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Remote Special Educational Consultation in Swedish Rural Schools: Experiences of Special Educators and Class Teachers

Kristina Ström

Åbo Akademi University, Finland; Nord University, Norway

kristina.strom@abo.fi

Gerd Pettersson

Umeå University, Sweden

gerd.pettersson@umu.se

Kim Wickman

Umeå University, Sweden

kim.wickman@umu.se

Abstract

With advances in communication technologies, remote special educational consultation has become a promising strategy for indirect special education provision aiming to support students with special educational needs as well as their teachers in remote and rural areas. This study explores how special educators in a rural municipality in Sweden offer remote special educational consultation to teachers and how the two teacher categories experience remote special educational consultation. The empirical data of the study consist of special educators' and teachers' responses to an online questionnaire (N=11). The analysis revealed themes reflecting experienced challenges as well as opportunities. The challenges relate to lack of professional commitment and consensus, lack of school leaders' trust, knowledge and support, and barriers associated with distance and technology, while opportunities relate to increased access to special educational competence, increased structure in consultation and increased professional development and collaboration. The results of this study highlight the potential value of remote special educational consultation as an acceptable, cost-effective, and efficient way of increasing access to special educational expertise and providing special educational support to teachers working in rural and underserved schools.

Keywords: *remote educational consultation, special education, rural school, special educator*

Introduction

Although rural areas and rural schools differ both among and within countries, rural schools often face a range of common constraints, such as geographic isolation, staff shortages and limitations in economic and human resources, available expertise, and professional development opportunities (Bagley & Hillyard, 2011; Berry & Gravelle, 2013). Geographic and other constraints are not the only features of rural schools' situations, which are complex, diverse and socio-politically contested (Fargas-Malet & Bagley, 2022; Hargreaves, 2009). However, associated challenges may hinder rural schools' efforts to meet quality and equality demands and restrict their capacities to support students with diverse learning needs (Cedering & Wihlborg, 2020; Farmer et al., 2018; Lind & Stjernström, 2015). Teachers working in rural schools are in key

positions for supporting all students, particularly students with special educational needs. However, the challenging conditions may affect teachers' opportunities to access professional support enabling high quality learning for students with support needs (Berry, 2012). Although teachers in rural schools have often developed creative solutions out of necessity (Pettersson & Ström, 2019), systematic strategies, resources and sustainable professional development activities for teachers are crucial (Castro et al., 2010; Pettersson et al., 2016).

A well-established support strategy intended to increase teachers' professional competence is 'educational (school) consultation', an umbrella term for various kinds of consultation that occur in a school context (Erchul & Sheridan, 2014). There is extensive research literature on educational consultation, focusing mostly on psychologists and other specialists offering consultation on learning disabilities and behaviour-related challenges to teachers and other school staff (e.g. Erchul & Sheridan, 2014). Educational consultation is an essential element of indirect special education service provision aiming to support students with special educational needs in different educational settings (Idol, 2006). Traditionally, educational consultation was of prescriptive nature, but with the increasing prioritisation of inclusion, a collaborative form of consultation has gained ground in which the special educator played a prominent role (Cook & Friend, 2010). A specific term to describe consultation provided by special educators is special educational consultation. Idol (2006) defines special educational consultation as a form of indirect special education service delivery in which a consulting special educator supports a teacher who has students with special education needs in his or her classroom. Here, we use the term educational consultation to describe consultation in school contexts generally and special educational consultation when referring to the special educators' consulting activities. The term 'special educator' encompasses special education teachers as well as special educational needs coordinators.

Advances in communication technologies and other digital solutions have broadened in-person consultation to distance consultation, which has facilitated service provision and support to remote regions. Distance consultation developed initially in health contexts and gradually spread to psychological and educational settings (Bice-Urbach et al., 2018; Fischer et al., 2018). During the COVID-19 pandemic consultation at a distance developed further (Schaffer et al., 2021), with increasing variation in the terminology applied across disciplines. Frequent terms are telehealth, telemedicine, teleconsultation, videoconferencing, technology-mediated consultation, tele-classroom consultation and remote consultation (e.g. Bice-Urbach et al., 2018; Fischer et al., 2018; Saggars et al. 2021). Here, we use the term 'remote educational consultation' to describe the activity in general, and 'remote special educational consultation' (RSEC) when referring to consultation in the context of special education. In line with a previous study (Pettersson & Ström, 2020) we define RSEC as special educators' provision of consultation services with telecommunication technologies to teachers working in rural schools.

