



# Training needs of Portuguese practitioners working with children and young people with complex and intense support needs

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## Abstract

Upon the publication in Portugal of Decree-Law No. 3/2008, inclusive education for all children in regular schools became compulsory. In a short period of time, the educational community (special education teachers, regular education teachers, administrators, and technicians) were required to include and teach all students in regular schools. This article characterizes Portuguese teachers' perceptions (TPs;  $N = 105$ ) about the training needs of practitioners working with children and young people with complex and intense support needs (CISNs). In this work, we use data collected using the questionnaire for practitioners working with children and young people with CISN—TPs, which was drawn up under the auspices of project ENABLIN+. The results of content analysis showed that the most frequently mentioned themes were special education, intervention strategies, international classification of functioning, disability and health, educational legislation, and family support/intervention. In conclusion, training should focus on specific contents, should be for everyone (practitioners and nonpractitioners), and should aim to improve practices, while being sufficiently flexible and differentiated to meaningfully inform each professional.

## Keywords

Portuguese teachers' perceptions, complex needs, education, training needs, inclusion, ENABLIN+

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## Introduction

Children and young adults with complex and intense support needs (CISNs), also known as “profound intellectual disability” or “multiple disabilities” (Nakken and Vlaskamp, 2007), do indeed have multiple needs. It can be challenging to include them in regular schools: they need a lot of care and attention; teachers are usually ill prepared to receive them; and parents may also have many needs. According to the 2006 Convention of the United Nations on the Rights of Persons with Disabilities, countries that ratified this convention now have the duty to promote the inclusion of disabled children in regular schools and to foster their social and educational inclusion (The United Nations, 2006). This is not straightforward, especially for youngsters who have severe and multiple difficulties in daily activities regarding self-care, learning, communication, mobility, and participating in education or other activities. Barriers to the inclusion of children with disabilities may be theoretical (stereotypes, prejudices, and values) (e.g. Fuentes, 2015; Oliveira et al., 2015) or organizational (practitioners using different approaches to evaluating and working with children, e.g. Simeonsson et al., 2010). In Portugal, policies and practices have changed over the last 10 years. In 2006, the Portuguese Government adopted the First Action Plan for the Inclusion of Persons with Disabilities or Disability for the years 2006–2009. Even then, there was discussion about the adoption of the biopsychosocial model of assessment and intervention based on the International Classification of Functioning, Disability and Health (ICF) (World Health Organization (WHO), 2001). It was progressively adopted to more fairly assess people’s functional status and evaluate their capabilities in Special Education Procedures at Regular Schools (Resolution of the Council of the Ministries’ 120/2006).

In a short period of time, the educational community (special and regular education teachers, administrators, and other practitioners) were required to implement an extensive document from the WHO in Education—ICF (WHO, 2001). With the publication of Decree-Law No. 3/2008, inclusive education for all children in regular schools became compulsory. Since then, various information and training campaigns have taken place across the country, which are intended to enlighten and empower the educational community about inclusive teaching of all students in regular schools. The Ministry of Education began sending experts to provide information sessions and direct follow-up in schools. At a national level, with the collaboration of universities and polytechnic institutes, it implemented a special education training course targeting special education teachers (Candeias et al., 2013).

This course was not sufficient to meet teachers’ needs and to provide them with the necessary skills to put into practice this newly mandated model of reference, assessment, and intervention. A study by Saragoça (2012) showed that most of the teachers who received training on the ICF model ( $N = 913$ ) did so by way of in-service training or by institutions of higher education or teacher training centers. Most of the participants in that study claim to have carried out self-training to prepare themselves to work with the ICF. In this training, practical cases/case studies were presented and group work was carried out (Saragoça, 2012).

Several studies (e.g. Candeias et al., 2009, 2010, 2013) have identified that there are still some difficulties. These issues include both the way students are evaluated by the ICF as well as how the experts apply the assessment in the preparation of learners’ Individual Educational Programs and initiatives for children/youth. Despite teachers having received an average of 25-h training (minimum = 5 h; maximum = 46 h) in the ICF, 65% identified the need for even more (Saragoça, 2012). It was concluded that, for effective and efficient implementation of the ICF (WHO, 2001), an expansion of teacher training was needed, particularly in relation to assessing the performance

of students with special educational needs, teamwork, and time management. This is due to the fact that working within a biopsychosocial model scenario requires new skill sets for teachers and other practitioners. One of the goals of Decree-Law No. 3/2008 was to implement educational measures that might promote the biopsychosocial potential of each child. In this way, the ICF takes a holistic view of the person as it analyzes the components of functioning, disability, and environmental factors, as well as the interactions between them. Students' individual educational programs set out those functional indicators, as well as any environmental factors that act as facilitators or barriers to student activity and participation in school life, thereby enabling it to present a concrete profile of functionality (Decree-Law No. 3/2008). The new law requires an ecological assessment of the child, so it also emphasizes the importance of teamwork, which is also fundamental to the ICF.

