

Original Article

**Organisation and management of the ways in which teachers and parents with
children with ASD communicate and collaborate with each other**

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Running Head:

Teachers and parents of children with ASD collaboration

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Abstract

Objectives: This study empirically investigates critical issues relating to prevailing views and perceptions of teachers and parents with children with Autism Spectrum Disorders (ASD) towards the organisation and management of approaches to their efficient collaboration and communication.

Methods: A total sample of 171 teachers and 50 parents with children with ASD attending primary mainstream or special school units in Greece were randomly selected and were subsequently invited to answer a structured questionnaire.

Results: The key empirical results indicate 50.9% of teachers believe teacher-parent meetings for communication and information purposes should be arranged by the schools once a month; 49.1% of teachers once a week; and, the majority of parents (98%) every month. The majority of teachers (90.6%) are seen to contain the view that meetings with children's parents are critical; 90.1% of them feel respect for their students' parents; and, 69.6% of them take parents' views on their children's performance and behaviour very seriously. All parents consider it very important to get to know children's teachers; the majority (82%) feel respect for their children's teachers; 76% of them take teachers' views on their children's performance and behavior into serious consideration; 39.2% of teachers and 88.0% of parents recognise their children's special educational needs.

Conclusion: The critical factors found to play a fundamental role in teachers' views include: the work unit; previous experience of ASD; and, relevant postgraduate studies.

Keywords: teachers; parents; management; collaboration; school; children with ASD

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Introduction

A growing number of incidences in autism spectrum disorders (ASD) (Fombonne 2003; Finkle et al. 2009) has resulted in a greater number of children with ASD participating in the educational process (Centers for Disease Control and Prevention 2010, 2011; Rotheram-Fuller et al. 2010; Kasari et al. 2012). Greek legislation (Greek Official Government Gazette 2008) recognises the right of children with ASD to participate in the educational process at all levels. It also recognises the right of parents to participate in their children's education and assessment and collaborate with related services (Greek Official Government Gazette 2008). This is the most recent legislation on Special Education in Greece which aims to promote inclusion and the functioning of “one school for all”. The legislation states for the first time that individuals with ASD should have access to the education system. They should receive education in the mainstream settings as much as possible and only if it is necessary or inevitable in integration classes or special schools. The legislative recognition of people with ASD in the education system has had several implications for the issue at hand. It recognizes the right of parents to participate in their children assessment and education.

Parental involvement in the education of children with ASD can take a variety of forms (Balli et al. 1998; Mandlawitz 2002; Bitterman et al. 2008; Harrop 2015; Berglund et al. 2012; Di Stasio et al. 2016; Haskett et al. 2012; Ishiguro, Yoshioka 2016; Kim et al. 2015). Parents may participate in school-based activities, such as volunteer working in their children's classroom, communicating with teachers, and attending school meetings (Montes

and Halterman 2006). Parents of children with ASD may also engage in a variety of home-based educational activities with their children, including one-on-one instruction (Anderson and Romanczyk 1999), therapeutic play (Greenspan and Weider 1999), and positive behaviour support (Lucyshyn et al. 2002). Past research indicates that parental involvement varies greatly in early intervention and special education programs for children with disabilities (Dunst 2002). A review of the literature postulates the existence of several factors which might influence parents' engagement in the education of their children with ASD (National Research Council 2001). A critical actor potentially affecting parental involvement is the severity of the problematic behaviour exhibited by the child with ASD. In families where children exhibit severe behavioural difficulties, contending with these challenges may come to constitute an unrelenting and pervasive set of demands, essentially "crowding out" parents' efforts to actively participate in their child's educational program (Spann et al. 2003; Rogers et al. 2009). Similarly, parental involvement may be hindered when children with ASD lack functional language and are unable to maintain ongoing social-communicative interaction with caregivers (Kasari and Sigman 1997; Lecavalier et al. 2006; Benson 2006). In contrast, children with ASD who exhibit prosocial behaviours, such as following directions and staying on task, are likely to encourage greater parental involvement. In addition, parents of children with ASD must also contend with a variety of other demands on their time and energy, including those associated with employment and the care of other children (Brotherman and Golstein 1992). Research indicates working mothers, in particular, face major challenges in balancing family and work commitments and these difficulties are substantially heightened in the case of mothers caring for children with disabilities (Freedman et al. 1995; Clark and Frick 2016). The potentially negative effects of children, family and work demands on parental involvement, however, may be alleviated by resources that allow parents to better manage the demands placed upon them.

Research has found increased parental involvement to be linked to greater parental income and education, indicating that family socio-economic resources can play a crucial role in prompting involvement (Dauber and Epstein 1993). A second potentially crucial resource is the social support parents receive from others (Turner and Turner 1999). The beneficial effects of social support on parents' educational involvement have been examined in several studies (Coots 1998; Gavidia-Payne and Stoneman 1997). While not confined to the families of children with ASD, this thin body of research suggests that social support may serve to promote parents' participation in their children's education by providing parents with the psychosocial resources needed to undertake involvement in the face of countervailing stressors and demands. Another critical set of factors possibly influencing parental involvement is individual school characteristics. In this setting, the extent to which a child's school actively encourages, supports, and provides opportunities for parents to become involved in their children's education remains important (Hoover-Dempsey et al. 2005). The specific ways in which schools support parental involvement, however, may differ depending on whether involvement occurs at school or at home. School facilitation of parent school-based involvement, for example, will likely consist of activities that both provide parents with a welcoming school climate and care-specific opportunities for parents to participate in their children's school program (Hoover-Dempsey et al. 2005). School facilitation of home-based parental educational involvement, on the other hand, may involve efforts that train parents how to interact with and manage their children at home in the community (Marcus et al. 2005). Given that, one would expect school activities would influence parental involvement at school and at home in diverse ways.

The purpose of this paper is to theoretically study, empirically investigate, and critically evaluate the key points in the views of Greek teachers and parents of children with ASD on the organisation and management of the ways in which they communicate and

collaborate with each other. In addition, the importance of collaboration between teachers and parents of children with ASD have had already been legally recognised in the national curriculum on ASD (Ministry of Education and Religious Affairs 2004). Research motivation relates also to the recent legislative framework (Greek Official Government Gazette 2008) introduced into the Greek educational system. It recognises the right of children with ASD to be educated in the mainstream educational system and, as far as possible, in mainstream educational conditions (Greek Official Government Gazette 2008). Current research is also based on global contemporary works, studies and bibliographic sources in the topic at hand. It considers the most recent givens in the field and updates previous ones. Parents are recognised as important participants in the assessment process as well as in the construction of individual educational programs. In addition, parents should continue the educational program taught at their child's school and implement special individual instructions received from teachers and specialized educational staff. In this way, parents can play the role of a co-teacher at home. As children difficulties and deficiencies are predominantly of developmental nature, appear early in life for children with ASD and relate to communication and social interaction, parental contribution is crucial to mediate between their children, on the one hand, and society and bodies, on the other hand. Parents are concerned about their children's well-being (especially after themselves have passed away)and they are keen in tryingany necessary actions that would provide a safe environment for their children. Young parents with a child with ASD may be uninformed, lost and even need psychological support for themselves and guidance for their child. Collaboration between teachers and parents is critical and should start with early intervention in preschool age, since the developmental characteristics should be managed as early as possible. This can contribute to the educational, social and vocational inclusion of every individual with ASD.

