

# Autism

<http://aut.sagepub.com>

---

## **Greek Teachers' Perceptions of Autism and Implications for Educational Practice: A Preliminary Analysis**

Sophia Mavropoulou and Susana Padeliadu

*Autism* 2000; 4; 173

DOI: 10.1177/1362361300004002005

The online version of this article can be found at:  
<http://aut.sagepub.com/cgi/content/abstract/4/2/173>

---

Published by:



<http://www.sagepublications.com>

On behalf of:



The National Autistic Society

**Additional services and information for *Autism* can be found at:**

**Email Alerts:** <http://aut.sagepub.com/cgi/alerts>

**Subscriptions:** <http://aut.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.co.uk/journalsPermissions.nav>

**Citations** <http://aut.sagepub.com/cgi/content/refs/4/2/173>

# Greek teachers' perceptions of autism and implications for educational practice

*A preliminary analysis*

SOPHIA MAVROPOULOU *Aristotelio University of Thessaloniki, Greece*

SUSANA PADELIADU *Aristotelio University of Thessaloniki, Greece*

KEYWORDS  
autism;  
in-service  
training;  
perceptions;  
teachers

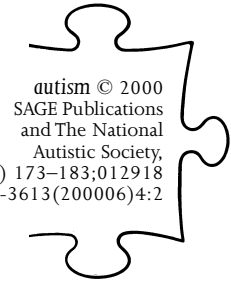
**ABSTRACT** The general aim of this study was to examine perceptions about autism in regular education ( $n = 35$ ) and special education ( $n = 29$ ) teachers attending the second year of their in-service training. Data were collected through a series of written questions covering four areas of interest (general information, aetiology, behavioural characteristics, treatment). The analysis of findings revealed some confusion in regard to the causes of the syndrome in both groups of teachers. However, special education teachers were more likely to identify correctly the specific characteristics of autism. Regular and special education teachers also identified different instructional priorities in the treatment of autism. The practical implications of these findings for in-service training are discussed.

**ADDRESS** Correspondence should be addressed to: DR SOPHIA MAVROPOULOU, In-Service Training Institution 'Dimitris Glinos', Department of Elementary Education, Aristotelio University of Thessaloniki, Thessaloniki 54 006, Greece

## Introduction

The 'triad of impairments' (Wing and Gould, 1979; American Psychiatric Association, 1994) associated with autism covers a range of behaviours and special education teachers may well have little understanding of the complexity of the condition. Nevertheless, they may be required to teach children with autism (particularly those who are higher functioning) either as part of the development of inclusion (Vizziello et al., 1994; Mesibov and Shea, 1996) or because of the lack of appropriate placements (as is the case in Greece).

It is well established that teachers' expectations about students with learning disabilities will affect their instructional goals and methods (Padeliadu et al., 1998) and understanding of the core deficit of autism is



also likely to have an impact on educational practice (Powell and Jordan, 1992). However, Stone and Rosenbaum (1998) found that many teachers considered autism to be an affective disorder with emotional aetiology, and they also had difficulty in differentiating between autism and childhood schizophrenia.

With the exception of Stone and Rosenbaum's study, and that of Szatmari et al. (1994), there has been relatively little research on teachers' perceptions of autism and how these may be associated with their beliefs on the effectiveness of special education and the instructional goals of their practice. We attempted to investigate this issue amongst teachers attending an in-service training course. The main objective of the study was to examine teachers' knowledge of autism. The specific research aims were:

- 1 to examine regular and special teachers' knowledge of the causes of autism and the main behavioural features of the disorder
- 2 to explore teachers' views on the goals of treatment for autism
- 3 to explore possible differences between the two groups of teachers in their perceptions of the above issues.

## Methods

### Participants

All teachers were in the third term of their 2 years of in-service training at the Institute 'Dimitris Glinos' of the Aristotelio University of Thessaloniki. They came from across Greece and all had a minimum of 5 years' teaching experience. Entry to the course is dependent on successful entry examinations at a national level. Teachers can opt to attend either the regular or the special education department. The questionnaire was administered to all teachers (regular and special) attending the in-service training at that time. It was completed by 35 out of 124 (28.2 percent) regular education and 29 out of 58 (50 percent) special education teachers. Special education teachers had attended an introductory module on autism (20 hours), which focused on issues of diagnosis and educational treatment, in their first term. Regular teachers did not have this training. None of the teachers in the special education group had any special experience or training prior to the in-service training. The average age of regular education teachers was 34.08 years and the average age of special education teachers was 34.55 years ( $t = -0.21$ ,  $d.f. = 62$ ,  $n.s.$ ). The average teaching experience of regular education teachers was 13.11 years and the average teaching experience of special education teachers was 11.75 years. There were no significant differences between the two groups of teachers on their teaching experience ( $t = 1.12$ ,  $d.f. = 62$ ,  $n.s.$ ).