However, dedicated practitioners who support or teach children with complex needs do not necessarily have the means or the inspiration to assist these children in mainstream schools or other inclusive settings (e.g. Simeonsson et al., 2010). Staff and children in mainstream schools are neither accustomed nor prepared to accommodate these children. Deinstitutionalization needs to be accompanied by training for all involved and on all levels. People who work with children and youth with intensive care needs receive insufficient preparation during their basic training (e.g. Fuentes, 2015; Oliveira et al., 2015). This happens at all levels: in vocational training, at university, and colleges. Moreover, once at work, other training needs arise (e.g. Saragoça, 2012). There is the need, for example, to develop ongoing, onsite training systems (e.g. Candeias et al., 2009, 2010). People learn various techniques during basic training, but what is lacking is a basic attitude and belief system. It is important to improve children's development from early on and to instil in them the belief that they can learn, that people have an inquisitive, explorative attitude to look for effective solutions, and that it is important to participate in as many life opportunities as possible, including going to school. Therefore, training has to address attitudinal and ethical issues as well as practical needs. It should work toward a shift in belief systems and conceptual systems, as well as providing practical, hands-on advice. To realize the goal of inclusion and the activation of children's development, it is essential that transdisciplinary collaboration takes place between all parties: parents, teachers, support staff, medical and rehabilitation staff, and vocational training staff.

Solutions that have proven efficacy (such as practitioner or parent innovations) often remain localized because of language or organizational barriers. Local organizations could therefore benefit from a European level exchange of ideas. To achieve this goal, parent-practitioner cooperation must be strengthened, and in-service training models should be developed which are beneficial to institutional support staff, regular school staff and parents, using approaches that emphasize intellectual development firstly, and inclusion. Hence, the name of the ENABLIN+ project, which has two components. Firstly, "enabling" suggests the opposite of disability. It means to enable a person to function. Secondly, the + or "plus" sign was chosen as a symbol of the ENABLIN+ project, a European partnership, and a 36-month multilateral vocational training project, within the Programme Leonardo Innovation (multilateral project) (project: 541981-LLP-1-2013-1-BE-LEONARDO-LMP).

The initiative addresses the needs of children and youth with CISNs, as identified by their caregivers and supporters. Its intent is to carry out a system of interdisciplinary in-service training programs, where parents and practitioners and parents of various professional backgrounds learn together. The aims are to improve inclusion, promote deinstitutionalization, and enhance the quality of life of CISN children at various age levels. It responds to urgent needs for training, in both wealthier and less prosperous European Union member states, to meet the increasing demands

for supporting children with CISEN, while engaging in deinstitutionalization and organizing the inclusion of children with disabilities in regular schools and life. Currently, vocational training is insufficient to fully prepare practitioners to deal with these issues.

