

Competencies and Roles of Conductors in Rehabilitation Teams: A Pilot Study of Parental and Professional Perspectives

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This paper presents the results of the first, qualitative phase of a mixed-methods study. Using semi-structured interviews, it explored the experiences of actors involved in rehabilitation with a view to creating an appropriate measurement tool. The preliminary study aimed to explore the participating parents' perceptions of professionals and their expectations towards them, as well as the conductors' views on their own roles, responsibilities, and competencies. The sample included four conductors and four parents. Parents emphasized professionals' soft skills, while the professionals focused on the roles, tasks, and competencies within their teams. The findings may indirectly support the further development of conductor training programmes.

Kulcsszavak: conductors (conductive education), parents' expectations in rehabilitation, rehabilitation team, professional roles and competencies, partnership with parents

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Introduction

According to the 2011 Hungarian census, approximately 490,578 individuals—4.9% of the population—live with a disability (Hungarian Central Statistical Office [Központi Statisztikai Hivatal], 2023). These individuals may access developmental or therapeutic services through institutions operating in the public education, healthcare, and social care sectors. Conductors, active in all three sectors, are the focus of this study.

Depending on the nature of each sector, conductors face distinct conditions, expectations, and challenges. What expectations and competencies do institutions, professionals, and parents demand of conductors across sectors? How do conductors perceive their roles within interdisciplinary teams? While previous studies have explored the roles of conductors, they have typically focused on pub-

lic education. No comprehensive analysis has yet addressed these roles across all three sectors. Addressing these questions requires a new line of inquiry, grounded in the use of appropriate measurement tools.

This paper presents findings from the first, qualitative phase of a broader three-phase mixed-methods research project. This initial phase focuses on the experiences of stakeholders in rehabilitation—specifically, conductors’ applied competencies, tasks, and roles within teams, and parents’ expectations toward professionals—with the aim of informing the design and refinement of research instruments for subsequent phases.

The findings may also contribute to renewing professional training by identifying key content areas that support effective collaboration between professionals and parents. Parts of this preliminary study were presented as an oral presentation at the 2023 ATEE Annual Conference – Teacher Education on the Move.

Theoretical framework and background

Conductive Education

Conductive education is a specialized pedagogical approach in rehabilitation, supporting the development, education, and social inclusion of individuals with complex neurological symptoms.

Neurological injuries and disorders can lead to highly varied combinations of symptoms, often affecting both learning and functioning. The conductor is a professional who supports the education, teaching, and development of individuals with such complex neurological symptom profiles through a broad repertoire of pedagogical activities. (Zsebe & Feketéné Szabó, 2019) Conductive education supports the development, education, and care of individuals with complex symptoms caused by neurological injury or disease. As learning itself may be impaired, conductors apply a learning-centered pedagogical system that promotes the integrated development of physical, cognitive, emotional, and social domains in a structured and goal-oriented way. Their work extends beyond motor development, reflecting a holistic educational approach.

Conductor training includes three specializations—Nursery, Primary, and Pedagogical Rehabilitation—the latter emphasizing interdisciplinary collaboration in healthcare and social settings (Simmelweis University, Pető András Faculty [Simmelweis Egyetem, Pető András Kar], n.d.).

As members of multiprofessional rehabilitation teams, conductors operate across medical, educational, and social settings, aligning their professional practice with the specific goals and contextual demands of each sector.

Fields of rehabilitation

In this study, rehabilitation refers to coordinated services supporting individuals with disabilities, including medical, psychological, educational, vocational, and social components that promote development and participation. The following brief overview outlines three key sectors—education, social services, and health-care—as core areas of childhood rehabilitation in Hungary.

In the educational sector, beyond special and conductive education institutions and pedagogical professional services, conductors may be employed in nearly all types of institutions—from kindergartens to (Act CXC of 2011 on National Public Education [2011. évi CXC. törvény a nemzeti köznevelésről]) In mainstream settings, they may lead special or integrated groups or provide individual developmental support, including itinerant conductive education services. In specialized institutions (i.e., special schools), they work with children who have severe and multiple special educational needs. Within pedagogical services, their tasks may involve expert assessments, counseling, early intervention, and conductive education provision.