## **Instrument**

The questionnaire used was based on previous research (Stone and Rosenbaum, 1988; Szatmari et al., 1994) as well as existing literature on autism (see Appendix). Item 1 focused on the aetiology of the syndrome and respondents were asked to rank order five factors as possible causes of autism (1 representing the most significant cause and 5 the least significant cause). Items 2, 3, 4, 5, 6, 7 referred to general knowledge about autism and teachers had to select only one from a choice of answers. The third part (item 8) addressed the behavioural characteristics of autism (drawn from DSM-IV and Wing, 1996). Teachers were required to select as many of the 22 statements describing various aspects of autism as they wished. The last part (items 9, 10a, 10b, 11, 12, 13) dealt with teachers' views on the treatment of the disorder. This was developed from the literature on special education for all children with special needs, as well as specifically for those with autism. Teachers were asked to describe their views on the effectiveness of psychotherapy and special education, as well as the effectiveness of integration of children with autism. The contribution of special education in the treatment of autism was further investigated through the selection from ten statements referring to the instructional goals for these children.

## **Procedure**

The questionnaire was distributed to all teachers in a classroom before a teaching session in the beginning of their second year of in-service training. They were asked to complete it within 30 minutes and return it to the researcher.

## **Results**

### **General knowledge on autism**

The majority of teachers in both groups stated, correctly, that autism is more common in boys; the disorder is not always accompanied by mental retardation; it is not an early form of schizophrenia; and it is not linked with a high mortality rate (Table 1). However, there was more confusion with regard to the age of onset of the condition. Around one-half of regular education (51.4 percent) and special education (55 percent) teachers suggested that autism is not fully developed until after the age of 3. The remainder of regular education (45.7 percent) and special education (44.8 percent) teachers indicated that it is fully developed before this age.

### **Causes of autism**

Analysis (using Mann–Whitney U-tests) of teachers' rankings for each of

**Table 1** Teachers' perceptions on general knowledge of autism (questions 3, 5, 6, 7)

	<i>Regular</i> ( <i>n</i> = 35) no. (%)	<i>Special</i> ( <i>n</i> = 29) no. (%)
More common in boys	31 (88.6)	28 (96.5)
Not always associated with mental retardation	25 (71.4)	26 (89.6)
Not an early form of schizophrenia	31 (88.6)	26 (89.6)
No excess mortality rate	21 (60)	22 (75.8)

the five possible causes of autism (brain damage, lack of maternal responsiveness, social causes, heredity and 'other') revealed no significant group differences. However, although the majority of teachers recognized brain dysfunction and genetics as playing major roles, many also viewed mother negligence of the child as important. Social circumstances (e.g. poverty) were excluded as causal factors by all teachers.

### Characteristics of autism

Both groups of teachers perceived the following characteristics (in order) as the least significant features of children with autism: 'has sleeping problems', 'has problems in his eating routine' and 'has hearing problems' (see Table 2 and Appendix). However, although these behaviours are not specific to autism, they are in fact very common and can create serious management problems. It was encouraging that very few teachers viewed hallucinations as a significant symptom. Teachers in both groups agreed that a child with autism primarily 'does not seek the company of others', 'seems distant', 'does not seek physical contact with others', 'does not make eye contact', 'has violent temper tantrums' and 'makes clumsy movements'. Special education teachers were more likely to state that a child with autism 'does not understand the feelings of others' ( $\chi^2 = 27.87, p < 0.001$ ), 'engages in stereotypical activity' ( $\chi^2 = 24.04, p < 0.001$ ), 'avoids changes in his daily routine' ( $\chi^2 = 21.26, p < 0.001$ ), 'wants to keep his environment the same' ( $\chi^2 = 8.59, p < 0.01$ ) and 'does not have feelings' ( $\chi^2 = 8.08, p = 0.01$ ).