### *Teacher training*

National and international orientations point to the prominence of more active, more collaborative, and more reflective in-service teacher training, due to the expectations of positive results both for teachers and students (National Council of Education, Recommendation No. 4/2013). The Teacher Education for Inclusion (see European Agency for Development in Special Needs Education, 2011) drew up the role profile of inclusive teachers and described the attitudes, knowledge, and skills at the levels of (i) valuing learner diversity; (ii) supporting all learners; (iii) working with others; and (iv) personal professional development. The training model to be developed in ENABLIN+ project will be addressed to these target teachers. Insofar, as in-service teacher training is concerned, Portugal has a law which pursues training based on needs analyses and mobilization of school staff to serve as trainers (Decree-Law No. 22/2014). It also encourages teaching methods based on distance education and the implementation of electronic platform networks. Any training must lead to in-depth professional development that analyzes and explains the educational needs of each student, family, and social context. It must also develop teachers' ability to reflect, individually and collectively, and lead to the implementation of best educational and inclusive practices. Training methods such as consultation, intervention groups, supervisory learning, and coaching may also promote the intended attitudes, knowledge, and skills, as they encourage reflection and focus on learning situations (Schraepen, 2011). The difference between each of these training methods lies basically in whether they focus on teaching and learning, the background of the facilitator, or in the questions introduced by participants. All, however, aim to improve teacher performance. If the coaching and consultation facilitator is someone more proficient in a certain area, in the intervention groups, the members should be mutually supportive. Therefore, in supervised training, the meetings should focus on issues that serve as obstacles to teaching and learning. Not any one of the methods present definitive solutions but, instead, enhance active listening, reflection, mutual support, analysis, and subsequent action (Schraepen, 2011). Indeed, the skills considered essential to the teachers' pedagogical repertoire are also suitable for training teachers themselves. Training will have better outcomes if it is carried out in a democratic culture and sharing environment, in which cooperative and collaborative methodologies are stressed that actively involve all participants (Candeias et al., 2009). All professionals have their own learning styles, so the training must be flexible enough to attend meaningfully to each teacher.

The aim of the present work is to characterize Portuguese teachers' perceptions (TPs) about the training needs of those working with children and young people with CISENs. Such a study may inform the planning of continuous training for practitioners in order to enhance communication, networking, and inclusion.

## **Method**

### *Participants*

The target population were teachers who work in Portuguese public schools. We used nonprobability sampling based on online dissemination and an electronic platform that collected data

because of their relative ease of access. Such a sample may be biased since respondents who volunteer for a study might have different expectations than the population as a whole (Hill and Hill, 2009).

Participants ( $N = 105$ ) ranged from 27 to 60 years of age (median = 45) and 83% were female and 17% male. Most (62.9%;  $n = 66$ ) work in special education, 6.7% ( $n = 7$ ) in kindergartens, and 2.9% ( $n = 3$ ) in primary schools. More than half, 58.9% ( $n = 61$ ) had university degrees, 28.5% ( $n = 31$ ) had master's degrees, and 7.6% ( $n = 8$ ) had a postgraduate degree in special education.

## Procedures

We started by requesting permission from the system monitoring school surveys from the Ministry of Education Services to apply the questionnaires among Portuguese public school teachers and to do so we used the electronic tool LimeSurvey (version 2.05). The questionnaire was analyzed and permission was granted.

We also requested the help of the Ministry of Education to contact schools and teachers. Each school or school cluster then disseminated the questionnaire link among their teachers, who responded and sent back the document to an e-mail address specifically created for this purpose. Care was taken to ensure confidentiality of the participants' responses and their anonymity. When arriving at the LimeSurvey platform, questionnaires were properly numbered (without any reference to the author). The data file generated by LimeSurvey was downloaded and then converted into an SPSS Statistics data file (version 22). The next step was data analysis with data processing SPSS—Statistics Data and Document software.

## Instrument

ENABLIN+ is an initiative of eight partners from different fields and institutional affiliations—universities, in-service training providers, service providers, and expert centers from eight different European countries. Its goal is to enhance the social inclusion of children and young people (aged 0–21) with intense and complex support needs by supporting their formal and informal caregivers and enhancing school integration and home-based assistance which is tailored to learner needs. It also aims to provide sufficient services so as to respond to needs for assistance regarding health, education, and social participation. The goal is to develop a system of interdisciplinary, in-service training for both parents and practitioners and to improve quality of life of children and youngsters. In order to better identify the content of this training as well as the required skills for an excellent support service, we sought more information about practitioner needs.

The instrument used was the questionnaire for practitioners working with children and young people with CISP-TPs (QP-CISP-TPs) (Lebeer et al., 2016). It asks about opinions, attitudes, and respondent perceptions (subjective measures) and it presents these issues as either objective statements or questions. This tool was drafted by a scientific team from the ENABLIN+ project and it was applied in three steps as follows:

1. First, we surveyed bibliographic information about “training needs of practitioners working with children and young people with CISP” which included the initial questions and guiding objectives about areas or domains of training needs of practitioners working with children and young people with permanent disability needs.
2. At a second phase, the Scientific Committee (composed of seven specialists from six countries and different roles: teachers, special education teachers, therapists, and doctors)

met and discussed the content, format, and structure of the QP-CISN-TP. It consists of seven questions distributed unevenly by two dimensions. The initial part is designed to collect sociodemographic data (five questions). The second segment focuses on practitioner training needs and consists of two main, open ended questions:

Q1—"According to your experience/opinion indicate in which areas or domains practitioners should / be trained to improve their practice children and young people with permanent disability." After the question, we inserted a table with eleven categories of practitioners: doctors, psychologists, nurses, teachers, social workers, speech therapists, psychomotor therapists, physiotherapist, occupational therapists, home care assistants, and others (respondents were invited to add other practitioners).