In the social sector, services are divided into basic and specialized forms. The former promote social inclusion, while the latter provide more intensive care, such as day or residential services for people with disabilities or mental health needs (Act III of 1993 on Social Administration and Social Welfare Services [1993. évi III. törvény a szociális igazgatásról és szociális ellátásokról]). Conductors may work in day care or residential institutions, supporting individuals with disabilities across diverse settings.

In the healthcare sector, rehabilitation is provided through inpatient and outpatient services and delivered by multiprofessional teams that may include physicians, nurses, physiotherapists, psychologists, orthopedic technicians, conductors, and the individuals and families concerned (Vekerdy-Nagy, 2019). Depending on the nature of collaboration, three models of teamwork can be distinguished: multidisciplinary, where members work independently (Norrefalk, 2003); interdisciplinary, marked by coordinated decision-making (Körner, 2010); and transdisciplin-

ary, which extends collaboration through shared assessments and mutual support (King et al., 2009; Lyon & Lyon, 1980; Woodruff & McGonigel, 1988).

Conductors in these institutions are typically members of multiprofessional teams and must adapt their practice to the expectations of various environments. Their roles are thus highly diverse, requiring both professional and personal preparedness.

Skills and Soft Skills in Rehabilitation Teams

The effectiveness of rehabilitation teams depends on the preparedness and collaboration of their members. Two major categories of skills—hard skills and soft skills—shape both individual and collective performance.

Hard skills are job-specific competencies directly tied to professional performance. Soft skills refer to personal traits that influence interpersonal behavior, enabling cooperation, adaptability, and empathy in daily practice.

Due to the diversity of roles in rehabilitation teams—e.g., between doctors and speech therapists—hard skills vary widely across disciplines, while soft skills are considered equally essential across all team roles. Recent studies highlight the growing relevance of soft skills in multi-professional rehabilitation settings (Continisio et al., 2021; Dibbelt et al., 2009; Franz et al., 2018; Moudatsou et al., 2020; Posa et al., 2022).

Although soft skills are relevant across all three team models—multidisciplinary, interdisciplinary, and transdisciplinary—their importance increases with the complexity of collaboration, peaking in transdisciplinary settings where shared goals and overlapping roles require strong communication, empathy, cooperation, and flexibility.

Soft skills such as empathy, communication, emotional intelligence, collaboration, and self-reflection enable professionals to build trust and maintain constructive relationships with both colleagues and parents. These interpersonal skills are therefore considered essential for ensuring the effectiveness, ethical integrity, and people-centered nature of rehabilitation and educational practice.

Methodological background

Research design

The study is grounded in a mixed methods paradigm (Creswell, 2012), following a three-phase sequential model (Kuckartz, 2012; Sántha, 2015): a qualitative first

phase, a quantitative second, and a qualitative third. This initial, exploratory phase focuses on the perceptions of conductors working in Hungary regarding their competencies, roles, and collaboration across sectors, as well as parental expectations toward them. The goal is to inform the development of research instruments for the next phases.

Research questions

This initial qualitative phase explored parental expectations regarding conductors involved in childhood rehabilitation, along with conductors' perceptions of their own competencies and roles.

It was guided by the following research questions:

1. What expectations do parents or guardians of children with disabilities express toward conductors?
2. Which competencies and professional qualities do conductors consider most relevant across rehabilitation contexts?
3. How do conductors interpret their roles within multi-professional rehabilitation teams?

These questions informed the design of the semi-structured interviews.

Data collection and analysis

Semi-structured interviews were used as the primary data collection method, allowing for both demographic data collection and in-depth exploration of participants' subjective experiences.