### Treatment of autism

The majority of teachers in both groups (80 percent of regular education teachers and 100 percent of special education teachers) agreed that autism cannot be cured. However, they thought that psychotherapy (57 percent of regular education teachers and 83 percent of special education teachers) as

**Table 2** Teachers' perceptions on the characteristics of autism (question 8)

Features	Question 8 statement numbers	Regular (n = 35) no. %	Special (n = 29) no. %	Chi-square <sup>a</sup>
Distance	19	27 (77.1)	28 (96.5)	24.04, <i>p</i> < 0.001
Stereotypies	22	10 (28.5)	26 (89.6)	
Company of others	3	28 (80.0)	25 (86.2)	
Routine	18	10 (28.5)	25 (86.2)	
Empathy	11	7 (20.0)	25 (86.2)	21.26, <i>p</i> < 0.001
Physical contact	4	18 (51.4)	20 (68.9)	27.87, <i>p</i> < 0.001
Temper tantrums	2	14 (40.0)	19 (65.5)	
Clumsy movements	8	11 (31.4)	18 (62.0)	
Sameness	17	9 (25.7)	18 (62.0)	
Eye contact	9	15 (42.8)	15 (51.7)	8.59, <i>p</i> < 0.01
Over-reactions	13	8 (22.8)	9 (31.0)	
Attachments	10	6 (17.1)	8 (27.5)	
Speech	12	14 (40.0)	7 (24.1)	
Self-care skills	14	12 (34.2)	7 (24.1)	8.08, <i>p</i> = 0.01
Feelings	20	1 (2.8)	7 (24.1)	
Appearance/health	16	7 (20.0)	7 (24.1)	
Obsessions	21	6 (17.1)	7 (24.1)	
Play with objects	5	10 (28.5)	2 (6.8)	
Hallucinations	15	1 (2.8)	2 (6.8)	
Eating problems	7	1 (2.8)	1 (3.4)	
Hearing problems	1	4 (11.4)	0	
Sleep problems	6	4 (11.4)	0	

<sup>a</sup> Chi-square and *p*-values are given only for significant group differences.

well as special education (60 per cent of regular education teachers and 90 per cent of special education teachers) can be effective in the treatment of autism. Over half of the regular education teachers (55 per cent) and just over a third of special education teachers (37 per cent) were positive to the idea of integration.

As far as the instructional priorities for children with autism were concerned, regular education teachers promoted mostly 'develop affective relationships with others', 'play with other children', 'get a relief from anxiety and emotional tension', 'develop basic self-care skills' and 'understand the feelings of others' (Table 3). The special education group placed greater emphasis on 'the reduction of his tendency to self-injury', 'expression of desires using speech', 'reduction of his repetitive activities', 'development of basic self-care skills', 'reading and writing' as well as 'playing with other children'. The highest significance was for 'the development of affective relationships with others' ( $\chi^2 = 16.49$ , *p* < 0.001), which was more valued by regular teachers. Special education teachers differed significantly

**Table 3** Teachers' perceptions on the instructional objectives for children with autism (question 12)

Targets, with question 12 numbers	Regular (n = 35) no. (%)	Special (n = 29) no. (%)	Chi-square
1 Reading/writing	11 (31.4)	19 (65.5)	7.40, $p = 0.01$
2 Emotional development	32 (91.4)	13 (44.8)	16.49, $p < 0.001$
3 Expression of desires	14 (40.0)	23 (79.3)	10.04, $p = 0.01$
4 Emotional understanding	18 (51.4)	11 (37.9)	
5 Social play	25 (71.4)	19 (65.5)	
6 Stereotypies	11 (31.4)	22 (75.8)	12.53, $p = 0.001$
7 Self-injury	16 (45.7)	23 (79.3)	7.52, $p = 0.01$
8 Independence	11 (31.4)	12 (41.3)	
9 Self-care skills	18 (51.4)	22 (75.8)	
10 Anxiety relief	24 (68.5)	14 (48.2)	

from regular education teachers in their ratings of the following educational goals: 'reduction of his repetitive activities' ( $\chi^2 = 12.53$ ,  $p = 0.001$ ), 'expression of desires using speech' ( $\chi^2 = 10.04$ ,  $p = 0.01$ ), 'reduction of his tendency to self-injury' ( $\chi^2 = 7.52$ ,  $p = 0.01$ ) and 'reading and writing' ( $\chi^2 = 7.40$ ,  $p = 0.01$ ).

