([Hu and Bentler, 1999](#); [Marsh et al., 2004](#); [Schermelleh-Engel et al., 2003](#)).

## 3 Results

### 3.1 Preliminary analysis

As an initial step, we examined the psychometric properties of all variables. Descriptive statistics, including correlations and reliability estimates, were analyzed using SPSS (see [Table 1](#)). A basic measurement model was tested using confirmatory factor analysis (CFA) with all latent variables: knowledge about collaboration, perceived trust, affective commitment, time pressure, positive and negative interprofessional collaboration, job satisfaction, and intention

TABLE 1 Correlations, descriptive statistics and reliability.

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Knowledge about collaboration												
2. Experienced trust	0.40***											
3. Affective commitment	0.19***	0.25***										
4. Time pressure	−0.06	0.02	0.02									
5. Pos_collab kindergarten and schools	0.25***	0.29***	0.1	−.15**								
6. Neg_collab kindergarten and schools	−0.22***	−0.27***	−0.10*	0.17***	−0.60***							
7. Pos_collab child welfare services	0.11*	0.04	0.12*	−0.13**	0.27***	−0.16**						
8. Neg_collab child welfare services	−0.04	−0.04	−0.05	−0.05	0.12*	0.34***	−.55***					
9. Pos_collab health services	0.15**	0.09	0.10*	−0.04	0.37***	−0.22***	0.52***	−0.22***				
10. Neg_collab health services	−0.12*	−0.1	−0.11*	0.11*	−0.19***	0.39***	−0.19***	0.50***	−0.47***			
11. Job satisfaction	0.32**	0.37***	0.58***	−0.25***	0.29***	0.26***	0.20***	−0.15**	0.27***	−0.26***		
12. Intention to leave	−0.06	−0.13**	−0.36***	0.28***	−0.15**	0.22***	−0.09	0.12*	−0.09	0.15**	−0.74***	
Mean	7.69	3.96	7.28	7.34	7.93	3.35	5.35	3.7	6.55	3.13	8.36	2.5
Standard deviation	1.62	0.66	2.21	2.55	1.24	1.79	2.09	2.23	1.85	2	1.58	2.16
Reliability (ω)	0.92	0.79	0.88	0.9	0.78	0.85 <sup>a</sup>	0.89	0.84 <sup>a</sup>	0.89	0.86 <sup>a</sup>	0.88	0.94

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .  
<sup>a</sup>Measured in Cronbach's Alpha ( $\alpha$ ).

to leave. The model properly fit the data:  $\chi^2(920) = 2067$ ,  $p < 0.001$ ; RMSEA = 0.044 [90% CI = 0.042–0.047]; CFI = 0.92; SRMR = 0.049. Factor loadings for most items ranged from 0.54 to 0.95, indicating adequate measurement properties. However, three items—item #7 (0.47), and item #12 (0.49) from the trust scale, and item #23 (0.47) from the interprofessional collaboration with kindergarten and schools scale—exhibited lower factor loadings. After evaluating each scale and the overall model, these items were maintained in their scales despite their low loadings.

Beyond assessing the psychometric properties, we examined potential multi-level structures in the data. Some factors exhibited intraclass correlations (ICC) greater than 0.05 at the EPS office level, suggesting a proportion of variance attributable to office-level clustering. Specifically, the following factors had ICC values exceeding 0.10: positive interprofessional collaboration with health services (0.13), positive interprofessional collaboration with child welfare services (0.13), negative interprofessional collaboration with child welfare services (0.23), job satisfaction (0.17), intention to leave (0.14) and time pressure (0.20). These findings indicate that EPS office level explained a significant proportion of the variance. Ideally, a multi-level analysis should be carried out (Heck and Thomas, 2020). However, our data included 102 clusters (EPS offices) with fewer than five counselors, which is below the recommended minimum cluster size

for obtaining reliable parameter estimates in multi-level analysis (Clarke, 2008). Additionally, some rural EPS offices had only one EPS counselor, further complicating the feasibility of a multi-level approach. After scrutinizing the literature on this specific analytic challenge, we decided to use robust estimation methods to mitigate potential biases. Specifically, we employed Maximum Likelihood with Robust Standard Errors and Chi-Square correction (MLR, MLF) in Mplus to ensure unbiased parameter estimates at the individual level (Abadie et al., 2023; Clarke, 2008).