A recent study on the collaboration between teachers and parents with children with ASD (Syriopoulou-Delli, et al. 2016) carried out an investigation into the views of teachers and parents on this issue. However, the issue of collaboration between teachers and parents of children with ASD remains critical, since school and family are two environments that a child shares most of the day and over many successive years. Cooperation between the actors in these two social environments is important towards contributing to skills' dilution between the different environments as well as for parents to have a better control of the management of their children's behaviour. Moreover, cooperation between teachers and parents contributes to the collaboration among other bodies, such as speech therapists, physiotherapists, medical doctors and other service specialists. Collaboration between school and family contributes to communication skills, and creates a feeling of security for children. Collaboration between family and school also prevents further difficulties or steps backwards in the development of a child with ASD. For all of the above reasons, this study enhances past empirical research in this field and expands on previous empirical findings. It contributes useful insight into ways of organisation and management in which teachers and parents of children with ASD communicate and collaborate with each other. Previous research has focused on issues of education and management; the authors feel, however, that critical managerial issues of collaboration are seen to prevent parents and teachers from having a smooth and efficient cooperation. The arrangement of constructive and flexible schedules could contribute to handling parents successfully, bearing in mind that parents have a heavy and multifaceted everyday program to manage. In addition, teachers should be ready to consult and inform and guide parents creatively and constructively to benefit their children; hence, ultimately, parents can gain control of the situation at home. It is the authors' strong belief that the investigation of more efficient collaboration approaches between parents and teachers in different grades (from preschool until the end of secondary

education) can contribute positively to the development of children with ASD, their maintenance in school mechanisms, their transition from grade to grade and a choice in youth that will satisfy children, parents and the social environment.

To recap, the purpose of this paper is twofold:

(a) to document the nature and extent of communication and collaboration between teachers and parents of children with ASD, and

(b) to gain a better understanding on parents' and teachers' perspectives as regards the nature and extent of their communication and collaboration.

The core views of teachers and parents on issues relating to the organisation and management of the ways in which they communicate and collaborate with each other are critical inputs that influence the educational performance of children with ASD. Despite the critical importance of this topic, empirical research appears to remain limited and thin. This empirical paper attempts to partially fill the gap in this field.

Methods

Measures

This empirical study is based on the construction, evaluation and statistical analysis of a widely distributed questionnaire survey designed to investigate the views of Greek teachers on the organisation and management of the ways in which they communicate and collaborate with the parents of children with ASD. The questionnaire also considered past relevant literature and similar questionnaires (Georgiou 2000a; Kozyva 2009).

The empirical evaluation of teachers' views was organised on fifteen core questions, divided into two main sections. The first section of the questionnaire focused on the educational and professional experience of the teachers' sample population (eight questions). The second section addressed critical questions across the following four pillars (parts): (a) factors that benefit from teacher-parent communication and frequency of

parents' visits to schools; (b) the planning of communication and collaboration between teachers and parents; (c) factors that influence communication; (d) parents' participation. The first pillar included three sets of questions (19 questions), the second pillar two sets of questions (18 questions), the third pillar one set of questions (6 questions) and the fourth pillar one set of questions (5 questions). Appendix A (sections 1 and 2) develops a typical questionnaire sample to elaborate the empirical framework.

A pilot study was initially conducted with 20 teachers, randomly selected, in the greater Athens area, in order to test for teachers' comprehension and objectivity in answering the questionnaire by a test-retest reliability method. The preliminary teacher responses and feedback, as well as the structure of the questionnaire, were based upon and compared with related empirical input gained from recent relevant international studies on this topic (Benson, Karloff, Siperstein 2008; Zablotsky, Boswell, Smith 2012). The participants complemented the questionnaire twice in a period of two weeks and their answers were correlated using a chi-squared analysis of the contingency table. Since the percentage of agreement for every item was greater than 80%, the pilot study indicated that the initial questionnaire was comprehensive and well organized. The final questionnaire version was evaluated and concluded by the research team.

Similarly, the views of Greek parents on the organisation and management of the ways in which teachers communicate and collaborate with parents of children with ASD were also evaluated through a structured questionnaire, implementing the same method (Appendix B, sections 1 and 2).

From a statistical evaluation viewpoint, Cronbach's α -values were seen to be broadly robust and quite satisfactory, supporting the questionnaire's validity. The questionnaire's reliability was tested with Cronbach's α ; this was found to be 0,865 for teachers and 0,728 for parents, respectively.

Statistical Analysis and multivariate logistic regression

Statistical analysis of the data was performed using SPSS (version 22.0), the standard statistical package for social sciences. All the variables were categorised and expressed as frequencies and percentages. The chi-squared test was incorporated to evaluate any potential association between teachers' views and attitudes and the selected independent variables (teachers' type of educational unit; teachers' experience with children with ASD; teachers' postgraduate studies). To assess the independent impact of teachers' workplaces, experience and postgraduate studies on the organisation and management of the ways in which teachers communicate and collaborate with parents of children with ASD, a multivariate stepwise logistic regression analysis was also performed; teachers' gender, age, place of work and years of employment were considered as possible confounders. Adjusted odds ratios (aOR) with their 95% confidence intervals (CI) were calculated as the measure of association between teachers' workplaces, experience of ASD and postgraduate studies and their views on the organisation and management of the ways in which teachers communicate and collaborate with parents of children with ASD. All tests were two-tailed, and the level of statistical significance was set at (probability, p) $p < 0.05$.

Results

This study attempted to investigate an innovative and under-researched topic. The study sample comprised of 171 teachers [115 females (67.3%) and 48 males (28.1%); 8 individuals with no response] who met the criterion of being a teacher currently working in the Greek formal education system. The study sample comprised of 50 parents [36 females

(72%) and 14 males (28%)] with children with ASD. The core parent demographic characteristics included marital status, age, education, and vocational and economic level. The core teacher demographic and employment characteristics included age and working experience, measured in years of service. In the Greek teachers' sample, 72 teachers (42.1%) were aged up to 30 years old, 53 (31%) were in the 31-40 years age range, 36 teachers (21.1%) in the 41-50 years age range and 9 teachers (5.3%) were around 50 years old. With view to years of employment, 69 teachers (40.4%) had up to five (5) years of employment, 47 teachers (27.5%) had 6-10 years, 13 teachers (7.6%) had 11-15 years, 6 teachers (3.5%) had 16-20 years and 25 (14.6%) had over 20 years of employment. As regards the Greek teachers' training and type of working experience, 42 teachers (24.6% of the entire cohort) had been trained in a Department of Special Education. However, 97 teachers (56.7%) had not undertaken any kind of further studies. A percentage of 61 teachers (35.7%) worked in a special school, 54 (31.6%) in an inclusive class and 55 (32.2%) in a mainstream school as a parallel support teacher. A percentage of 51 teachers (29.8%) had not had any previous working experience with children with ASD and 127 teachers (74.3%) had not undertaken any previous studies on ASD.

In the Greek parents' sample, 2 parents (4%) were aged up to 30 years old, 13 (26%) were in the 31-40 years age range, 23 (46%) were in the 41-50 years age range and 8 parents (16%) were around 50 years old. As regards marital status, 47 parents (94%) were married and 3 (6%) divorced. Twenty-four parents in the sample (48%) had obtained a secondary education certificate, 7 parents (14%) had obtained a degree from a higher technical institution and 19 parents (38%) had obtained a university degree. As for vocational status, 35 parents (70%) had middle vocational status and 15 parents (30%) low vocational status. As for economic status, 44 parents (88%) had average economic status, 5 parents (10%) low, and 1 parent (2%) poor/or below low economic status (Appendix A).