Interviews were conducted between February and May 2023 via online platforms (Zoom, Google Meet). Transcripts were analyzed using thematic content analysis (Braun & Clarke, 2006). Verbatim transcription and coding were supported by MAXQDA2022 software. A combined deductive–inductive approach was applied: demographic and structural categories were predefined, while most main and sub-codes emerged inductively from the data. Memos were used to enhance the clarity and transparency of the coding framework.

To minimize researcher bias, reflective practice was applied, considering prior professional experiences and consciously monitoring assumptions. As the data were coded by a single researcher, reliability was enhanced through an intra-coder reliability check: one week after the initial coding, the data were re-coded using the same system. The reliability index (k_m) was calculated using the formula developed by Dafinou and Lungu (as cited in Sántha, 2015):

$$k_m = \frac{n * 2}{i + j}$$

where

n = number of situations where the coding is identical

i = number of codes from the first coding

j = number of codes from the second coding.

In this study, the reliability index was $k_m = \frac{180 * 2}{184 + 199} k_m = 0.94$.

One interview (with a special needs educator) was excluded due to insufficient group representation, but this did not affect the reliability index, which was calculated based on the original dataset.

Although the reliability index ($k_m = 0.94$) indicates high consistency, this likely reflects the limited sample size, the structured nature of the data, and the use of clear coding categories. The one-week interval and memos also helped reduce recall bias.

Sample and sampling

The sample included conductors in Hungary and parents or guardians of children receiving rehabilitation services. Purposive and convenience sampling were applied. Professionals were reached via online professional networks, and parents through open parenting forums. Participation was voluntary, based on an online form describing the study's purpose.

Although the original research plan intended to involve both conductors and special needs educators, only conductors participated in sufficient numbers for inclusion in the final analysis. Nonetheless, the inclusion criteria reflected the broader professional scope initially envisioned

Inclusion criteria:

- Professionals: certified conductors (any specialization) and/or special needs educators (any specialization), who had been engaged in rehabilitation activities within the past five years in Hungarian public education, healthcare, or social institutions.

- Parents/guardians: adults over 18 years of age, raising or caring for a child with disabilities or developmental challenges, living with the child and/or maintaining daily contact, and receiving rehabilitation services in Hungary involving interaction with special needs educators and/or conductors.

Exclusion criterion: insufficient digital literacy, lack of appropriate equipment, or an unstable internet connection that would prevent participation in an online interview.

Eight individuals participated: four conductors and four parents.

Although special needs educators were excluded from the final analysis due to low participation, parental references to them were retained to preserve contextual integrity and inform later research phases, which are expected to involve this group.

Given the small, relatively homogeneous sample, the scope of interpretation is limited. While a larger group might offer further insight, the exploratory findings remain suitable for informing the refinement of instruments used in later phases.

Ethical considerations

The study was approved by the Research Ethics Committee of Eszterházy Károly Catholic University. Participants provided online informed consent after being briefed on the study's purpose. Audio recordings were stored on password-protected, encrypted devices, and anonymity was ensured via pseudonyms.

Results

Interviews Conducted with Parents

Results Interviews Conducted with Parents The parental interviews focused on past experiences with professionals and expectations toward them.

All parents had children who received rehabilitation in both public education and healthcare institutions, and had interacted with conductors and special needs educators across various specializations: intellectual disability, visual and hearing impairment, speech and language therapy, and physical disability. Interviews revealed that parents were often unsure of professionals' qualifications, and commonly confused conductors, physiotherapists, and special needs educators in physical disability. Speech and language therapists were a notable exception. Interview data were analyzed using five main codes: professionals' knowledge, tasks, capabilities and skills, attitudes, and professional autonomy and responsibility. General and, when relevant, profession-specific features were coded separately within each category.