### 3.2 Structural model testing

With the hypothesized model as a point of departure, we specified three structural models, one for each of the EPS collaboration partners: (1) kindergarten and schools, (2) child welfare services, and (3) health services. It should be noted that the only variation across these models was in the evaluation of interprofessional collaboration with the respective partners, while all other variables remained consistent. First, we tested the model for interprofessional collaboration with kindergartens and schools (model 1). Consequently, we regressed the two dependent variables (job satisfaction and intention to leave) on the independent variables (knowledge about

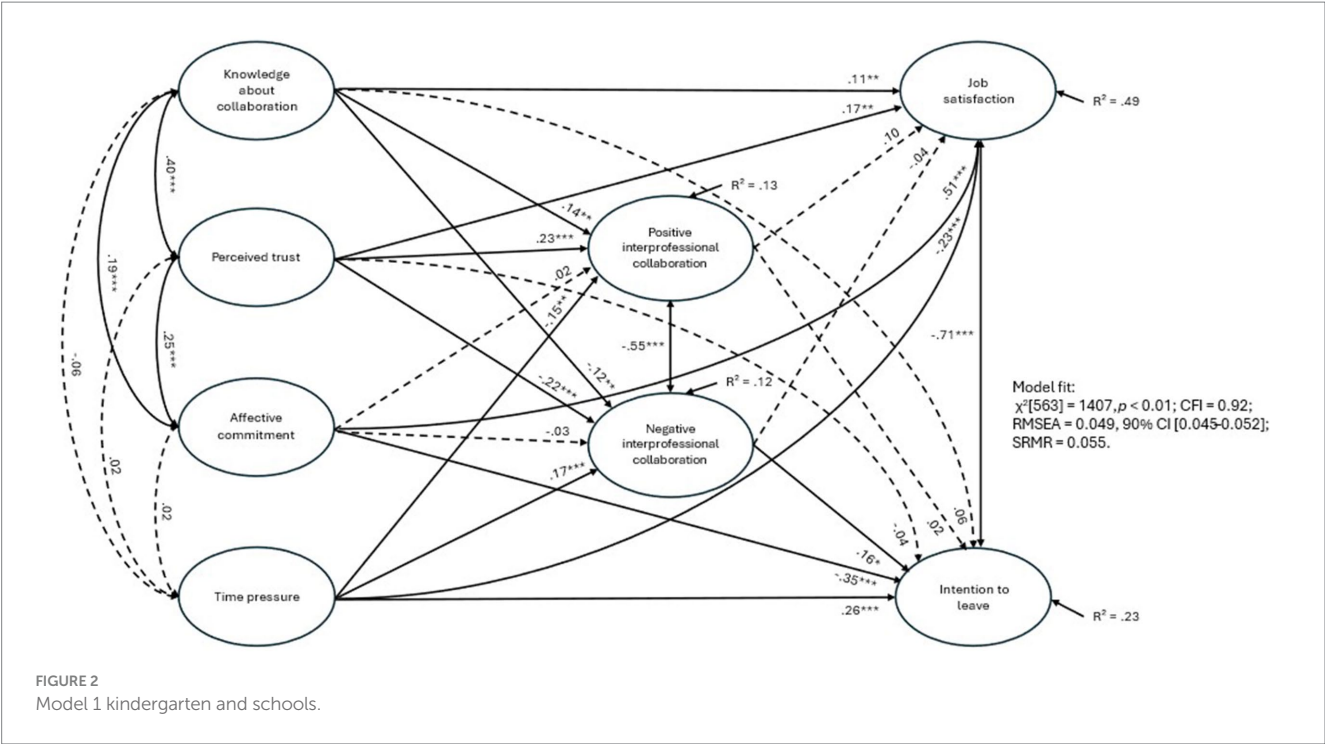


TABLE 2 Significant indirect effects in Model 1.

	$\beta$
Perceived trust $\rightarrow$ Negative interprofessional collaboration $\rightarrow$ Intention to leave	$-0.18^{**}$
Time pressure $\rightarrow$ Negative interprofessional collaboration $\rightarrow$ Intention to leave	$0.02^*$

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

collaboration, trust, affective commitment, and time pressure) and the intermediate variables (positive and negative evaluations of interprofessional collaboration with kindergarten and schools). In addition, we regressed the intermediate variables on the independent variables. Model 1 revealed a good fit to the data:  $\chi^2[563] = 1,407$ ,  $p < 0.01$ ; CFI = 0.92; RMSEA = 0.049, 90% CI [0.045–0.052]; SRMR = 0.055 (Figure 2; Table 2).