The questionnaires incorporated in the study were distributed to teachers in different cities and towns in mainland Greece between May 2012 and December 2013. The teachers in the teachers' sample had previously participated voluntarily in round-table discussions on critical issues relating to ASD, were employed in different educational units (either parallel support in a mainstream class, a special school or an inclusive class); and had different educational backgrounds and levels of experience with students with ASD. By random sampling, the questionnaires were distributed to one in three attendees of the round-tables; a total of 200 questionnaires were distributed to 600 attendees; and 171 completed questionnaires were eventually returned. The questionnaire responses were anonymous. Written consent was obtained from each respondent.

The questionnaires for parents were distributed to parents in different cities and towns in mainland Greece between May 2012 and December 2013. The parents in the sample had children with ASD in schools and participated voluntarily. The parents were approached through the Greek Parents' Association for the Protection of Children with ASD, and through principals and teachers working in educational units for children with ASD. By random sampling, a total of 100 questionnaires were distributed to 300 parents and 50 completed questionnaires were eventually returned. The questionnaire responses were anonymous.

Teachers' views on the factors that benefit from teacher-parent communication and frequency of parents' visits to schools

Table 1 presents teachers' views on the variables that benefit from teacher-parent communication and the frequency of parents' visits to schools. Approximately half of teachers (n=87, 50.9%) stated monthly meetings arranged by schools were a way of improving the organisation and management of the communication and collaboration

between schools and the families of children with ASD. Ninety-eight percent of parents (n=49) held the same opinion. A percentage of 92.4% of teachers (n=158) believed one way of improving family-school collaboration was by informing parents about the school's mode of operation at the beginning of the school year, while 94% of parents (n=47) believed the daily presence at school of a social worker and psychologist was a good way of improving collaboration. A hundred and fifty-two teachers (88.9%) expressed the opinion communication should be encouraged by school and family, while 100% of parents believed schools should encourage communication. In addition, 145 teachers (84.8%) stated communication should be encouraged by schools and school counsellors.

[INSERT TABLE 1 ABOUT HERE]

Teachers' views on planning communication and collaboration with parents

As regards teachers' views on the planning of communication and collaboration with parents, a percentage of 44.4% of teachers (n=76) stated they communicate with children's parents every month at their own initiative, while 40.9% of teachers (n=70) stated they communicate with parents every week. A percentage of 46.2% of teachers (n=79) stated parents communicate with them every month. Also, 49.1% of teachers (n=84) stated parents visit their schools to get informed every month (Table 2). A percentage of 74.9% of the teachers' sample (n=128) stated their schools invite parents one to two times per year to participate in the organisation of social events (e.g. school excursions, charity events), while 71.9% of teachers (n=123) stated parents visit their schools one to two times per year during an event (e.g. national school celebration or book bazaar).

[INSERT TABLE 2 ABOUT HERE]

A percentage of 41.5% of teachers (n=71) stated they enjoy talking to parents, while 90.6% (n=155 teachers) considered it very important to get to know the parents of the children in their classes. Also, 48.5% of the teachers' sample (n=83) stated parents provide a great deal of information about their children's difficulties. A percentage of 45.6% of teachers (n=78) felt very comfortable about talking about a child with his/her parents. A percentage of 69.6% (n=119 teachers) stated they take into very serious consideration parents' views on their children's performance or/and behaviour. A percentage of 53.8% of teachers (n=92) believed parents help their children with study at home to a moderate extent, while 40.4% of teachers (n=69) believed parents recognise their children's special educational needs to a moderate extent (Table 3).

[INSERT TABLE 3 ABOUT HERE]

Factors that influence communication

Most teachers (90.5%, n=154) stated they feel respect for children's parents, while only 2.9% (n=5 teachers) stated they have negative feelings for parents. A percentage of 82% of parents (n=41) stated they usually feel respect for their child's teachers, while none of the parents stated they have any negative feelings for teachers (Table 4).

[INSERT TABLE 4 ABOUT HERE]

Factors that influence school performance

A percentage of 96.5% of teachers (n=165) supported that child-teacher relationship influence school performance. Most teachers stated they enjoy discussing children's

problems and performances with each other, feel respect for each other, feel comfortable about talking about the children with ASD in their charge, and take into thoughtful consideration each other's views on the children's performance and behaviour. To improve the organisation and management of the ways in which teachers and parents with children with ASD communicate and collaborate with each other, most teachers believed it is necessary to hold monthly school meetings for communication and information purposes. The majority of teachers stated they feel respect for their pupils' parents (90.1%, n=154) and 69.66% of them (n=119 teachers) took thoughtful consideration of parents' views on their children's performance and behaviour. A percentage of 40.4% of teachers (n=69 teachers) believed parents recognise their children's special educational needs (Table 4).

Parents' views on the factors that benefit from teacher-parent communication and frequency of parents' visits to schools

Table 5 presents parents' views on the variables that benefit from teacher-parent communication and the frequency of parents' visits to schools.

INSERT TABLE 5 ABOUT HERE]

Parents' views on planning communication and collaboration with parents

As for the parents, 22 of them (44%) stated they communicate with their children's teachers every month at their own initiative, while 22 parents (44%) stated that teachers communicate with them every month, and 16 parents (32%) stated they visit school to get informed 1-2 times per year. A percentage of 82% of the parents' sample (n=41) stated they participate in the organisation of social events (e.g. school excursions,

charity events) 1-2 times per year, while 78% (n=39) stated they visit their child's school on a scheduled parent information day (Table 6).

INSERT TABLE 6 ABOUT HERE]

Factors that influence communication

On the other hand, 42% of parents stated they enjoy discussions with the teachers, while 66% of the parents' sample (n=33) expressed a strong belief their child's teacher want to meet them. A percentage of 74% (n=37 parents) stated teachers inform them about their children's difficulties, while 74% also stated they feel comfortable to talk about their children with their teachers. A percentage of 76% (n=38 parents) take into very thoughtful consideration teachers' views on their children's performance or/and behaviour, while 48% (n=24 parents) stated they support their children to studying at home. A percentage of 88% (n=44) stated they seriously recognise their children's special educational needs, while 60% strongly believed the teachers are really interested in their children (Table 7). Furthermore, 80% of parents (n=40) believed their child's school is organised in the field of management, while 72% (n=36) believed the teaching staff is doing its best to give children educational support. A percentage of 74% of parents (n=37) stated they completely trust the teacher's opinion as far as their child's everyday behaviour at school is concerned, while 46% (n=23) believed school prepares children for their post-school inclusion in society. Finally, 82% of parents (n=41) stated they have time to go to their child's school in order to learn about his/her progress.

INSERT TABLE 7 ABOUT HERE]

Factors that influence communication and school performance

A percentage of 92% of parents (n=46) stated their belief on relations between children and their teachers influence the children's school performance. (Table 8). Most parents were found to enjoy discussing children's problems and performances with each other, feel respect for each other, feel comfortable about talking about the children with ASD in their charge, and take into consideration each other's views on the children's performance and behaviour.

[INSERT TABLE 8 ABOUT HERE]

Teachers' views on issues relating to the organization and management of teacher-parent communication and collaboration in relation to variables.