Most parents used the term "needs" rather than "expectations," and generally described their collaboration with professionals in a positive light. The most

prominent themes in the interviews were linked to three main codes: the professionals' knowledge, skills, competencies, and attitudes. In terms of knowledge, parents considered confident professional expertise a fundamental requirement. This included not only high-level individual preparedness, but also relevant and up-to-date knowledge related specifically to the child's condition, along with the appropriate professional qualification. Within the category of skills and competencies, parents placed less emphasis on specialized technical skills and focused more on abilities belonging to the domain of soft skills. These included the ability to collaborate with parents—particularly joint decision-making, partnership-based interaction, and effective communication with parents—as well as effective communication with the child. Emotional intelligence and flexibility in communication with both the parent and the child were also considered highly important. Regarding the professionals' attitudes, parents highlighted the following characteristics: treating parents with respect, cooperating with professionals from other fields, respecting parents' opinions, respecting children, showing a commitment to ongoing professional development, and demonstrating empathy. The professionals' specific tasks were mentioned less frequently. Most parents felt that professionals worked toward a common goal, often using similar approaches or methods. The perceived differences lay primarily in the varying importance of these tasks during different sessions. Some specific responsibilities mentioned included assigning appropriate tasks for home practice, providing information to parents, and engaging in parent education—all of which were closely aligned with the expectations described under the skills and competencies code.

Interviews Conducted with Conductors

The participating conductors represented a range of institutional contexts, including public education, healthcare, and social services. Most were employed in state-funded or publicly maintained institutions, typically working with children and young people with motor disabilities or complex developmental needs. Their professional experience extended across various roles — from itinerant and institutional practice to, in one case, a leadership position within a conductive education institution. This diversity of professional settings and responsibilities allowed for a multifaceted exploration of the conductors' perceptions regarding their roles, responsibilities, and competencies.

The professionals were asked about their roles, responsibilities, and competencies, as well as their perceptions of their profession. The main codes identified in the interviews with conductors were the following: the relationship between the conductor and the parents; the relationship between the conductor and the professional team; the tasks of the conductor; the attitude of the conductor; the skills and competencies of the conductor; and the knowledge of the conductor.

The conductors shared experiences from both national and international contexts, reflecting the fact that the majority of professionals in this field possess some degree of international experience, which may be regarded as a characteristic feature of the profession. Incorporating insights derived from foreign practices into the research instruments to be employed in the subsequent phases of this project is particularly important, as certain phenomena identified abroad may also be present within the Hungarian rehabilitation context. In this way, the instruments will be capable of capturing elements that are not yet widely established domestically but may nonetheless be potentially present and relevant in local professional practice.

In their relationships with parents, positive feedback was dominant, particularly from those parents who attributed high prestige to conductive education. As for their relationships with team members, the conductors reported a mix of positive and negative experiences. A sense of professional isolation emerged in several cases, particularly in the fields of public education and social services. Unlike parental perspectives, professionals from other disciplines sometimes expressed a lower level of regard for conductive education and its representatives. Regardless of sector, there were instances where conductors were perceived as having lower professional prestige. In every type of professional team, some conductors encountered signs of rivalry—typically not with the entire team, but with individual members. On the other hand, many also reported receiving professional support, recognition, high levels of collaboration, and a genuine sense of partnership. In some cases, conductors were even regarded as professional leaders by representatives of other disciplines. In terms of team expectations, within the public education sector, conductors were often expected to provide developmental support outside of regular class time. More generally, across all sectors, the expectation was that conductors would focus on motor development within the team.

Regarding their attitudes, conductors most frequently emphasized a commitment to ongoing professional development and an openness to the achievements

of related professions. Although less prominently mentioned, they also considered willingness to cooperate with partner institutions, openness to applying new methods and technologies, and maintaining communication with professionals from other fields as important aspects.

As for competencies, a strong need for cooperation was highlighted. The interviews most often referred to the ability to work effectively with both other professionals and parents. In the case of professional collaboration, this included sharing competencies, knowledge, and responsibilities, synchronizing tasks, and having the capacity for professional consultation. In relation to parents, the key abilities mentioned were appropriate communication and the capacity to establish a partnership-based relationship.