In this model, knowledge about collaboration was significantly associated with job satisfaction ( $\beta = 0.11$ ,  $p < 0.01$ ), positive interprofessional collaboration ( $\beta = 0.14$ ,  $p < 0.01$ ), and negative interprofessional collaboration ( $\beta = -0.12$ ,  $p < 0.01$ ). However, its association with intention to leave was not significant ( $\beta = 0.06$ ). Perceived trust was significantly associated with job satisfaction ( $\beta = 0.17$ ,  $p < 0.01$ ), positive interprofessional collaboration ( $\beta = 0.23$ ,  $p < 0.001$ ), and negative interprofessional collaboration ( $\beta = -0.22$ ,  $p < 0.001$ ), but not with intention to leave ( $\beta = -0.04$ ). Affective commitment was significantly associated with job satisfaction ( $\beta = 0.51$ ,  $p < 0.001$ ) and intention to leave ( $\beta = -0.35$ ,  $p < 0.001$ ), but it was not significantly associated with either positive ( $\beta = 0.02$ ) or negative ( $\beta = -0.03$ ) interprofessional collaboration with kindergartens and schools. Time pressure was negatively associated with job satisfaction ( $\beta = -0.23$ ,  $p < 0.001$ ) and positive interprofessional collaboration ( $\beta = -0.15$ ,  $p < 0.01$ ). In contrast, time

pressure was positively associated with both negative interprofessional collaboration ( $\beta = 0.17$ ,  $p < 0.001$ ) and intention to leave ( $\beta = 0.26$ ,  $p < 0.001$ ). The paths from positive interprofessional collaboration to job satisfaction ( $\beta = 0.10$ ) and intention to leave ( $\beta = 0.02$ ) were not significant. Similarly, negative interprofessional collaboration was not significantly associated with job satisfaction ( $\beta = -0.04$ ), while it was significantly associated with intention to leave ( $\beta = 0.16$ ,  $p < 0.05$ ). Additionally, two significant indirect paths were identified: (1) perceived trust influenced intention to leave indirectly via negative interprofessional collaboration, suggesting that negative collaboration mediates the effect of perceived trust on intention to leave and (2) time pressure also influenced intention to leave indirectly through negative interprofessional collaboration. This indicates that higher time pressure contributes to more negative collaboration experiences, which in turn increases the likelihood of considering leaving the profession. Altogether, the dependent variables (inclusive intermediate) explained 49% of the variance in job satisfaction, 23% in intention to leave, 13% in positive interprofessional collaboration, and 12% in negative interprofessional collaboration.

Overall, EPS counselors with higher levels of knowledge about collaboration, greater perceived trust, and lower perceived time pressure tended to evaluate interprofessional collaboration more positively. Affective commitment was not significantly associated with either positive or negative interprofessional collaboration, yet it emerged as the strongest predictor of both job satisfaction and intention to leave. Moreover, time pressure was a strong negative predictor of job satisfaction and a strong positive predictor of intention to leave, emphasizing its impact on EPS counselors' professional well-being. The results also indicate a weak but significant relationship between negative interprofessional collaboration and intention to leave, suggesting that poor collaboration experiences may contribute to intention to leave. Following the initial model testing for interprofessional collaboration with kindergartens and schools



(Model 1), we extended our analysis by testing a second model focused on child welfare services (Model 2). This model maintained the same structure as Model 1, with the only changes being the two interprofessional collaboration variables tailored to child welfare services. Model 2 also demonstrated a good fit to the data ( $\chi^2$  (563) = 1,377,  $p < 0.01$ ; CFI = 0.93; RMSEA = 0.048, 90% CI [0.044–0.051]; SRMR = 0.054). Similarly, we tested Model 3, which assessed interprofessional collaboration with health services, adjusting the collaboration variables accordingly. This model also fit the data well ( $\chi^2$  (563) = 1,377,  $p < 0.01$ ; CFI = 0.93; RMSEA = 0.048, 90% CI [0.044–0.051]; SRMR = 0.054). A comparative summary of Models 1, 2, and 3 is presented in Table 3. A visual representation of models 2 and 3 can be found in Appendices B, C.