The educational unit of work, experience of ASD and relevant postgraduate studies were seen to be the most crucial factors in shaping teachers' views on the organisation and management of school-family communication and collaboration (Table 9).

[INSERT TABLE 9 ABOUT HERE]

Parents who work in special schools expressed the belief that parents should receive information on their children's educational targets every 3 months and a notebook should be used daily in the provision of children support at home. Teachers who work in a parallel support role believed communication should also be encouraged by the family and stated they cooperate with other professionals in the production of educational materials. Teachers with more than 5 years' experience of ASD supported the idea of meetings being held in accordance with parents' wishes, while teachers without experience of ASD believed communication should be encouraged by the Ministry of Education and they should cooperate with other professionals as well (Table 10).

[INSERT TABLE 10 ABOUT HERE]

Teachers with postgraduate studies supported the idea of meetings with parents on a regular monthly basis and communication should be encouraged by the family (Table 11).

[INSERT TABLE 11 ABOUT HERE]

In sum, the earlier empirical results are indicative of teachers and parents being positive towards finding means of improving the ways in which school-family communication and collaboration is organised and managed. It is apparent that they have not been able to find the best ways of achieving this goal yet. These empirical findings are further validated and supported by the multivariate logistic regression analysis (Tables 12, 13, 14).

[INSERT TABLE 12 ABOUT HERE]

[INSERT TABLE 13 ABOUT HERE]

[INSERT TABLE 14 ABOUT HERE]

This latter approach underlines the independent impact of postgraduate studies, working experience and school unit on teachers' perceptions of the organisation and management of school-family communication and collaboration. A broad conclusion put forward, in conjunction with the authors' earlier research, is that teachers should take on the challenge of involving parents in school life without fear of criticism or having their expertise undermined by parents, since the law gives parents the right to participate in their children's assessment process and the organisation of individual educational programs.

Discussion

The current Greek educational policies pay attention to the participation of parents in the process of children's with ASD education. According to Greek legislation,

"collaboration between teachers and parents is a crucial factor in the formation of students' educational experiences" (Greek Official Government Gazette 2008). Several previous relevant studies stress the crucial importance of effectively organising and managing the ways in which schools and families communicate and collaborate with each other (Benson et al. 2008). Despite the importance of teachers' and parents' views on the organisation and management of communication and collaboration between schools and families, empirical research in this field remains limited. A core objective of this study has been to partially fill this gap, focusing on the Greek educational system. This study has investigated the prevailing views of a sample of Greek teachers and parents on issues relating to the organisation and management of school-family communication and collaboration. A critical empirical finding of this study postulates that most Greek teachers are in favour of having frequent communication with parents and are willing to cooperate with them. Furthermore, it appears that parents are also keen to collaborate with teachers on issues of their children's education. One of the most important and decisive findings of this study is the high percentage of mutual respect among teachers and parents (90.1% of teachers, 82.0% of parents). This supports the positive feelings and perceptions between teachers and parents for more convergence and collaboration on issues of education and management of children. This is a solid basis for further, intensive and multifaceted collaboration between teachers and parents, excluding any negative feelings of intervention in professional fields or parental relationships. Parents are seen to find support and appropriate guidance and they recognize teachers' role on issues of education and management. In addition, teachers (86.0%) and parents (84.0%) recognize the crucial role of parents' support at home and collaboration should aim to increase their effectiveness in controlling their children's behaviour and implement teaching and educational school targets. This can contribute to generalization of skills cultivated in school environment, coordination of actions between

different people, development of links between teachers, special scientific personnel, parents and children.

Teachers' education, experience of ASD and educational unit of work are seen to play a fundamental role in enabling teachers to deal more effectively with issues relating to the organisation and management of school-family communication and collaboration.

Despite various limitations in the empirical research (sample, research methodology), it is clear that teachers' views on the organisation and management of school-family communication and collaboration are related to their educational unit of work, experience of ASD and postgraduate studies.

In conclusion, as this study indicates, although teachers and parents agree in certain respects on issues relating to the organisation and management of teacher-parent communication and collaboration, there are also certain constraints and shortcomings in the form this organisation and management takes. These research findings appear to induce a range of implications for parental involvement. First, parental involvement is argued to relate to students' learning results (Redding et al. 2004). Hence, the relation between parents' satisfaction and students' success should be incorporated into parents' overall involvement in their children's school life and activities. School activities should take into consideration the complexity of parents' needs, in cases they have children with complex and multifaceted conditions, such as ASD. Schools and their staff need to undertake continuous training and technical assistance in the area of parental collaboration and support, so they can gain a better understanding of approaches to facilitate parental participation and related parental and children expectations. As a result, they can shape a clearer perception of the ways in which improved parental participation can lead to children achieving better results. Parental participation and collaboration at school, children's individual characteristics and children's success could and should form part of a school's

improvement plans, in accordance with the principle that no child should be left outside the education system. Since the involvement of parents is an imperative and crucial part of children's educational programs, the active participation of parents and children with ASD in the implementation and improvement of individual child development plans and children's assessment process can lead to material improvements in children's school results. In addition, since parents' satisfaction may increase with the development of services that can improve students' results and reduce parental anxiety, schools should seek ways of collaborating with other services to increase their capacity to offer or to connect parents with services. By involving members of the community and building up services, schools can improve their capacity to ameliorate parents' participation and satisfaction, as well as children's results.

Parents with children with ASD are a critical link in school life and educational activities. However, in order to increase parental participation, the satisfaction gained by those parents from their children's schools should be increased. Meetings between parents and teachers and collaboration with school counsellors should serve to improve communication between schools and families with children with ASD and to increase the quality and level of parental involvement.

Teachers' and parents' suggestions on how teacher-parent communication and collaboration can be better organised and managed concern the frequency of school visits (once a month on average), parental involvement in the organisation and implementation of school activities, school information days for parents and methods of communication, and the initiation of communication both by schools and families. The effective organisation and management of teacher-parent communication and collaboration has an impact on the education quality of children's with ASD education and the relations between children and their teachers. The results of this study have been encouraging and underline the critical

implications the organisation and management of teacher-parent communication and collaboration has for the educational improvement of children with ASD. The findings can be incorporated to improve the approaches of collaboration of family and school and to tackle certain challenges in the current educational system. The actors in these two environments should establish a continuous and constructive collaboration, beyond the legislative parental right to participate in the assessment and education of children with ASD. As to the management of collaboration approaches, teachers can take initiatives to collaborate with parents flexibly. An agreement on electronic communication with parents, in conjunction with scheduled feedback meetings with parents on their children adaptation in the school environment, should be designed. As to the context of collaboration, constructive suggestions would be the organization of feedback days with speeches by experienced parents on issues of management of difficulties of ASD, the institution of information schedule and meetings by special scientific staff, such as speech therapists, the participation of parents in productive bodies of the community as well as civil services (e.g. banks) and the collaboration of organization of events that would promote children inclusion. As a matter of fact, these issues remain challenging for further research in the field. That is, further investigation of parents' views on the organisation and management of teacher-parent communication and collaboration would shed additional light on the ways in which both actor groups can cooperate and contribute to the education of students with ASD.

Limitations of the study

This study has been limited by certain constraints. As it has already been stated, the research previously conducted in this field remains thin and limited. In addition, the sample size had to be reduced to keep the teachers' cohort at a manageable level.