Although remote educational consultation has gained ground, studies on RSEC are sparse. Most published studies have focused on the support provided by school psychologists, behaviour specialists and multi professional teams to school staff in addressing students' behaviour related challenges (e.g. Fischer et al., 2018). However, a few studies have addressed consultation services offered to teachers by special educators, either as single consultants or as members of educational teams. Knowles et al. (2017) studied effects of a special educator's behaviour consultation on the classroom climate in a rural school, while Sussman et al. (2022) examined how an educational team including special educators contributed to schools' work with multi-tiered support systems for learning and behaviour. In Sweden, Pettersson and Ström (2017, 2019, 2020) in a three-year project funded by Swedish Special Education Authority investigated how special educators and teachers in a Swedish rural municipality collaborated, how special educators implemented RSEC and to what extent RSEC supported teachers' professional development. The

present study, exploring perceptions and experiences of RSEC is part of this larger project. To contextualise the study, we start by providing a picture of the Swedish rural school context.

The Swedish Rural School Context

Due to demographic and geographic differences across countries, there is no common definition of what constitutes a school in a rural area (Anderson, 2010). This applies for Sweden as well. Different Swedish authorities define rural areas and rural schools differently. Due to lack of common definition, we use rural school characteristics identified by Pettersson (2017) in an empirical study comprising 58 schools from an area covering two thirds of Sweden. The rural school characteristics include location in a sparsely populated municipality (with less than 7 inhabitants per square kilometre and less than 20 000 inhabitants), low number of students (up to 55), long distance to municipality centre (on average 45 minutes by car), financial constraints and few teachers (on average 3.7 teachers) and other professionals such as special educators. Swedish special educators as well as principals working with rural schools work primarily in the municipality centre (Pettersson & Näsström, 2017). This means that teachers in rural schools work under different conditions from their colleagues in urban schools. They have few colleagues, if any, and few students but not fewer pedagogical and special educational challenges (Pettersson & Ström, 2017). Multi-grade teaching is common, and the teachers' work is multi-faceted. The constant threat of school closure and concerns about failure to reach quality standards affect the school staff (Cedering & Wihlborg, 2020; Pettersson et al., 2016). On the other hand, no findings indicate that rural schools are inferior to urban schools in terms of student performance (Åberg-Bengtsson, 2009). The environment is usually calm and safe, and the teacher can identify and pay attention to individual students' support needs at an early stage (Pettersson & Ström, 2019). However, despite research indications that the learning environment in rural schools has positive properties, Pettersson and Ström (2019) concluded that teachers working in rural schools need and value support from special educators.

A Collaborative Perspective on Special Educational Consultation

Since the early 1990s, Swedish special educators have been expected to function as consultants to teacher colleagues, principals, parents, and other stakeholders. Although policy documents regulating the work of special educators, (Swedish Code of Statutes SFS, 2007) do not specify the content of consultation or the consultation strategies, they have two main tasks: to give advice and provide services as 'qualified dialogue partners' (Sundqvist et al., 2014). The main objective of the special educators' consulting role is to promote the development of inclusive learning environments by helping teachers to attend to learner diversity (von Ahlefeldt Nisser, 2014). The special educators' consulting role has become widely acknowledged (Lindqvist, 2013). However, school staff members' evaluation of consultation varies substantially, with class and subject teachers being less positive than special educators (Lindqvist et al., 2011).

During the last decade, a collaborative consultation model emphasising the importance of professional collaboration between the consulting special educator and the consultee has emerged alongside the traditional consultee-centred and expert driven models (Sundqvist et al., 2014; von Ahlefeldt Nisser, 2017). Collaborative consultation is a process-oriented approach based on shared responsibility for finding solutions for pedagogical challenges in the classroom (Friend & Cook, 2013). In this sense, the special educator and the class teacher(s) work collaboratively as a team in planning and providing support for students with special educational needs in inclusive learning environments (King-Sears et al., 2015). Furthermore, collaborative consultation relates to professional development. International research findings indicate that regular and meaningful support, professional collaboration, and supportive teacher relationships seem to promote resilience among teachers who work in rural schools (Castro et al., 2010; Malloy & Allen, 2007). Similarly, a Swedish study on consultation between special educators and teachers working in

rural schools showed that collaborative consultation contributes to teachers' professional development (Pettersson & Ström, 2019). Providing such consultation is challenging in many rural schools, due to the geographical and other constraints, but advances in distance-bridging technologies can offer promising modalities for such services.