When we compared the paths in the kindergarten and school model (Model 1) with those in the child welfare services (Model 2) and health services (Model 3) models, some differences were observed. Notably, some significant findings in the kindergarten and school model did not emerge in the child welfare and health services models, which may be attributed to the closer collaboration between kindergartens and schools compared to the other two services. Knowledge about collaboration and perceived trust were significantly associated with both positive and negative interprofessional collaboration in the kindergarten and school model. However, in the health services model, knowledge about collaboration was only significantly associated with positive interprofessional collaboration, and perceived trust showed no significant associations in either the child welfare or health services models. Affective commitment was significantly associated with positive interprofessional collaboration only in the child welfare services model but had no significant associations in the kindergarten and school or health services models.

A consistent finding across all three models was the significant association between time pressure and negative interprofessional collaboration, highlighting that time constraints negatively influence EPS counselors' evaluations of interprofessional collaboration regardless of the service context. Additionally, time pressure was significantly associated with positive interprofessional collaboration in the kindergarten, school, and child welfare services models, indicating

that it may be essential in shaping interprofessional collaborations. Only two significant associations were identified regarding job satisfaction and intention to leave: positive interprofessional collaboration was significantly related to job satisfaction in the health services model, while negative interprofessional collaboration was significantly associated with intention to leave in the kindergarten and school model. Beyond these findings, no strong associations were observed between interprofessional collaboration, job satisfaction, and intention to leave among EPS counselors.

## 4 Discussion

This study examined the relationship between interprofessional collaboration, job satisfaction, and intention to leave among EPS counselors. Specifically, it focused on how knowledge about collaboration, trust, affective commitment, and time pressure relates to job satisfaction and EPS counselors' interprofessional collaboration with key stakeholders, including kindergartens, schools, child welfare services, and health services. The study employed the PINCOM model as an overarching framework for understanding how professionals perceive interprofessional collaboration. According to the PINCOM model, interprofessional collaboration can be reflected at three levels—individual, group, and organizational—each with specific influencing factors (Ødegård, 2006). This study has investigated additional factors known to affect interprofessional collaboration. Knowledge about collaboration, trust, affective commitment, time pressure, job satisfaction, and intention to leave can be placed at the individual level in the PINCOM model. Knowledge about collaboration and trust can also be applied at the group level, as they relate to social support and leadership. Affective commitment and time pressure are related to the organizational level, as these factors may be connected to the organizational culture and environment. By situating these variables within the PINCOM framework, this study adds to the possibilities for further investigation into how individual, group, and organizational

TABLE 3 Comparison of paths in Models 1, 2, and 3.

Path	Model 1 Kindergarten and schools	Model 2 Child welfare services	Model 3 Health services
Knowledge about collaboration → Pos_collab	$\beta = 0.14^{**}$	$\beta = 0.09$	$\beta = 0.13^*$
Knowledge about collaboration → Neg_collab	$\beta = -0.12^{**}$	$\beta = 0.01$	$\beta = -0.09$
Perceived trust → Pos_collab	$\beta = 0.23^{***}$	$\beta = -0.03$	$\beta = 0.01$
Perceived trust → Neg_collab	$\beta = -0.22^{***}$	$\beta = -0.04$	$\beta = -0.04$
Affective commitment → Pos_collab	$\beta = 0.02$	$\beta = 0.11^*$	$\beta = 0.07$
Affective commitment → Neg_collab	$\beta = -0.03$	$\beta = -0.03$	$\beta = 0.06$
Time pressure → Pos_collab	$\beta = -0.15^{**}$	$\beta = -0.13^{**}$	$\beta = -0.05$
Time pressure → Neg_collab	$\beta = 0.17^{***}$	$\beta = 0.13^{**}$	$\beta = 0.11^*$
Pos_collab → Job satisfaction	$\beta = 0.10$	$\beta = 0.08$	$\beta = 0.14^{**}$
Neg_collab → Job satisfaction	$\beta = -0.04$	$\beta = -0.05$	$\beta = -0.10$
Pos_collab → Intention to leave	$\beta = 0.02$	$\beta = 0.01$	$\beta = -0.01$
Neg_collab → Intention to leave	$\beta = 0.16^*$	$\beta = 0.08$	$\beta = 0.09$

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

factors may interact to influence job satisfaction and intention to leave among EPS counselors.