Further investigation of this issue can include larger samples of parents, since parents constitute a prime social environment for the child, establish a communication approach with the child and mediate between their child and school staff. Furthermore, it is important to incorporate larger samples of parents' views on collaboration with teachers in different cities and school units. Ideally, further evaluation of the structured questionnaire and the distribution process should be conducted. Future research is mandatory since educational policy and inclusion of students with ASD started and precipitated in 2008 (Law 3699/2008; Greek Official Government Gazette 2008). This study contributes certain innovative and pioneer empirical findings in the crucial topic of collaboration among critical actors, who should establish clear and robust links of communication on children's development and coordinate their actions for children's benefits. Dynamic links between teachers, specialized staff, assessment bodies, counselling and support bodies should retain a continuous communication. This can support a more efficient coordination of their actions, broaden teaching targets in different environments to become comprehensive to parents (who bear the children's on-going, intensive care), and focus on children's critical targets, working on with children themselves and related bodies. A complexity of networks of communication, collaboration and support should remain integrated (and not fragmented), stable, robust, efficient and functional for parents' and children's well-being. Future research can also contribute further empirical feedback on the impact of different teaching approaches and related parental perceptions, whether parents feel confident to implement these approaches and how they can handle their children's difficulties more efficiently, whether parents evaluate these approaches as effective and perceive apt results in adaptation and management of behavioural difficulties. Future research is useful to investigate

different forms of collaboration in depth, focusing on distinct aspects of developmental difficulties, management and teaching in special schools, mainstream schools and inclusive classes. Further research, moreover, can focus on parental and teacher needs of support and information feedback to address the efficient management of these difficulties towards more functional outcomes.

Ethical approval: All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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**Organisation and management of the ways in which teachers and parents with
children with ASD communicate and collaborate with each other**

Part I

Factors that benefit from communication and frequency of visits

Table 1

Teachers' responses: Which factors are important for school-family communication

	Yes		No		No response	
	n	%	n	%	n	%
<i>Ways of improving collaboration between parents and teachers</i>						
Meetings in accordance with parents' wishes	76	44.4	95	55.6	0	0.0
Informing parents about the school's mode of operation at the beginning of the school year	158	92.4	13	7.6	0	0.0
Informing parents about educational targets every 3-month period	152	88.9	19	11.1	0	0.0
Daily use of notebook in children's support at home	151	88.3	20	11.7	0	0.0
Creation of parents' centres inside schools	118	69.0	53	31.0	0	0.0
Prearranged visits to children's homes	100	58.5	71	41.5	0	0.0
Parents' participation in social activities at school	157	91.8	14	8.2	0	0.0
Daily availability at school of social worker and psychologist	125	73.1	46	26.9	0	0.0
	Every Month		Every Week		No response	
	n	%	n	%	n	%
Meetings prearranged by the school	87	50.9	84	49.1	0	0.0
	Yes		No		No response	
	n	%	n	n	%	n
<i>Communication with the school should be encouraged by</i>						
School only	34	19.9	137	80.1	0	0.0
Family only	48	28.1	123	71.9	0	0.0
School and family	152	88.9	19	11.1	0	0.0
School and local services	107	62.6	64	37.4	0	0.0
School and Medical Pedagogical Centres	141	82.5	30	17.5	0	0.0
School and school counsellor	145	84.8	26	15.2	0	0.0
Ministry of Education	107	62.6	64	37.4	0	0.0
Parents' and Guardians' Association	115	67.3	56	32.7	0	0.0

Part II
 Planning of communication and collaboration with parents

Table 2

Teachers' responses: Which factors are important for school-family communication

	Never		1-2 times per year		Every month		Every week		No response	
	n	%	n	%	n	%	n	%	n	%
<i>How often do the following happen?</i>										
You communicate with children's parents at your own initiative	6	3.5	11	6.4	76	44.4	70	40.9	8	4.7
Parents communicate with you	2	1.2	31	18.1	79	46.2	49	28.7	10	5.8
Parents visit school to get informed	2	1.2	53	31.0	84	49.1	22	12.9	10	5.8
School invites parents to an event (e.g. school celebration, book bazaar)	4	2.3	122	71.3	35	20.5	0	0.0	10	5.8
Parents visit school during an event (e.g. school celebration, book bazaar)	7	4.1	123	71.9	33	19.3	0	0.0	8	4.7
School invites parents to a scheduled parent information day	5	2.9	83	48.5	71	41.5	0	0.0	12	7.0
Parents participate in a scheduled information meeting	3	1.8	96	56.1	62	36.3	2	1.2	8	4.7
School invites parents to participate in the organisation of social events (e.g. school excursion, charity event)	21	12.3	128	74.9	PP	8.2	0	0.0	8	4.7
Parents participate in the organisation of social events (e.g. school excursion, charity event)	39	22.8	101	59.1	17	9.9	2	1.2	12	7.0

Table 3

Teachers' responses: Which factors are important for school-family communication

	A little		To a moderate extent		A lot		No response	
	n	%	n	%	n	%	n	%
<i>To what extent do the following things happen with the parents of children with ASD?</i>								
I enjoy discussions with parents	10	5.8	71	41.5	70	40.9	20	11.7
I consider it important to get to know children's parents	4	2.3	5	2.9	155	90.6	7	4.1
Parents inform me about their children's difficulties	7	4.1	72	42.1	83	48.5	9	5.3
I feel comfortable talking about a child with his/her parents	7	4.1	73	42.7	78	45.6	13	7.6
I take into serious consideration parents' views on their children's performance or/and behaviour	8	4.7	35	20.5	119	69.6	9	5.3
Parents help their children at home with study	16	9.4	92	53.8	50	29.2	13	7.6
Parents recognise their children's special educational needs	26	15.2	69	40.4	67	39.2	9	5.3
During my free time I collect teaching material	11	6.4	67	39.2	86	50.3	7	4.1
I cooperate with other professionals as well in order to produce educational materials	30	17.5	67	39.2	69	40.4	5	2.9

Part III

Factors that influence communication

Table 4

Teachers' responses: Which factors are important for school-family communication

	Yes		No		No Response	
	n	%	n	n	%	n
<i>What are your usual feelings towards your students' parents?</i>						
Respect	154	90.1	17	9.9	0	0.0
Trust	117	68.4	54	31.6	0	0.0
Anxiety	55	32.2	116	67.8	0	0.0
Reserve, suspicion	42	24.6	129	75.4	0	0.0
Negative mood	5	2.9	166	97.1	0	0.0
Neutral, indifferent feelings	15	8.8	156	91.2	0	0.0
<i>Factors that influence school performance</i>						
Parents' support in homework	147	86.0	24	14.0	0	0.0
Child-parent relationship	158	92.4	13	7.6	0	0.0
Parent-teacher relationship	153	89.5	18	10.5	0	0.0
Child-teacher relationship	165	96.5	6	3.5	0	0.0
Relationships between children	134	78.4	37	21.6	0	0.0

Part I

Factors that benefit from communication and frequency of parents' visits to schools