Q2—"If you wish, please comment or add any relevant information regarding vocational training needs of the practitioners that work with children and young people with permanent disability." Again, a table followed with eleven categories of practitioners as in Q1.

Each teacher could select one or more of the practitioners, or select the option "other" and add another relevant professional category to receive training, and give their opinion about each of the practitioners selected.

3. In the third step, the questionnaires were given to a small sample of practitioners in each of the seven partner countries. These data were then presented and discussed at a public session at Varna, in September 2014. Taking into account the suggestions and results collected, we decided to maintain the format of questions and answers and we proceeded to the definitive survey, which was delivered via an electronic platform using LimeSurvey software (version 2.05).

Responses were analyzed using content analysis (Bardin, 2008) in three phases as follows:

1. Pre-analysis: We gathered the necessary documents. The data file generated by Lime-Survey was downloaded from the database and converted into an SPSS Statistics data file (version 22). Then, a document was put together with the alignment of the statements and we proceeded to a brief reading of the answers.
2. In the material exploration phase, the answers were coded by cutting and enumerating the raw text into registration units (RUs), which were then classified and aggregated into categories, according to a semantic criterion. Two pairs of researchers carried out this categorization, in accordance with the criteria of mutual exclusion and relevance. Each researcher organized a list of categories of training needs for each practitioner based on data from Q1 and a list of other relevant topics from a second practitioners' vocational training needs (Q2).
3. Finally, we proceeded to merge the categories identified by each researcher and obtained a concordance rate of 86% to the categorization for each of the categories of practitioner training needs, for data collected in Q1 and Q2. Based on that confluence, we organized two main lists of categories: *List of Categories of Training Needs for each Practitioner* with 15 categories (see Table 1) and a *List of other Relevant Topics Regarding Practitioner Vocational Training Needs*, which includes 13 categories (see Table 2).

**Table 1.** Categories of training needs for each practitioner—TPs.

Categories	Practitioners											
	Doctors	Psychologists	Nurses	Teachers	Social workers	Speech therapist	Psychomotor therapist	Physiotherapist	Occupational therapist	Home care assistant	School staff and directors	RUs
N <sup>a</sup> =	47	41	22	70	35	33	29	19	28	37	3	
Special education	5	2	3	3	3	2	2	2	2	3	1	28
Inclusion	1	1	1	5		2	1	1	2	2		16
Intervention strategies	1	2	1	7	1				2	2	1	15
ICF	5	2		2		2			1			12
Educational legislation	1	2		1		1						5
Family support/intervention				1	2	1				1		4
Developmental psychology	1		1	1								3
Adapted curriculum				3								3
Differentiated assessment				3								3
Eligibility criteria	1	1										2
Articulation with school			1		1							2
Health care and first aid				2								2
Values, ethics, and policies				2								2
ICT				1								1
Conflict management				1								1
Answers <sup>b</sup> (n = 75)	11	7	7	23	5	5	2	2	4	6	3	
RUs	15	11	7	34	7	8	3	3	6	9	2	105

ICF: International Classification of Functioning, Disability and Health; ICT: information and communication technology; RU: registration unit; TP: teachers' perception.

<sup>a</sup>Number of teachers selecting that type of practitioner.

<sup>b</sup>Number of answers that with comments.