Table 4 presents a visual representation of the relationships between the variables in this study and the different levels of the PINCOM model (Ødegård, 2006). Some variables are positioned at more than one level, as they encompass both individual experiences and broader relational or structural dynamics (Table 4).

#### 4.1 The role of knowledge, trust, affective commitment, and time pressure in EPS counselors' interprofessional collaboration

Among the predictors examined, perceived trust was the strongest predictor of interprofessional collaboration between EPS counselors and kindergartens and schools. The most plausible explanation for this finding is the operationalization of the trust scale. The scale specifically captured EPS counselors' perceptions of trust from kindergartens and schools, excluding child welfare and health services. Since respondents were asked whether professionals in kindergartens and schools trusted them in various work-related tasks, it is unsurprising that perceived trust emerged as the strongest predictor. This finding aligns with previous research demonstrating that trust is a critical factor in interprofessional collaboration (e.g., Wei et al., 2022; Ødegård, 2006) and is considered a key element in the development of collaborative practice (San Martín-Rodríguez et al., 2005). The findings might have differed if the trust scale was operationalized to include child welfare and health services. Consequently, future research should explore whether perceived trust holds the same significance for interprofessional collaboration between EPS counselors and other services.

Despite its importance, establishing trust in collaboration with schools has been reported as a challenge for EPS counselors (Kolnes and Midthassel, 2022). Our findings reinforce that trust particularly influences EPS counselors' collaboration with kindergartens and schools. However, this contrasts with Elstad et al. (2016), who found that trust was not significantly associated with collaboration among

teachers, suggesting that the role of trust may differ across professional groups and contexts.

Time pressure was significantly associated with interprofessional collaboration across all three collaboration partners—kindergartens and schools, child welfare services, and health services. This finding underscores the crucial role of available time and space for engaging in interprofessional collaboration, a factor previously identified as essential for successful interprofessional practices (San Martín-Rodríguez et al., 2005). Conversely, a lack of time has consistently been reported as a significant barrier to interprofessional collaboration (Villarreal, 2018). Similarly, Moen et al. (2018) identified time constraints and limited external professional resources as primary challenges in collaboration between EPS counselors and schools. The results of this study reinforce these findings, demonstrating that time pressure negatively impacts EPS counselors' evaluations of interprofessional collaboration. Specifically, EPS counselors report more positive evaluations of collaboration when they perceive lower time pressure. This aligns with previous research emphasizing the importance of sufficient time availability in facilitating interprofessional collaboration (e.g., San Martín-Rodríguez et al., 2005; Villarreal, 2018).

EPS counselors' self-assessed knowledge about collaboration was significantly associated with their interprofessional collaboration with kindergartens and schools, and health services but not with child welfare services. One possible explanation for this may be the frequency of collaboration. If EPS counselors engage less frequently with child welfare services, they may have fewer opportunities to apply their collaboration knowledge, making gaps in their expertise less noticeable. Additionally, interprofessional collaboration with child welfare services received the lowest ratings by EPS counselors, suggesting that systemic or structural barriers may hinder the application of collaboration knowledge in this context. While Friend and Barron (2024) emphasize that research on collaboration knowledge and skills remains limited, previous studies have established a link between knowledge about collaboration and interprofessional collaboration. For example, Nooteboom et al. (2021) found that knowledge and training in interprofessional collaboration act as key facilitators, while Roberts (2003) found that prior training in collaborative practices predicted the quality of collaboration. The findings of this study align with previous research, reinforcing the idea that EPS counselors' knowledge about collaboration influences their evaluation of interprofessional collaboration. Given the scarcity of research on collaboration knowledge and skills (Friend and Barron, 2024), this study makes an important contribution by emphasizing the role of knowledge and training in fostering effective interprofessional collaboration between EPS counselors and their collaboration partners.

In this study, EPS counselors' affective commitment was not significantly associated with interprofessional collaboration among EPS counselors. This result somewhat contradicts previous research, which has found positive associations between affective commitment and interprofessional collaboration. For instance, Ndibu et al. (2019) reported a significant relationship between these factors among mental health workers, while Elstad et al. (2016) found that affective commitment had a direct positive effect on collaboration among teachers. A possible explanation for this discrepancy is that interprofessional collaboration in the current study involves external professionals from services outside the EPS. This distinction may influence the relevance of affective commitment to the workplace, as

TABLE 4 Placement of study variables within the PINCOM model levels.