Remote Educational and Special Educational Consultation

Remote consultation in school settings was first addressed in literature towards the end of the first decade of the new millennium, focusing primarily on the support school psychologists provided for special education teachers in functional behaviour assessment, analysis and intervention for students with behaviour-related challenges (Fischer et al., 2018). Early studies (e.g. Frieder et al., 2009) showed the potential of remote educational consultation for assessing and treating behaviour-related problems among students and paved the way for further studies, which provided evidence that remote educational consultation was a promising means for providing access to educational services in rural and remote areas (Butcher & Riggelman, 2018; Fischer et al., 2018). Substantial parts of the reported studies on remote educational consultation still address behaviour-related challenges (Fischer et al., 2018; Frederick et al., 2020). However, some studies have addressed other types of disabilities and mental health issues among children and youth, such as autism spectrum disorders (Hall, 2018; Saggars et al., 2021), visual impairments (Ihorn & Arora, 2018), and both depression and anxiety related problems (Margolis et al., 2018). Furthermore, early remote educational consultation-based interventions for young children with disabilities have also received some attention (Butcher & Riggelman, 2018).

Researchers have identified several benefits of remote educational consultation. Ihorn and Arora (2018) claim that it can increase the equality of opportunities while addressing the needs of underserved areas. Other benefits reported are cost-effectiveness as remote educational consultation reduces travel times (Bice-Urbach et al., 2018; Owens et al., 2021; Schultz et al., 2018) and an increase in both capacity building and self-efficacy of teachers working in rural schools (Saggars et al., 2021; Sussman et al., 2022). Furthermore, remote educational consultation promotes inclusion of students with disabilities by increasing professional development opportunities (Saggars et al., 2021). Although most studies seem to support the idea that remote educational consultation is an efficient and acceptable way of offering consultation services in underserved areas (von Hagen et al., 2021; Fischer et al., 2018; Schultz et al., 2018), there are concerns and limitations. Most reported concerns seem to relate to the reliability of communication technology, availability of support staff, and users' familiarity with the technology (Bice-Urbach et al., 2018; Rule et al., 2006). Legal, ethical and data security issues are also sources of concern (Butcher & Riggelman, 2018). The severity of the challenges addressed also seems to limit the usefulness of remote consultation (Schultz et al., 2018). Although research findings indicate benefits as well as concerns, Schultz et al. (2018) concluded that remote educational consultation is a promising tool for special needs education provision, provided teachers and consultants are sufficiently familiar with the technological solutions.

Although most of the studies in the field of remote educational consultation relate to special educational needs issues, very few reported studies have focused on special educators' involvement in providing RSEC. However, a few studies where special educators have a prominent role exist. One, by Knowles et al. (2017), investigated use of RSEC to address behaviour-related challenges in a self-contained classroom located in a rural area. The researchers studied how the use of a telehealth consultation model improved the overall climate in the classroom and reduced challenging student behaviour. The aim was to help the class teacher to conduct a behavioural intervention for the students, with the assistance of an experienced special educator specialised in behavioural consultation. The consultation model (10 weeks long) included an initial in-person visit to the site, biweekly observations of teaching sessions via videoconference, implementation of the intervention and biweekly consultation sessions via

Skype. Overall, the disruptive behaviour in the classroom decreased, and the findings indicate that the technology can facilitate service provision in rural areas, increase teacher opportunities to receive direct support for specific needs, and reduce specialists' travel time and costs.

Sussman et al. (2022) report findings from a study on multi-tiered systems providing support for schools' efforts to address learning and behaviour-related challenges via remote consultation. The aim was to examine how well the use of RSEC can promote teachers' self-efficacy in implementing individualised support for students with special educational needs. A consultation team of specialists with expertise in general education, special education and school psychology conducted consultation sessions to the schools. The consultation sessions, conducted via Zoom meeting software, focused mainly on learning difficulties in reading, writing and mathematics. The consultation team discussed specific cases with the participating teachers, asked clarifying questions and gave teaching recommendations. The findings revealed an overall increase in teacher self-efficacy after they attended the consultation sessions, with a positive relationship between number of sessions attended and self-reported self-efficacy.