Table 5

Ways of improving collaboration between teachers and parents

	Yes		No		No response	
	n	%	n	%	n	%
<i>Ways of improving collaboration between teachers and parents</i>						
Meetings in accordance with parents' wishes	34	68.0	16	32.0	0	0.0
Informing parents about the school's mode of operation at the beginning of the school year	37	74.0	13	26.0	0	0.0
Informing parents about educational targets every 3-month period	39	78.0	11	22.0	0	0.0
Daily use of notebook in children's support at home	42	84.0	8	16.0	0	0.0
Creation of parents' centres inside school	31	62.0	19	38.0	0	0.0
Prearranged visits to children's homes	18	36.0	32	64.0	0	0.0
Parents' participation in social activities at school	46	92.0	4	8.0	0	0.0
Daily availability at school of social worker and psychologist	47	94.0	3	6.0	0	0.0
	Every month		Every week		No response	
	n	%	n	%	n	%
Meetings prearranged by the school	49	98.0	1	2.0	0	0.0
	Yes		No		No response	
	n	%	n	n	%	N
<i>Communication with school should be encouraged by:</i>						
School	50	100.0	0	0.0	0	0.0
Family	39	78.0	11	22.0	0	0.0
Parents' & Guardians' Association	28	56.0	22	44.0	0	0.0
School counsellor	23	46.0	27	54.0	0	0.0
Medical Pedagogical Centres	14	28.0	36	72.0	0	0.0
School and local services	8	16.0	42	84.0	0	0.0
Ministry of Education	12	24.0	38	76.0	0	0.0

Part II
 Planning of communication and collaboration with teachers

Table 6

Ways of improving collaboration between teachers and parents

	Never		1-2 times per year		Every month		Every week		Noresponse	
	n	%	n	%	n	%	n	%	n	%
<i>How often do the following happen during the school year?</i>										
You communicate with your child's teachers at your own initiative	7	14.0	8	16.0	22	44.0	13	26.0	0	0.0
Teachers communicate with you	4	8.0	14	28.0	19	38.0	13	26.0	0	0.0
You visit school for information	30	60.0	16	32.0	2	4.0	2	4.0	0	0.0
The school invites you to an event (e.g. school celebration, book bazaar)	2	4.0	38	76.0	10	20.0	0	0.0	0	0.0
You visit school during an event (e.g. school celebration, book bazaar)	8	16.0	38	76.0	4	8.0	0	0.0	0	0.0
You visit school on a scheduled parent information day	2	4.0	39	78.0	9	18.0	0	0.0	0	0.0
The school invites you to a scheduled parents' meeting	18	36.0	31	62.0	0	0.0	0	0.0	1	2.0
The school invites you to participate in the organisation of social events (e.g. school excursion, charity event)	6	12.0	27	54.0	14	28.0	0	0.0	3	6.0
You participate in the organisation of social events (e.g. school excursion, charity event)	8	16.0	41	82.0	0	0.0	0	0.0	1	2.0

Table 7

Ways of improving collaboration between teachers and parents

	A little		To a moderate extent		A lot		No response	
	n	%	n	%	n	%	n	%
<i>To what extent do the following things happen with the parents of children with ASD?</i>								
I enjoy discussions with the teacher	1	2.0	21	42.0	26	52.0	2	4.0
I consider it important to know my child's teacher	0	0.0	0	0.0	50	100.0	0	0.0
I believe the teacher wants to meet me	2	4.0	14	28.0	33	66.0	1	2.0
The teachers inform me about my child's difficulties	5	10.0	7	14.0	37	74.0	1	2.0
I feel comfortable talking about my child with his/her teacher	0	0.0	13	26.0	37	74.0	0	0.0
I take into serious consideration the teacher's views on my child's performance or/and behaviour	2	4.0	9	18.0	38	76.0	1	2.0
I help my child at home with study	8	16.0	13	26.0	24	48.0	5	10.0
I recognise my child's special educational needs	1	2.0	5	10.0	44	88.0	0	0.0
I believe that the teachers are really interested in my child	2	4.0	18	36.0	30	60.0	0	0.0
I send material and I offer voluntary work at school	21	42.0	26	52.0	1	2.0	2	4.0
I seek information on my child's problem during my free time	3	6.0	20	40.0	27	54.0	0	0.0

Part III
Factors that influence communication

Table 8

Ways of improving collaboration between teachers and parents

	Yes		No		No response	
	n	%	n	%	n	%
<i>What are your usual feelings towards your child's teachers?</i>						
Respect	41	82.0	9	18.0	0	0.0
Trust	39	78.0	11	22.0	0	0.0
Anxiety	6	12.0	44	88.0	0	0.0
Reserve, suspicion	6	12.0	44	88.0	0	0.0
Negative mood	0	0.0	50	100.0	0	0.0
Neutral, indifferent feelings	10	20.0	40	80.0	0	0.0
Other(s)	7	2.0	49	98.0	0	0.0
<i>Factors that influence school performance</i>						
Parental support during study at home	42	84.0	8	16.0	0	0.0
Child-parent relationship	42	84.0	8	16.0	0	0.0
Parent-teacher relationship	30	60.0	20	40.0	0	0.0
Child-teacher relationship	46	92.0	4	8.0	0	0.0
Relationships between children	35	70.0	15	30.0	0	0.0

Part IV
Parental participation

Table 9

Teachers' views on issues relating to the organisation and management of teacher-parent communication and collaboration in relation to their place of work

	Educational unit						p-value
	Parallel support		Inclusive class		Special school		
	n	%	n	%	n	%	
<i>Ways of improving collaboration between teachers and parents</i>							
Meetings in accordance with parents' wishes	23	41.8	26	48.1	26	42.6	0.768
Monthly meetings prearranged by the school	32	58.2	28	51.9	27	44.3	0.323
Informing parents about children's educational targets every 3 months	48	87.3	44	81.5	59	96.7	0.032
Daily use of notebook in children's support at home	54	98.2	44	81.5	52	85.2	0.017
<i>Encouragement of communication with the school by</i>							
School only	16	29.1	11	20.4	7	11.5	0.060
Family only	26	47.3	17	31.5	5	8.2	0.000
School and local services	35	63.6	31	57.4	40	65.6	0.647
Ministry of Education	36	65.6	39	72.2	31	50.8	0.052
<i>Planning of communication and collaboration with parents</i>							
Parents visit school monthly during an event (e.g. school celebration, book bazaar)	12	21.8	13	24.5	8	14.8	<i>n.e.</i>
<i>To what extent do the following things happen with the parents with children with ASD?</i>							
Parents inform me of children's difficulties	20	37.7	27	50.0	35	64.8	0,026
I cooperate with other professionals in the production of educational materials	25	47.2	20	37.0	23	39.7	0.003
<i>What are your usual feelings towards your students' parents?</i>							
Respect	45	81,8	52	96.3	56	91.8	0.035
Reserve, suspicion	15	27.3	20	37.0	7	11,5	0,006
<i>Factors that influence school performance</i>							
Parental help in study at home	46	83.6	50	92.6	50	82.0	0.223

n.e.= not-estimated

Table 10

Teachers' views on issues relating to the organisation and management of teacher-parent communication and collaboration in relation to working experience of ASD