## Discussion

Teachers in both groups agreed on the excess of autism in boys over girls (Wing, 1996; Wing and Gould, 1979), and their perceptions that autism is not always accompanied by mental retardation and is not a form of psychosis were consistent with the literature (Rutter and Schopler, 1987). These findings indicate that the teachers were familiar with the notion of the 'autistic continuum' and the distinct identity of autism.

However, in their answers about causes it was apparent that the psychogenic myth still persisted amongst some teachers in both groups (also Stone and Rosenbaum, 1988). The psychogenic explanation of autism is still accredited by clinicians with a psychoanalytic orientation (Tustin, 1981) and misinformed professionals may continue to support this untenable view. This in turn may have implications for the treatment of autism. Teachers believing that the condition is due to the parent-child relationship may consider, as their instructional priorities, emotional health, release from anxiety and social play (as indicated in the responses of regular education teachers). They may also consider psychotherapy to be beneficial.

With regard to the educational goals, there was a consistency between teachers' views and perceived behavioural symptoms of children with

autism. Regular education teachers seemed more concerned with the social and psychological well-being of the autistic child, and they perceived the role of the school as one of comforting, making happy, sociable and warm. Further, presumably related to their view that children with autism cannot care for themselves, they promoted self-care activities as well. Although these perceptions are emotionally positive, they may be less efficient for the educational needs of children with autism, and they may underestimate the capabilities of children and the skills they can acquire if taught appropriately.

Special education teachers in contrast seemed to have a deeper knowledge of autism, as they selected autism-specific characteristics and provided a fuller description of the disorder. They were also more goal-oriented, promoting instruction in all the major areas in which children with autism experience problems. In particular, they promoted interventions which focus on challenging aspects of behaviour that may hinder their successful learning. They also viewed special education as a step towards independence. Although they acknowledged the importance of reading/writing and social play, these were viewed as secondary goals. These responses suggest that the introductory module on autism which was followed by these teachers was successful in promoting their knowledge and understanding of the condition. The module, although brief, focused on a detailed account of autistic spectrum disorders and drew attention to the special educational needs of children with autism. However, their views regarding the appropriate instructional goals represent a rather partial instructional plan, since these emphasized the treatment of behavioural and communication problems over academic and social difficulties.

## Implications

Despite the small number of teachers involved, and the low rates of return, the findings of this study indicate the need for in-service training related to autism for all teachers, whether in special needs or regular education. In-service training should focus on autism-specific characteristics, revealing both the homogeneity and diversity among students within the autistic spectrum. Teachers should also have the opportunity to understand the various factors contributing to the needs of each individual child with autism. A thorough knowledge and understanding of each child's situation will lead teachers away from the notion of a blueprint for autism and should promote recognition of individualized educational programmes. Regular education teachers need to be provided with guidance and some skills training in order to meet the needs and develop the capabilities of students with autism and to be able to accommodate those needs within the regular education realm. Especially for those high-functioning students



with autism in mainstream settings, lack of appreciation of their cognitive abilities and needs may have significant deleterious effects on their development, both intellectual and emotional. These findings suggest that even a module of 20 hours with general but scientific information can promote a more realistic perception of autism. In regard to special education training, the findings suggest that as well as a focus on knowledge and skills, the emotional needs of students with special educational needs should perhaps be given more emphasis. It is time now to focus our attention on the 'whole' child and to address their needs as well as to encourage learning and to reduce behavioural problems.

### **Acknowledgements**

This article was first presented at the International Conference on Developmental/Intellectual Disabilities 'Bridging the Continents', Cyprus 27–9 March 1998.

### **Appendix**

#### **Questionnaire on autism**

*Demographical information*

Gender: a male    b female

Age:

Placement: a regular education    b special education

Teaching experience (in years):

a special school:

b special class:

c ordinary school:

#### *Questions*

The following questions are aimed to explore teachers' perceptions and attitudes towards persons with autism. The answers are not evaluated as right or wrong.

Circle letters or numbers as appropriate.

Thank you very much for responding.