Focusing on RSEC in a Swedish rural context, Pettersson and Ström (2019, 2020) studied how special educators carried out and implemented RSEC in efforts to support teachers working in rural schools and how teacher support in the form of RSEC promoted professional development of the teachers. The findings showed that the special educators who acted as consultants applied several strategies, such as familiarising themselves with technology, conducting initial in-person site visits and exploiting their special educational competence in the consultation sessions (Pettersson & Ström, 2020). The teachers initially selected the cases for consultation, ranging from behaviour issues to learning challenges. Major conclusions of the studies were that RSEC is a promising strategy for ensuring access to special needs education services for rural schools, promotes rural teachers' professional development, and strengthens professional collaboration between teachers and special educators (Pettersson & Ström, 2019).

The above reported studies have illuminated the potential of remote consultation in providing support for students with special educational needs and their teachers, but little is known about perceptions and experiences of teachers working in rural schools and special educators providing RSEC for them. Thus, the aim of the present study was to obtain such knowledge, by examining the RSEC offered by special educators to teachers working in a rural municipality and the associated experiences of both the teachers and special educators involved. The research question we address is as follows: How do special educators and class teachers perceive and experience RSEC?

Method

The Study Context

The present study is part of a larger municipality-initiated research and development project conducted in the period 2018-2020 in a rural municipality in northern Sweden (Pettersson & Ström, 2017, 2019, 2020). The aim of the project (involving a university, educational authorities and special educators in the municipality) was to develop RSEC in the municipality's four rural schools. The sparsely populated municipality is located in a rural inland part of Sweden. The number of students in the schools ranges from eight to 46 and the number of teachers from one to five. Due to the low numbers of students and teachers, the classes are composed of mixed-age student groups. None of the schools has special educators stationed at the school, but all of them have access to a special educator stationed in the municipality centre. The travelling time by car from the municipality centre to the schools varies from approximately 15 minutes to an hour.

Data Collection and Participants

Empirical data for the study were collected with an online questionnaire that teachers (N=11) and special educators (N=4) associated with the four participating schools were invited to complete in order to capture their perceptions and experiences of RSEC. The questionnaire consisted of 12 questions. Ten of the questions were free text questions relating to teachers' and special educators' perceptions and experiences of the ambitions, benefits, challenges, organisation, and contributions of RSEC. Two of the questions had fixed-response options, asking whether RSEC had increased cooperation between the two teacher categories and to what extent the teachers had utilised the content from RSEC in their teaching. In designing the questionnaire, we utilised findings from prior, mainly Swedish, research on RSEC (Pettersson & Ström, 2017, 2019, 2020). The online questionnaire was sent via e-mail to the 11 teachers working in the participating schools and four special educators attached to the schools at the end of the three-year project in mid-June 2020. After two reminders in the autumn, the questionnaire closed in October 2020. The reason for the long response time was that most teachers were on summer holiday from mid-June to the end of August. In total, seven teachers and four special educators answered the questionnaire. Four teachers did not provide responses, probably because three of them were on leave for various reasons and one had moved to another school when the autumn term started. Most of the participating teachers and special educators had had a long professional career, all but one having worked for 10 years or more, most of them in rural schools. All were women and all had a special educator certificate at advanced level.

Data Analysis

The findings presented here are based on thematic analysis (Braun & Clarke, 2006) of responses to the free text questions, with some support from responses to the fixed answer questions. Thematic analysis is a systematic and flexible method for identifying, analysing and reporting patterns (themes) within a dataset, thereby coherently aggregating the content and facilitating interpretation of relevant elements of the content to addressed topics. In the analysis, we followed the steps described by Braun and Clarke (2006). Prior to the analysis, we read the free text answers repeatedly to familiarise ourselves with the data. During this part of the process, we sorted content embedded in the data in relation to perceptions and experiences. This initial process gave us codes and eventually preliminary themes. The next step was to identify stable themes that reflected the meaning of data related to the research aim. This data-driven analytical process resulted in two overarching thematic structures, *Challenges* and *Opportunities*, each encompassing three inductively derived themes.

Findings

As described above, the thematic analysis resulted in six themes describing the participants' perceptions and experiences of RSEC, three related to each of the two overarching themes: challenges and opportunities. Findings regarding these themes are reported in more detail in the following text, with illustrative quotations from responses of numerically anonymised participants.

Experienced Challenges

The three themes reflecting challenges were lack of professional commitment and consensus, lack of school leaders' trust, knowledge and support and barriers associated with distance and technology. Each of these themes will be described in detail.