	Years of working experience of ASD						p-value
	None		1 - 4		>5		
	n	%	n	%	n	%	
<i>Ways of improving collaboration between teachers and parents</i>							
Meetings in accordance with parents' wishes	15	29.4	40	46.5	21	61.8	0.011
Monthly meetings prearranged by school	19	37.3	52	60.5	16	47.1	0.028
Informing parents about children's educational targets every 3-month period	49	96.1	73	84.9	30	88.2	<i>n.e.</i>
Daily use of notebook for communication in support of child at home	42	82.4	82	95.3	27	79.4	0.014
<i>Communication with the school should be encouraged by</i>							
School only	10	19.6	24	27.9	0	0.0	<i>n.e.</i>
Family only	17	33.3	29	33.7	2	5.9	0.006
School and local services	30	58.8	52	60.5	25	73.5	0.331
Ministry of Education	38	74.5	52	60.5	17	50.0	0.062
<i>Planning of communication and collaboration with parents</i>							
Parents visit school during a monthly event (e.g. school celebration, book bazaar)	4	9.1	19	22.4	10	29.4	<i>n.e.</i>
<i>To what extent do the following things happen with the parents of children with ASD?</i>							
Parents get informed about their child's difficulties	26	59.1	36	42.9	21	61.8	<i>n.e.</i>
I cooperate with other professionals in the production of educational materials	22	45.8	33	39.3	14	41.2	0.015
<i>What are your usual feelings towards your students' parents?</i>							
Respect	40	78.4	80	93.0	34	100.0	<i>n.e.</i>
Reserve, suspicion	9	17.6	28	32.6	5	14.7	0.048
<i>Factors that influence school performance</i>							
Parental help in study at home	44	86.3	76	88.4	27	79.4	0.443

n.e.= not-estimated

Table 11

Teachers' views on issues relating to the organisation and management of teacher-parent communication and collaboration in relation to postgraduate studies

	Postgraduate studies				p-value
	Yes		No		
	n	%	n	%	
<i>Ways of improving collaboration between teachers and parents</i>					
Meetings in accordance with parents' wishes	44	59.5	32	33.0	0.001
Monthly meetings prearranged by school	49	66.2	38	39.2	0.000
Informing parents about children's educational targets every month	66	89.2	86	88.7	0.913
Daily use of notebook for communication in support of children at home	67	90.5	84	86.6	0.427
<i>Communication with school should be encouraged by</i>					
School only	26	35.1	8	8.2	0.000
Family only	32	43.2	16	16.5	0.000
School and local services	38	51.4	69	71.1	0.008
Ministry of Education	46	62.2	61	62.9	0.923
<i>Planning of communication and collaboration with parents</i>					
Parents visit school every month during an event (e.g. school celebration, book bazaar)	9	12.2	24	27.0	0.032
<i>To what extent do the following things happen with the parents of children with ASD?</i>					
Parents inform me about their children's difficulties	37	50.0	46	52.3	0.376
I cooperate with other professionals in the production of educational materials	32	43.2	37	40.2	0.192
<i>What are your usual feelings towards your students' parents?</i>					
Respect	70	94.6	84	86.6	0.083
Reserve, suspicion	15	20.3	27	27.8	0.255
<i>Factors that influence school performance</i>					
Parental help in study at home	70	94.6	77	79.4	0.005

Table 12

Teachers' answers in association with their experience of ASD expressed as adjusted Odds ratio (aOR) with their 95% confidence intervals (CI)

		Previous experience of ASD			
		None		1 – 4 years	
		aOR (95% CI)	p-value	aOR (95% CI)	p-value
Ways of improving collaboration between teachers and parents					
Meetings in accordance with parents' wishes	Yes	1	.	1	.
Monthly meetings prearranged by the school	No	16.647 (4.346-63.757)	0.000	4.602 (1.418-14.932)	0.011
Informing parents about children's educational targets every 3 months	Every month	1	.	1	.
	Every week	-	-	-	-
Meetings in accordance with parents' wishes Monthly meetings prearranged by the school	Yes	1	.	1	.
	No	-	-	-	-
Informing parents about educational aims every 3 months	Yes	1	.	1	.
	No	-	-	0.175 (0.032-0.947)	0.043
Encouragement of communication with school by					
School only	Yes	1	.	1	.
	No	-	-	-	-
Family only	Yes	1	.	1	.
	No	-	-	-	-
School and local services	Yes	1	.	1	.
	No	-	-	-	-
Ministry of Education	Yes	1	.	1	.
	No	-	-	-	-
Planning of communication and collaboration with parents					
	Never	-	-	-	-
Parents visit school every month during an event (e.g. school celebration, book bazaar)	1-2 per year	4.952 (1.166-21.041)	0.030	-	-
	Every month	1	.	1	.
	Every week	-	-	-	-
To what extent do the following things happen with the parents of children with ASD?					
Parents inform me about their children's difficulties	A little	-	-	-	-
	To a mod. ext.	-	-	-	-
	A lot	1	.	1	.
I cooperate with other professionals in the production of educational materials	A little	-	-	-	-
	To a mod. ext.	0.286 (0.087-0.946)	0.040	-	-
	A lot	1	.	1	.
What are your usual feelings towards the parents of your students?					
Respect	Yes	1	.	1	.
	No	-	-	-	-
Reserve, suspicion	Yes	1	.	1	.
	No	-	-	-	-
Factors that influence school performance					
Parental help in study at home	Yes	1	.	1	.

No - - - -

Results of Multivariate Logistic Regression, adjusting for teacher's gender, age, educational unit, postgraduate studies and experience of ASD.

Table 13

Teachers' answers in association with their educational unit expressed as adjusted Odds ratio (aOR) with their 95% confidence intervals (CI)

		Educational unit			
		Parallel support in MS		Inclusive class	
		aOR (95% CI)	p-value	aOR (95% CI)	p-value
Ways of improving collaboration between teachers and parents					
Meetings in accordance with parents' wishes	Yes	1	.	1	.
Monthly meetings prearranged by the school	No	-	-	-	-
Informing parents about learning- educational targets every 3 months	Every month	1	.	1	.
	Every week	-	-	-	-
Meetings in accordance with parents' wishes	Yes	1	.	1	.
Monthly meetings prearranged by the school	No	-	-	6.597 (1.240-35.085)	0.027
Informing parents about learning-educational targets every 3 months	Yes	1	.	1	.
	No	-	-	-	-
Encouragement of communication with the school by					
School only	Yes	1	.	1	.
	No	-	-	-	-
Family only	Yes	1	.	1	.
	No	0.050 (0.013-0.195)	0.000	0.179 (0.049-0.655)	0.009
School and local services	Yes	1	.	1	.
	No	-	-	-	-
Ministry of Education	Yes	1	.	1	.
	No	-	-	-	-
Planning of communication and collaboration with parents					
Parents visit school every month during an event (e.g. school celebration, book bazaar)	Never	-	-	-	-
	1-2 per year	-	-	-	-
	Every month	1	.	1	.
	Every week	-	-	-	-
To what extent do the following things happen with the parents of children with ASD?					
Parents get informed about their children's difficulties	A little	-	-	-	-
	To a mod. ext.	3.281 (1.244-8.658)	0.016	2.583 (0.989-6.743)	0.053
	A lot	1	.	1	.
I cooperate with other professionals in the production of educational materials	A little	5.507 (1.005-30.176)	0.049	9.863 (1.831-53.118)	0.008
	To a mod. ext.	0.365 (0.143-0.932)	0.035	-	-
	A lot	1	.	1	.
What are your usual feelings towards the parents of your students?					
Respect	Yes	1	.	1	.
	No	14.870 (2,012-29.880)	0.008	-	-
Reserve, suspicion	Yes	1	.	1	.
	No	-	-	0.343 (0,120-0,982)	0.046
Factors that influence school performance					
Parental help in study at home	Yes	1	.	1	.
	No	-	-	0.110 (0.018-0.656)	0.015

Results of Multivariate Logistic Regression, adjusting for teacher's gender, age, educational unit, postgraduate studies and experience of ASD.