**Table 2.** Other relevant topics regarding practitioners' vocational training needs—TPs.

Categories	F (F %)	RUs
Improvement of professional practice	5 (18, 52)	<b>1A</b> "All workers should receive training in the area of disability" <b>3A</b> "(...) knowledge, skills and technical or scientific experiments" <b>4A</b> "(...) They should receive training to improve their practice with children and youth with permanent disabilities" <b>5A</b> "(...) only in this way [with training] can they provide effective and adequate support to students with disabilities" <b>6A</b> "(...)training regarding disability is essential"
Teamwork	2 (7, 41)	<b>2A</b> "(...) all working in the same direction; more sharing" <b>8A</b> "(...) Interaction between team members"
Cross training/network	1 (3, 70)	<b>3B</b> "(...) Cross training in the networking field and role differentiation"
Inclusion	2 (7, 41)	<b>2B</b> "(...) a real sense of inclusion" <b>7A</b> "(...) receive training regarding (...) the inclusion of [people with disability]"
In-service training	1 (3, 70)	<b>5B.</b> "I believe that the training of the abovementioned practitioners is crucial"
Self-development	1 (3, 70)	<b>6B</b> "(...) It is critical that I develop myself further"
ICT training	2 (7, 41)	<b>6C</b> "(...) ICT are important" <b>14A</b> "Everyone should be well trained and always updated in ICT"
Training for all professions	4 (14, 81)	<b>7B</b> "All professions that deal with people must be trained in special needs" <b>9A</b> "(...) it is important to educate all practitioners about children with disabilities" <b>16A</b> "Drivers, porters, cooks, cafeteria and cleaning staff (all people who deal with the children / youth) in a privileged context" <b>17A</b> "(...) not only special education teachers should be trained but also teachers of regular education"
Training in assessment tools (ICF)	2 (7, 41)	<b>11A</b> "Tools for assessing special educational needs." <b>17B</b> "The International Classification of Functioning Disability and Health (ICF) was to be applied by all but, in practice, almost only special education teachers use it."
Values, ethics, and policies of special education	2 (7, 41)	<b>10A</b> "Need to change the culture, policies and practices and to have expectations about these children and young people." <b>9B</b> "(...) it is important to raise awareness on the part of all practitioners about children with disabilities especially regarding the achievements of these children"
Training courses for teachers and health practitioners	3 (11, 11)	<b>12A</b> "Initial teacher training should include a practical approach to special education" <b>15A</b> "Higher education institutions, including the ones in the health area, should include course work dealomg with disability." <b>17C</b> "(...) the regular teachers should receive training in basic notions regarding disability ."
Innovative training modalities	1 (3, 70)	<b>14B</b> "Training for specialist teachers is very limited and it is always the same"
Developmental psychology	1 (3, 70)	<b>13A</b> "(...) training in behavioural changes related to adolescence"

ICF: International Classification of Functioning, Disability and Health; ICT: information and communication technology; RU: registration unit; TP: teachers' perception.



## Results and discussion

We organized the data into two main topics: TPs about training needs for each practitioner and TPs about practitioners' vocational training needs.

### *TPs about training needs for each practitioner*

Based on Q1, we organized Table 1 to illustrate the thematic categories that arose from the content analysis, with the distribution of frequencies for each type of practitioner. Each teacher could select one or more of the listed practitioners or select the option "other" and suggest a new professional category. In this option, a new category emerged (with three answers) that we entitled "school staff and directors." Given these possible answers, the most frequently mentioned practitioners were, in descending order, teachers ( $n = 70$ ), doctors ( $n = 47$ ), psychologists ( $n = 41$ ), home care assistants ( $n = 37$ ), social workers ( $n = 35$ ), and speech therapists ( $n = 33$ ).

After selecting the type of practitioners, respondents were then able to indicate training areas or topics they considered necessary. In this part, 75 indications were collected, producing 105 RUs, which meant that only 20.6% of respondents suggested potential topics for practitioner training. Twenty-three responses were obtained for teachers that produced 34 RUs, 11 responses of doctors yielded 15 RUs, and 7 responses of psychologists led to 11 RUs. The 105 RUs were distributed among 15 categories: special education; inclusion; intervention strategies; ICF; educational legislation; family support/intervention; developmental psychology; adapted curricula; differentiated assessment; eligibility criteria; articulation with school; health care and first aid; values, ethics, and policies; information and communication technology (ICT); and conflict management.