Lack of Professional Commitment and Consensus. Some teachers had low expectations regarding RSEC, and thus expressed lack of commitment to new ways of conducting consultation. *"I have no ambition for remote consultation. I think you should work more towards promoting the physical presence of special educators in our rural schools"* (Teacher 2). Other critical comments

related to the insecure situation of the rural school, “I think the rural schools might end up even more peripheral when the special educators no longer visit us” (Teacher 3).

The findings further reveal differences in opinions among teachers and special educators regarding special needs education, support provision and consultation, as illustrated by the following statement by a special educator: “We have not developed a consensus about consultation, and it clearly shows when we special educators assess what kind of support the teacher needs.” Another aspect related to the lack of consensus concerning the function of consultation, particularly a desire expressed by some of the teachers for more hands-on advice for meeting various learning needs of students. “I have only got concrete suggestions from the special educator a few times” (Teacher 6). The following critical comment from one of the teachers reveals not only lack of consensus but also a perceived lack of legitimacy for RSEC. “In my experience remote consultation has not been successful” (Teacher 2).

However, some teachers who expressed negative feelings towards RSEC changed their opinion when they became familiar with the new consultation model, as illustrated by the following quotation:

In the beginning, the remote consultation felt very artificial because I did not think there was a particular need. However, during this school year the support has been very valuable. The “forced” consultation has given me additional value. I had learnt that using a computer as a communicative aid was not too strange during the COVID-19 pandemic, when we conducted all meetings remotely. We were already used to it (Teacher 5).

Lack of School Leaders’ Trust, Knowledge, and Support. During the implementation of RSEC, the municipality school leader changed. The new school leader was not familiar with RSEC nor committed to continuing the project. This radically changed the conditions and caused frustration among both teachers and special educators. The school leader employed a new special education teacher and assigned her to teach students with special education needs in a segregated setting. Consequently, the whole idea of RSEC was undermined as the students were removed from the regular classroom. Another decision of the new school leader was to assign a counsellor to visit the rural schools regularly and offer consultation. The following statement from one of the special educators (Special educator 4) illustrates the frustration caused by the school leader’s actions.

One special education teacher was employed to teach students in a resource room and the counsellor conducted school visits on a regular basis with the aim of giving some consultation to the teachers. The counsellor took over part of our ongoing collaboration with the teachers, a collaboration we were developing and improving.

The participating teachers expressed opinions that the lack of trust, knowledge and support from the school leader created obstacles, and even undermined the development in RSEC that had started. “If we had a school leader who really believed in the development work and could support and help us, remote consultation would function very well” (Teacher 6). One of the special educators expressed similar views, as follows.

The school leader’s decision temporarily overturned the whole idea of the development project. It is important that newly appointed school leaders understand the importance of development work, in this case regarding remote consultation. It is equally important for the leader to keep to earlier decisions, instead of making changes that undermine the importance of consultation.

Barriers Associated with Distance and Technology. Some of the participants expressed unfamiliarity with consulting at a distance, at least in the beginning. Most of the teachers were used to a system involving special educators conducting in-person consultation sessions during school visits. The introduction of RSEC challenged this. Initially, most teachers felt uncomfortable

participating in consultation via computer. Furthermore, the digital meeting platform did not function properly at first. This caused frustration among the teachers. *“It was problematic when the meeting platform did not work as we wanted. Discussing things by phone is not as good as having an application with sound and picture”* (Teacher 5).

After the initial challenges, most of the teachers became accustomed to consultation sessions at distance and seemed to accept the remote provision of regular consultation. *“For me, it was strange to meet via a digital device, it was something I had to get used to and eventually understand the benefits of remote special educational consultation”* (Teacher 7). A few of the teachers remained sceptical. *“Sitting and looking at the person I am discussing things with on a screen still feels constrained”* (Teacher 1).

Experienced Opportunities

The three themes reflecting opportunities were increased access to special educational competence, increased structure in consultation and increased professional development and collaboration. Each of the themes will be described in detail.

Increased Access to Special Educational Competence. Most of the teachers expressed a belief that remote consultation increased access to special educational competence, thereby promoting educational quality and students’ learning. When the teachers evaluated RSEC, they referred to their own teaching. *“It [RSEC] has given me more possibilities to give students with special education needs as good instruction as possible”* (Teacher 7). Some teachers reportedly felt that they had more support from the special educator, which had positive impacts on the learning environment, including the overall situation in the classroom, and enhanced their ability to handle challenges. *“Our special educator supports me and takes active responsibility for meetings with guardians and helps me with challenging documents”* (Teacher 1).