- 1 Which of the following factors do you think are the main causes of autism?  
(rank order the factors using 1 for most significant cause and 5 for least significant cause)

- ... brain damage
  - ... lack of mother's emotional response to the child's needs
  - ... social causes (e.g. poverty, lack of resources at home)
  - ... heredity
  - ... other factor (specify):
- 2 The diagnosis of autism can be carried out mainly with:
    - a neurological examination
    - b psychiatric examination of the child's behaviour
  - 3 The autistic disorder occurs more often in:
    - a boys
    - b girls
  - 4 The age of full presence of autism in a child is:
    - a from birth up to the end of the first year
    - b from the second up to the third year
    - c from the third year onwards
  - 5 The autistic disorder is accompanied by mental retardation:
    - a yes
    - b no
  - 6 Autism is an early form of schizophrenia:
    - a yes
    - b no
  - 7 Persons with autism have a greater tendency to die as a result of their disorder:
    - a yes
    - b no
  - 8 According to your view, which are the characteristics of a child with autism?  
(you can circle more than one statement)
    - 1 has hearing problems
    - 2 has temper tantrums
    - 3 does not seek the company of others
    - 4 does not seek physical contact with others
    - 5 does not play with objects
    - 6 has sleeping problems
    - 7 has problems in his/her eating routine
    - 8 makes clumsy movements
    - 9 does not make eye contact
    - 10 does not get attached to a person
    - 11 does not understand the feelings of others

AUTISM 4(2)

- 12 does not develop speech
  - 13 overreacts to noise
  - 14 does not have self-care skills
  - 15 has hallucinations
  - 16 presents problems in his physical appearance and health
  - 17 wants to keep his environment the same
  - 18 avoids changes in his daily routine
  - 19 seems distant
  - 20 does not have feelings
  - 21 has obsessions
  - 22 engages in stereotypical activity
- 9 The autistic disorder is a condition that can be fully cured:
- a yes
  - b no
- 10a Explain to what extent psychotherapy is effective for the treatment of a person with autism.
- 10b Explain to what extent special education is effective for the treatment of a person with autism.
- 11 Do you believe that it is possible to integrate a child with autism in a class with normal children?
- a no
  - b yes
  - c If yes, describe the conditions under which this is feasible.
- 12 Special education can help a child with autism to:  
(you can circle more than one statement)
- 1 read and write
  - 2 develop affective relationships with others
  - 3 express his/her desires using speech
  - 4 understand the feelings of others
  - 5 play with other children
  - 6 reduce his/her repetitive activities
  - 7 reduce his/her tendency to self-injury
  - 8 complete an activity independently
  - 9 develop basic self-care skills
  - 10 get a relief from anxiety and emotional tension
- 13 The most appropriate treatment for a child with autism is education within an institution:
- a yes
  - b no

## References

- AMERICAN PSYCHIATRIC ASSOCIATION (1994) *Diagnostic and Statistical Manual of Mental Disorders*, 4th edn. Washington, DC: APA.
- MESIBOV, G. & SHEA, V. (1996) 'Full Inclusion and Students with Autism', *Journal of Autism and Developmental Disorders* 26: 337–46.
- PADELIADU, S., CHATZOPOULOS, G. & KAVVADA, E. (1998) 'Teachers' Stereotypes Regarding the Learning Abilities of Students with Mental Retardation', paper presented at the International Conference on Developmental/Intellectual Disabilities 'Bridging the Continents', Larnaca, Cyprus, 27–9 March.
- POWELL, S. & JORDAN, R. (1992) 'Remediating the Thinking of Pupils with Autism: Principles into Practice', *Journal of Autism and Developmental Disorders* 22: 413–18.
- RUTTER, M. & SCHOPLER, E. (1987) 'Autism and Pervasive Developmental Disorders: Concepts and Diagnostic Issues', *Journal of Autism and Developmental Disorders* 17: 159–86.
- STONE, W. & ROSENBAUM, J. (1998) 'A Comparison of Teacher and Parent Views of Autism', *Journal of Autism and Developmental Disorders* 18: 403–14.
- SZATMARI, P., ARCHER, L., FISMAN, S. & STREINER, D.L. (1994) 'Parent and Teacher Agreement in the Assessment of Pervasive Developmental Disorders', *Journal of Autism and Developmental Disorders* 24: 703–17.
- TUSTIN, F. (1981) *Autistic States in Children*. London: Routledge & Kegan Paul.
- VIZZIELLO, G.F., BET, M. & SANDONA, G. (1994) 'How Classmates Interact with an Autistic Child in a Mainstream Class', *European Journal of Special Needs Education* 9: 246–74.
- WING, L. (1996) *The Autistic Spectrum: A Guide for Parents and Professionals*. London: Constable.
- WING, L. & GOULD, J. (1979) 'Severe Impairments of Social Interaction and Associated Abnormalities in Children: Epidemiology and Classification', *Journal of Autism and Developmental Disorders* 9: 11–29.