These answers indicated needs which were grouped into two broad topics: practices (intervention strategies, seven RUs; adapted curriculum, three RUs; and differentiated assessment, three RUs) and theoretical knowledge (about inclusion, five RUs; and special education, three RUs). Regarding other practitioners, teachers brought up the training needs of the health care and psychology practitioners with whom they need to collaborate. They more frequently mentioned the training needs of doctors, namely in ICF (five RUs) and special education (five RUs). They also pointed out themes such as inclusion, intervention strategies, eligibility criteria, and educational legislation. This may seem strange, if we consider the role of these professionals in a restricted way or only allocated to their role in terms of diagnosis. However, we must bear in mind that doctors will accompany these children with CISM throughout their lives, often providing information and instructions to the different technicians who work with the child or young person and their parents as well. In Portugal, the words and advice of doctors carry great authority and influence and can be a facilitator or a barrier to inclusion. Thus, the training of these professionals in areas of special education and, in particular, in terms of a functional evaluation (ICF) is fundamental.

With regard to TP of the needs of psychologists, we find again reference to knowledge of special education, inclusion, intervention strategies, ICF, educational legislation, and eligibility criteria. As for the perceived needs of nurses, special education stood out.

In summary, teachers recognize and assume their own need to deepen and improve knowledge and practice regarding intervention strategies, inclusion, special education, and ICF. At the same time, they believe that other practitioners, including doctors, psychologists, speech therapists, nurses, and social workers, could also benefit from special education training. Teachers perceive training needs for practitioners focusing primarily on special education (28 RUs), inclusion (16

RUs), intervention strategies (15 RUs), ICF (12 RUs), and educational legislation (5 RUs). These results suggest that the implementation of biopsychosocial model, based on ICF, in regular schools since Decree-Law No. 3/2008 needs to be disseminated and extended to professionals from the health and social services, as well as to all school staff. As previous studies have pointed out (e.g. Candeias et al., 2009, 2013; Saragoça, 2012; Simeonsson et al., 2010), changing from a medical model based on diagnosis and treatment of disabilities to a biopsychosocial model of functionality implies a profound revolution of values and practices and strong policies and training initiatives. Different countries with different cultures have reached similar conclusions, as, for example, Italy (Leonardi et al., 2005) and Japan (Tokunaga and Tanaka, 2009).

### *TPs about practitioners' vocational training needs*

Table 2 illustrates the thematic categories of Q2 answers of 17 teachers.

Seventeen responses yielded 27 RUs which were distributed among 13 thematic categories: improvement of professional practice, training for all professions, training for teachers and health practitioners, teamwork, cross training/network, inclusion, ICT assessment tool training, special education values, ethics and policies, in-service training, self-proposed training, innovative training methods, and developmental psychology.

Interesting clues and recommendations also emerged from teachers responses regarding the objective of outline of a training plan. Teachers suggested that training should be more practical and reflexive and should promote improving inclusive values and innovation, for example, as this quote illustrates: "We need to change the cultures, policies and practices and to have expectations about these children and young people" (10A), through "a real sense of inclusion" (2B). In addition, it is important to use the ICT, especially during in-service training so as to promote teamwork and encouragement, promote "Interaction between team members" (8A), and promote self-development (6B) and networking (3B).

The content analysis of these responses revealed that teachers' concerns focused mainly on improving professional practice and also training for all professions. This dichotomy suggests that training is important for improving the practices of those already working with children with disability as well as all other staff dealing directly or indirectly with those children. For example, in some research units, "All professions that deal with people must be trained in special needs" (7B), included "Drivers, porters, cooks, cafeteria staff, this is and cleaning staff, all people who deal with the child/youth, in a privileged context" (16A). It is interesting to realize that they also have suggested that, in relation to health practitioners and teachers, "Initial teacher training should include practical special education skills" (12A), "including the ones in the health area" (15A). School staff and principals were spontaneous, if infrequently mentioned by the teachers, as was also the need for training inclusion. We believe that school leadership is a key element in the process of transforming school into an inclusive learning community. Organizationally, such leadership is located at different levels, that is, the top (head teacher), intermediate (coordinators), and first line (teachers) so that the training in inclusion of these different agents should be seen as a future target. Solutions for true inclusion are difficult to attain, and educational leadership is indispensable to meeting the demands of change (Bush, 2011). However, there is no doubt that teachers are the first line of support and response to children with CISON and it is therefore fundamental to understand their perceived needs. In short, teachers stated that there is a clear need for more extensive training in special education, intervention strategies, ICF, and inclusion to the different professionals and systems involved in the responses to children and adults with CISON.