Increased Structure in Consultation. During implementation of the RSEC project, the teachers introduced scheduled consultation times, which replaced the earlier system of irregular physical consultation sessions. The teachers could decide how often they wanted consultation, which gave them a sense of control, and in many cases increased their use of consultation. *“Receiving consultation weekly feels too often for me, my aim is to use it every other week and in periods, and weekly if needed. This means that I utilise consultation on a more regular basis than before”* (Teacher 4).

The scheduled consultation times gave the consultation necessary structure. The teachers and special educators had decided together that the teachers should inform the special educators about the topics they wanted to discuss in advance, and that both parties should prepare themselves before each session. *“It is really important for us teachers to prepare ourselves and utilise the scheduled times”* (Teacher 6). The scheduled and structured consultation increased predictability. *“I know that I will receive consultation, and when”* (Teacher 1). Most teachers appreciated the scheduled sessions. *“It is very helpful to know when we can get consultation, and there is always a need”* (Teacher 5).

The structured RSEC also included initial special educator visits to the rural schools. The special educators spent two days in the schools to observe and document individual students, teachers’ teaching and the learning environment, then discuss findings with the teachers. Both the teachers and special educators appreciated the procedures during the visits. *“It is important for the special educator to have good knowledge of the rural schools’ conditions, learning environments and students”* (Teacher 6). A statement from one of the special educators supports the teacher’s view. *“It should be easy for the teacher and me to discuss the teachers’ support needs in relation to the students, and in this context my knowledge of the learning environment is essential.”*

Increased Professional Development and Collaboration. The consultation sessions seemed to promote the teachers’ professional development. The teachers reported that the

consultation was useful for planning, implementing, and evaluating support for students with special education needs. Illustrative comments supporting this assertion were made by two of the teachers. *“I have used the consultation content when planning, conducting and evaluating my lessons”* (Teacher 3) and *“I have used the advice and support I have got regarding social difficulties among students, in discussions, interventions and adaptations of the learning environment”* (Teacher 4).

The special educators expressed clear goals. *“To get all teachers to utilise the knowledge they obtain through remote consultation is important in order to develop instruction and special needs education”* (Special educator 3). The special educators also indicated that the RSEC project had increased collaboration and changed their way of conducting consultation. Collaborative consultation seemed more common than before. *“I engage to a greater extent than before in a kind of collaborative consultation, I do not only provide ready solutions to accept or reject. It works because we share the same knowledge of the learning environment”* (Special educator 2). The collaboration also changed the teachers’ and special educators’ ways of talking about and perceiving consultation. Consultation had become a ‘discussion’ or ‘dialogue’ between two professionals, rather than a session in which a consultant offered advice to a consultee. The focus of consultation shifted from the students’ special educational needs to the teachers’ professional competence. *“The consultation I have received has strongly contributed to my work functioning better than before”* (Teacher 7). Furthermore, the collaborative approach within RSEC seemed to have enhanced the teachers’ ability to reflect. *“The collaboration in remote consultation has contributed to a more reflective and analytical way of working”* (Teacher 4).

The greater collaboration had promoted consensus among the participating teachers and created a sense of capacity and working towards the same goal, i.e., improvement of the teaching and learning for all students. However, this required a shared knowledge and understanding of RSEC and the possibilities it can offer throughout the whole school community. *“Consensus and clarity throughout the whole organisation are important”* (Special educator 2).

Discussion

Findings of our investigation of teachers’ and special educators’ perceptions and experiences of RSEC in schools in a rural municipality in Sweden reveal several challenges as well as opportunities. Some of the challenges relate to the implementation of digital solutions, which replaced the previous in-person consultation. Remote provision of the service necessitated a completely new way of carrying out consultation. This involved use of a digital platform, which did not function satisfactorily initially, causing uncertainty and frustration among the participants. This confirms previous findings highlighting the importance of educating and preparing those who are supposed to implement new technology (Bice-Urbach et al., 2018; Pettersson & Ström, 2020; Rule et al., 2006). Technical support is also crucial. However, in line with Schultz et al. (2018) the results indicate that the technological barriers decrease when the users become familiar with the distance-bridging technology.