In terms of knowledge, conductors emphasized the importance of understanding the competencies of other disciplines. The most frequently mentioned responsibilities included prevention, motor development, teaching self-care skills, and implementing feeding therapy. Other commonly cited tasks included: screening; developing individualized education plans; creating daily schedules; improving social skills and fine motor skills; recommending medical aids; providing training in the use of augmentative and alternative communication (AAC) tools for the individuals receiving care; improving speech skills; assigning appropriate homework; supporting autonomic functions; facilitating positive movement experiences; tailoring tasks to individual needs; positioning; conducting online sessions; and performing tracheal suctioning.

Summary

The results can be interpreted from three perspectives: the expectations and perceptions of parents regarding the professionals, the professionals' self-reflection, and the relationship between these two viewpoints. In the parents' responses, the importance of communication and partnership emerged as central themes, whereas concrete professional interventions were mentioned less frequently. There was often ambiguity concerning the distinction between professional roles, indicating a need for increased transparency and educational communication on the part of specialists. Professionals also reported challenges in cooperation—both with parents and with colleagues from other disciplines—while consistently emphasizing the importance of establishing partnership-based relationships. Their roles within rehabilitation teams appeared to be context-dependent. Elements of

transdisciplinary practice, such as the sharing and transfer of professional competencies, were evident among conductors. Conductors also expressed a strong commitment to ongoing professional development.

A shared emphasis on partnership emerged as a key point of convergence between parents and professionals. However, while both groups address interpersonal aspects, professionals also tend to focus more strongly on systemic and structural challenges. This duality suggests that future research should address both relational and organizational factors.

In interpreting these results, it is important to acknowledge the scope and limitations of the present study. The purpose of this exploratory phase was to complement the existing foundations for the development of measurement tools, rather than to generate findings generalizable to the broader population of conductors or parents. The sampling resulted in a small and relatively homogeneous group, which was appropriate for the aims of this phase; nevertheless, a larger and more diverse sample would have provided an opportunity to capture a wider range of perspectives. In this respect, the perspectives of conductors and parents enrich the primary bases of measurement tool development provided by the Training and Output Requirements and the relevant national and international literature.

In light of both the findings and the limitations discussed above, the study outlines four key directions for the development of a measurement instrument to be applied in the subsequent, quantitative phase:

- a more nuanced examination of soft skills, particularly in relation to partnership-building;
- sector-specific analysis of professional roles and perceived prestige within interdisciplinary teams;
- identification of training and self-development needs among professionals;
- mapping the characteristics and dynamics of transdisciplinary teamwork.

Taken together, these insights may contribute to the design of a comprehensive tool for assessing professional roles and expectations, and ultimately support the improvement of both initial and in-service training programs for conductors.

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A konduktorok kompetenciái és szerepei a rehabilitációs teamekben – pilot tanulmány a szülők és szakemberek nézőpontjának tükrében

A tanulmány egy kevert módszertanú kombinált paradigmájú kutatás első, kvalitatív szakaszának eredményeit mutatja be, mely félig strukturált interjúk révén tárta fel a rehabilitáció szereplőinek tapasztalatait, megalapozva a későbbi mérőeszköz-fejlesztést. Az előtanulmány a bevont szülők szakemberekről alkotott nézeteinek és a velük szembeni elvárásainak, valamint a konduktorok saját szerepükről, felelősségükről és kompetenciáikról alkotott nézeteinek feltárását célozta. A mintát négy konduktor és négy szülő alkotta. Az interjúkban a szülők a szakemberek soft skilljeit emelték ki, míg a szakemberek a teamen belüli szerepeket, kompetenciákat és feladatokat hangsúlyozták. A kutatássorozat eredményei közvetetten hozzájárulhatnak a konduktorképzés fejlesztéséhez.

Kulcsszavak: konduktorok (konduktív pedagógia), szülői elvárások a rehabilitációban, rehabilitációs team, szakmai szerepek és kompetenciák, szülőkkel való partnerség