Thus, after Decree-Law No. 3/2008, special education teachers began to work according to a biopsychosocial model and began to follow the practices of evaluation (International Classification of Functioning, Disability and Health [ICF]) and intervention set out in the abovementioned law. However, professionals other than teachers also work with children and young people with disabilities, and they have not had systematic training in these concerns, so that, in practice, a dichotomy of models is used. One is employed by teachers (biopsychosocial model) and another serves other professionals (a more medical model). This mismatch interferes with communication, cooperation, and consultation of actions between different professionals.

In summary, these results reinforce the importance of and the need for more active, more collaborative, and more reflective in-service teacher training. It also depends on teaching practice methods based on distance education and the implementation of electronic platform networks. As we proposed previously, training will have better results if it is developed in a democratic culture and sharing environment that highlights the cooperative and collaborative methodologies that actively involve all participants (Candeias et al., 2009, 2013). Moreover, when dealing with children with disabilities, all the participants—children, parents, and practitioners—may benefit if the contents, methodologies, and theoretical models of assessment and intervention could be shared, in other words, if all the participants use the same language. Such involvement could be maximized if participants learn to solve problems by enhancing active listening, reflection, mutual support, analysis of solutions, and the subsequent action, in a sense of self-development (Schraepen, 2011). TPs collected in these data seem to emphasize that they recognize and are prepared to deepen the biopsychosocial model of functionality in assessment and intervention. The findings also suggest that these professionals recognize the need to extend the model and its consequences to other practitioners. They also express a desire for new training methodologies that are more active, reflective, innovative, and inclusive (including all practitioners) and that are oriented toward real cases and are intent on empowering and enabling practitioners in their efforts to promote children's inclusion.

## Conclusions

In this study, it was possible to characterize TPs about the training needs of practitioners working with children and young people with CISNs.

At the first level of analysis, it was highlighted that this type of training should take place during teachers' initial teacher training and should be extended to other professionals such as doctors, psychologists, all teachers, home care assistants, and others. The need for more knowledge of special education, inclusion, intervention strategies, international classification of functionality, and educational legislation was also pointed out. Such results suggest that the implementation of the biopsychosocial model and all the policies, values, and practical implications for assessment and intervention need to be extended to health and social services, as well as to all school staff, as previously found (e.g. Candeias et al., 2013; Saragoça, 2012; Simeonsson et al., 2010).

At the second level of analysis, a model of cross-training in-service emerges that seeks to respond to needs analyses and to mobilize not only teachers but also all practitioners to participate in the training. This guidance should be more practical and reflexive and aimed at promoting inclusive values based on communication and mediation, networking, and innovation. This will improve collaborative teamwork that actively involves all participants, as proposed by Schraepen (2011). Consistent with previous studies (Candeias et al., 2013; Saragoça et al., 2013), this study also showed that the emerging training needs are indicative of expectations for deepening the

content and development of practical skills. Such content should include the discussion of practical cases, knowledge of assessment tools, and assessment methods that help to characterize the functional profile of the students, in line with the biopsychosocial model, policies, and practices to encourage inclusion (e.g. teamwork, mediation, and inclusion in the regular classes with technical and pedagogical supports) (Candeias et al., 2013; Saragoça et al., 2013).

We finally need to emphasize the limitations associated with the use of online data gathering questionnaires. On the one hand, this procedure allowed us to collect information from a large group of teachers (105), but on the other hand, it did not permit an in-depth interpretation of the data.

In this sense, for future studies, we plan to undertake interviews with teachers regarding their perceptions about the training needs of practitioners working with children with disabilities. We intend to follow that same group of teachers through a development-oriented skills training for a group of practitioners in order to demonstrate the new potential when the training is appropriate, while seeking to understand the changeability of practitioners' attitudes and perceptions during this cross-training in-service process.

We expect to achieve more elaborate, complex, and assertive ways to include and enable children and youngsters with complex and intense disabilities, based on a biopsychosocial approach to functionality, mediation needed to improve inclusion and teamwork and also networking (practitioners should be/feel part of effective networks of support and decided to each case of children with complex and intense needs).

In conclusion, shared training based on a reflexive model that provides training activities adjusted to teachers' and other professionals' interests and needs may be an appropriate response. This training model should take place on a continued and continual basis and should encourage greater knowledge and practices in a reflective fashion. It should also nurture professional and personal development using innovative methods to improve teamwork, mediation, communication, networking, and cooperation. In just two words, said training should *enable inclusion*.

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