PINCOM levels	Description (Aspects included in the PINCOM model)	Variables in this study
Individual level	Work motivation Role expectations Personality Professional power	Knowledge about collaboration Trust Affective commitment Time pressure Job satisfaction Intention to leave
Group level	Leadership Coping Communication Social support	Knowledge about collaboration Trust
Organizational level	Organizational culture Organizational aims Organizational domain Organizational environment	Affective commitment Time pressure

EPS counselors primarily collaborate with professionals from other services rather than within their organization. Consequently, their commitment to the EPS may play a lesser role in shaping collaborative practices with external stakeholders.

## 4.2 The association between interprofessional collaboration and EPS counselors' job satisfaction

Since interprofessional collaboration is a core component of EPS counselors' work (e.g., Segal et al., 2017), we hypothesized that it would be associated with EPS counselors' job satisfaction and intention to leave. However, this hypothesis was only partially supported. The results indicate that interprofessional collaboration is not strongly associated with job satisfaction or intention to leave, with two notable exceptions: (1) positive interprofessional collaboration was significantly associated with job satisfaction in the health service model, and (2) negative interprofessional collaboration was significantly associated with intention to leave in the kindergarten and school model. These findings partially contradict the study by Young et al. (2021), which found that EPS counselors identified effective collaboration as a key factor contributing to their job satisfaction. The results from the health service model align with this perspective, as EPS counselors may perceive collaboration with health services as more structured, specialized, and impactful, making them more satisfied when their collaboration with health services is successful. In contrast, negative interprofessional collaboration with kindergartens and schools appears to have a stronger influence on intention to leave. This may be because kindergartens and schools are EPS counselors' closest and most frequent collaboration partners, meaning that persistent collaboration challenges in these settings could lead to more frustration and increased intention to leave.

The EPS counselors in this study reported high levels of job satisfaction, with an average score of 8.37 on a 10-point scale. This aligns with findings Young et al. (2021), who also found that most EPS counselors were satisfied with their work. The most dominant predictor of job satisfaction—by a considerable margin—was EPS counselors' affective commitment to the EPS as an organization. Affective commitment, which refers to an employee's emotional attachment to, identification with, and involvement in their organization (Allen and Meyer, 1990), was the most crucial factor in determining job satisfaction in this study. This finding reinforces previous research demonstrating robust links between affective commitment, job satisfaction, intention to leave, and job performance (Caricati et al., 2015; Gün et al., 2021; Ndibu et al., 2019). Notably, Galletta et al. (2016) found that higher levels of job satisfaction were associated with stronger affective commitment to the team, and this association was more potent when collective perceptions of positive collaboration were higher. The results of this study provide further support for this relationship, emphasizing that affective commitment is not just a contributing factor but perhaps the most influential driver of job satisfaction among EPS counselors. Additionally, the results revealed low levels of intention to leave among EPS counselors, with an average score of 2.51 on a 10-point scale. This contrasts with findings from Young et al. (2021), where 47% of EPS counselors reported that they were considering leaving the profession. This discrepancy may reflect differences in sample characteristics,

organizational structures, or contextual factors influencing job retention in different studies.

Moreover, time pressure emerged as a significant predictor of job satisfaction among EPS counselors in this study. As predicted, EPS counselors who reported higher levels of time pressure were more likely to consider leaving their profession. These findings align with previous research demonstrating a strong correlation between job satisfaction and intention to leave, with lower job satisfaction systematically linked to increased stress and a higher likelihood of leaving the profession (Skaalvik and Skaalvik, 2011). Similar patterns have been observed among teachers, where excessive time pressure has been associated with decreased job satisfaction and a greater risk of burnout (Skaalvik and Skaalvik, 2011). Beyond time pressure, perceived trust from kindergarten and school personnel was also positively associated with job satisfaction. Since collaboration with these professionals is a central aspect of EPS counselors' work tasks, experiencing that professionals in kindergarten and schools trust their expertise and contributions likely enhances their overall job satisfaction. This finding aligns with prior research demonstrating that trust is crucial to employee satisfaction (Roberts and David, 2020). These results highlight the importance of reducing time constraints and establishing trust-based professional relationships to support EPS counselors' well-being and retention.