Table 14

Teachers' answers in association with their postgraduate studies expressed as adjusted Odds ratio (aOR) with their 95% confidence intervals (CI)

		Postgraduate Studies on ASD	
		aOR (95% CI)	p-value
Ways of improving collaboration between teachers and parents			
Meetings in accordance with parents' wishes	Yes	1	.
Monthly meetings prearranged by the school	No	0.109 (0.041-0.289)	0.000
Informing parents about educational targets every 3 months	Yes	1	.
	No	0.374 (0.176-0.793)	0.010
Meetings in accordance with parents' wishes	Yes	1	.
Monthly meetings prearranged by the school	No	-	-
Informing parents about learning- educational aims every 3 months	Yes	1	.
	No	-	-
Communication with school should be encouraged by			
School only	Yes	1	.
	No	0.117 (0.037-0.367)	0.000
Family only	Yes	1	.
	No	0.071 (0.021-0.246)	0.000
School and local services	Yes	1	.
	No	3.244 (1.460-7.205)	0.004
Ministry of Education	Yes	1	.
	No	-	-
Planning of communication and collaboration with parents			
Parents visit school monthly during an event (e.g. school celebration, book bazaar)	Never	-	-
	1-2 per year	3.134 (1.144-8.584)	0.026
	Every month	1	.
	Every week	-	-
To what extent do the following things happen with the parents of children with ASD?			
Parents informed about their children's difficulties	A little	-	-
	To a mod. ext.	-	-
	A lot	1	.
I cooperate with other professionals in the production of educational materials	A little	-	-
	To a mod. ext.	-	-
	A lot	1	.
What are your usual feelings towards your students' parents?			
Respect	Yes	1	.
	No	-	-
Reserve, suspicion	Yes	1	.
	No	-	-
Factors that influence school performance			
Parental help in study at home	Yes	1	.
	No	0.095 (0.020-0.453)	0.003

Results of Multivariate Logistic Regression, adjusting for teacher's gender, age, educational unit, postgraduate studies and experience of ASD.

Appendices

Appendix A

Teachers' demographic characteristics.

	N	%
Gender		
Male	48	28.1
Female	115	67.3
No response	8	4.7
Age		
<30	72	42.1
31 – 40	53	31.0
41 – 50	36	21.1
> 50	9	5.3
No response	1	0.6
Years of employment in education		
<5	69	40.4
5 – 10	47	27.5
11 – 15	13	7.6
16 – 20	6	3.5
> 20	25	14.6
No response	11	6.4
Undergraduate education		
Pedagogical Academy (PA)	22	12.9
PA & extra 2 years equivalent to higher degree (Department of) Primary Education	33	19.3
(Department of) Special Education	55	32.2
Other	42	24.6
No response	8	4.7
No response	11	6.4
Postgraduate Studies		
Yes	74	43.3
No	97	56.7
Type of educational unit		
Parallel support in mainstream school	55	32.2
Inclusive class	54	31.6
Special school	61	35.7
No response	1	0.6
Years of working experience with children with ASD		
None	51	29.8
1 – 4	86	50.3
≥ 5	34	19.9

Studies on ASD

Yes	44	25.7
No	127	74.3

Parents' demographic and other characteristics.

	n	%
Gender		
Male	14	28.0
Female	36	72.0
Age		
≤40	15	30.0
>40	31	62.0
No response	4	8.0
Marital status		
Married	47	94.0
Divorced	3	6.0
Education		
Secondary education	24	48.0
Higher technical education	7	14.0
Higher education	19	38.0
Vocation		
Low	15	30.0
Medium	35	70.0
Economic status		
Medium	44	88.0
Low	5	10.0
Poor	1	2.0

Prearranged meetings- visits to children's homes		
Parents' participation in social activities at school		
Daily availability at school of social worker and psychologists		

11. Communication with school should be encouraged by:

	Yes	No
School only		
Family only		
School and family		
School and local services		
School and Medical Pedagogical Centres		
School and school counsellors		
Ministry of Education		
Parents and Guardians' Association		

Part III. Planning of communication and collaboration with parents

12. How often do the following things happen?

During the school year	Never	1-2 times per year	Every month	Every week
You communicate with children's parents at your own initiative				
Parents communicate with you				
Parents visit school to get informed				
School invites parents to be present at an event (e.g. school celebration, a book bazaar)				
Parents visit school during an event (e.g. school celebration, a book bazaar)				
School invites parents to a scheduled parent information day				
Parents participate in a scheduled information day				
School invites parents to participate in the organisation of social events (e.g. school excursion, charity event)				
Parents participate in the organisation of social events (e.g. school excursion, charity event)				

13. To what extent do the following things happen with the parents of children with ASD?

	A little	To a mod. extent	A lot
I enjoy discussions with parents			
I consider it important to get to know children's parents			
Parents inform me about their children's difficulties			
I feel comfortable talking about a child with his/her parents			
I take into serious consideration parents' views on their children's performance or/and behaviour			
Parents help their child at home with studying			
Parents recognise their children's special educational needs			
During my free time I collect teaching material			
I cooperate with other professionals as well in order to produce educational materials			

Part IV. Factors that influence communication

14. What are your usual feelings towards your students' parents?

	Yes	No
Respect		
Trust		
Anxiety		
Reserve, suspicion		
Negative mood		
Neutral, indifferent feelings		

Part V. Parents' participation.

15. Which factors influence children's progress at school?

	Yes	No
Parental support in study at home		
Child-parent relationships		
Parent-teacher relationships		
Child-teacher relationships		
Relationships between children		

You communicate with the child's teacher at your own initiative				
Teachers communicate with you				
You visit the school to get informed				
The school invites you to an event (e.g. school celebration, a book bazaar)				
You visit school during an event (e.g. school celebration, a book bazaar)				
The school invites parents to a scheduled parent information day				
You participate in a scheduled information day				
The school invites you to participate in the organisation of social events (e.g. school excursion, charity event)				
You participate in the organisation of social events (e.g. school excursion, charity event)				

10. To what extent do the following things happen with the parents of children with ASD?

	A little	To a mod. ext.	A lot
I enjoy discussions with the teacher			
I consider it important to get to know my child's teacher			
Teachers inform me about my child's difficulties			
I believe that the teacher wants to meet me			
I feel comfortable talking about my child with his/her teacher			
I take into serious consideration the teacher's views on my child's progress or/and behaviour			
I help my child at home with study			
I recognise my child's special educational needs			
I send material and I offer voluntary work at school			
I seek information about my child's problem during my free time			

11. School organisation

	I agree	I disagree	I am not sure
My child's school is organised in the field of management			
The teaching staff at my child's school do their best in providing teaching support for the children			
I completely trust the teacher's opinion as far as my child's daily behaviour at school is concerned			
School prepares children for their post-school integration into society			
My child trusts the teacher's opinion as far as daily progress in lessons is concerned			
I have not got time to go to my child's school in order to learn about his/her progress			

12. What are your usual feelings towards your children's parents?

	Yes	No
Respect		
Trust		
Anxiety		
Reserve, suspicion		
Negative mood		

Neutral, indifferent feelings		
Other		

13. Which factors influence your child's progress at school?

	Yes	No
Parental support in study at home		
Child-parent relationships		
Parent-teacher relationships		
Child-teacher relationships		
Relationships between children		