The initial challenges were also visible in the teachers’ professional commitment and consensus. Some of the teachers reported negative experiences and did not see the benefits of RSEC. Our interpretation is that the teachers’ previous negative experiences of consultation affected their views of RSEC. The previous system with in-person consultation had often been irregular, unplanned, unstructured, and mostly involved ‘quick-fix’ and unreflecting measures, which hindered collaboration and development of consensual views on how best to support students with special education needs (Pettersson & Ström, 2019). The new school leader’s attempts to discourage implementation of RSEC further increased the difficulties in implementing a new system. These results indicate that implementation of new ways of working require thorough preparation, broad acceptance, and support from school leaders. Sensitivity to the teachers’

experiences and needs is also essential, so the design and scope of RSEC helps them to support individual students and develop an inclusive learning environment.

The experienced opportunities relate to benefits for the teachers of improvements in access to special educational competence, structure, capacity, and collaboration. The original goal of the RSEC project was to promote rural teachers' opportunities to get special educational support in a more structured way. In terms of increasing access to the special educators' expertise, RSEC seemed to be successful corroborating earlier findings regarding the potential utility of remote educational consultation (Butcher & Riggelman, 2018; Fischer et al., 2018; von Hagen et al., 2021). A factor that contributed to its success was that the collaboratively planned and scheduled consultation sessions seemed to overcome some flaws of the previous system with occasional in-person consultation. Another was that initial visits to the rural schools complemented the scheduled and structured consultation sessions. These results indicate that a well-planned combination of RSEC and in-person consultation is important for good results. Previous research on RSEC supports this claim (Knowles et al., 2017; Pettersson & Ström, 2020).

Most participating teachers seemed to appreciate RSEC for enhancing their professional development, collaboration between the teachers and special educators, and consensus regarding consultation strategies and support for students with special education needs. The possibility to engage in consultation on a regular basis gave them a sense of mastery regarding their own teaching and their students' learning. Earlier studies (Pettersson & Ström, 2019; Saggars et al., 2021; Sussman et al., 2022) have also indicated that remote educational consultation sessions can increase teachers' self-efficacy. Furthermore, Sussman et al. (2022) found a positive relationship between the number of sessions attended and self-efficacy, corroborating the importance of regular RSEC sessions for teachers' self-efficacy and professional development.

An interesting finding was that RSEC seemed to increase both the degree and quality of collaboration between the teachers and special educators. The teachers and special educators developed a kind of collaborative consultation, characterised by equal relationships and acknowledgement of each other's professional expertise (cf. Sundqvist et al., 2014). Regular consultation sessions and shared ambitions seem to foster collaborative consultation, which is likely to improve the quality of special needs education in rural schools (Pettersson & Ström, 2017). However, mutual understanding of the purpose of RSEC and greater collaboration is not enough to develop special needs education in rural schools. The results highlight the importance of consensus, not only between teachers and special educators, but also throughout the whole school organisation. Without committed support from the leadership, it is probably more challenging to develop inclusive forms of special needs education in rural and other underserved areas (cf. Hoppey & McLeskey, 2013).

Conclusion

Results of this study indicate that teachers and special educators working in rural schools perceive RSEC as an acceptable, cost-effective, and efficient way of increasing access to special educational expertise and special educational support provision support in rural and underserved schools. Furthermore, the collaborative nature of remote special educational consultation seems to foster professional collaboration. However, there are several requirements that need to be considered, including mutual understanding and decision-making, leadership support, thorough preparation, planning and removal of technological challenges regarding software. To conclude, RSEC has a potential value, but it is naïve to think that remote consultation can replace in-person consultation completely. This study complements earlier research on remote special educational consultation, but more research is needed before we can establish pros and cons of remote special educational consultation.

Limitations

The study presented here has several limitations. The sample was small, consisting of teachers and special educators of schools in a single Swedish rural municipality. Although Swedish rural schools share many contextual characteristics, it is not possible to generalise results, even across Sweden. Rural municipalities' organisation of special educational consultation varies. Furthermore, the study reports findings from a certain remote special educational consultation project, initiated by the focal municipality and special educators, who favoured the initiative, and the on-line questionnaire used to collect data does not provide in-depth data. However, despite these constraints, the results provide some potentially illuminating insights into teachers' and special educators' perceptions and experiences of consultation support at a distance as well as for the need for continuity and a sustainable approach.

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