## 5 Limitations and implications for further research

This study has limitations that should be acknowledged. First, constructs were assessed using a self-reported questionnaire, which may introduce response bias. Self-reports capture subjective perceptions rather than objective measurements, potentially leading to discrepancies between reported and actual behaviors (Chan, 2009). Additionally, self-reports are susceptible to social desirability bias, where respondents may provide answers they perceive as more socially acceptable rather than reflecting their true experiences (Podsakoff et al., 2003). Similarly, it is possible that EPS counselors who responded to the survey were more positive about their working conditions than those who failed to do so, as professionals with higher levels of engagement in their work are presumably more likely to participate in research that seeks to improve it. Future research should employ methodological triangulation by supplementing survey data with observational methods and/or in-depth interviews to enhance validity. This would provide a more comprehensive understanding of interprofessional collaboration in the EPS setting. Second, this study has used a cross-sectional design, which limits the ability to draw conclusions about causal relationships. While structural equation modeling (SEM) uses causal terminology (e.g., direct and indirect effects), it does not establish causality. Although the findings suggest associations between the studied variables, alternative explanations cannot be ruled out. Future research, employing longitudinal or experimental designs, is needed to further investigate the directionality and causal nature of these relationships.

Third, this study exclusively reflects the perspectives of EPS counselors and does not incorporate the viewpoints of their collaboration partners, including professionals from kindergartens, schools, child welfare services, and health services. As a result, it presents only one side of the collaborative process. Future studies should integrate the perspectives of these

stakeholders to develop a more holistic understanding of interprofessional collaboration within the educational context. Lastly, the measurement of trust in this study was limited to collaboration with kindergartens and schools. Consequently, the role of perceived trust in interprofessional collaboration with child welfare and health services was not examined. This fact limits the ability to assess how trust influences interprofessional collaboration, job satisfaction, and intention to leave in these contexts. Future research should incorporate trust measurements specific to child welfare and health services to provide a more nuanced understanding of its impact on EPS counselors' collaborative experiences.

## 6 Conclusion

EPS counselors play a crucial role in supporting students with special educational needs throughout their education and training. As alluded earlier, research on interprofessional collaboration involving EPS counselors is limited, and only a few areas seem to be scrutinized in research (e.g., [Arora et al., 2019](#); [Kolnes et al., 2021](#); [Pellegrino et al., 2015](#); [Ritzema et al., 2014](#)). This study contributes to the growing body of research on interprofessional collaboration in the educational setting by identifying key factors influencing EPS counselors' collaborative efforts. The findings emphasize that knowledge about collaboration, perceived trust, and sufficient time are essential for effective interprofessional collaboration, particularly with kindergartens and schools. While trust and time availability are well-established facilitators, the role of knowledge about collaboration has been less explored, making this study an important contribution to understanding its significance. Additionally, EPS counselors reported high job satisfaction, with affective commitment emerging as the most influential. Although interprofessional collaboration was not generally linked to job satisfaction or intention to leave, a critical exception was identified: when collaboration with kindergartens and schools was perceived as poor, EPS counselors were significantly more likely to consider leaving their positions. Given that these institutions represent their primary collaboration partners, low evaluations of interprofessional collaboration in this context appear to contribute to increased intention to leave. These findings underscore the importance of providing EPS counselors with the necessary knowledge, skills, trust, and time to collaborate effectively. Further research should investigate the relationship between collaboration dynamics and job satisfaction to inform the development of strategies that enhance interprofessional collaboration and support EPS counselors in their roles.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## Ethics statement

The studies involving humans were approved by The Norwegian Agency for Shared Services in Education and Research (SIKT). The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed

consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

## Author contributions

HH: Visualization, Data curation, Project administration, Conceptualization, Validation, Methodology, Investigation, Formal analysis, Writing – review & editing, Writing – original draft. EH: Writing – original draft, Visualization, Supervision, Writing – review & editing, Conceptualization, Methodology, Investigation. KO: Writing – review & editing, Investigation. MT: Writing – review & editing, Investigation. CH: Writing – review & editing, Investigation. DC: Investigation, Writing – review & editing. CB: Data curation, Writing – original draft, Project administration, Visualization, Validation, Software, Formal analysis, Supervision, Methodology, Conceptualization, Investigation, Writing – review & editing.

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## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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## Supplementary material

The Supplementary material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2025.1605433/full#supplementary-material>



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