

The Effectiveness of a Parent Education Programme Offered Through Distance Education About Independent Autistic Children Education Centre (IACEC)

Gamze YUCEL M.A.
Atilla CAVKAYTAR Ph.D.

Anadolu University
Egitim Fakultesi
Ozel Egitim Bolumu
Eskisehir, Turkey

ABSTRACT

The purpose of this study was to determine the effectiveness of a parent education program on parents' awareness about the Independent Autistic Children Education Centre (ACEC: in Turkish OCEM). The program was offered through a distance education program. Participants of the study included parents of 72 children with autism who were receiving education in one of the ACEC in Istanbul. The study was carried out during 2005-2006 school year. The research study was experimental including a pre and a post-test to determine the effectiveness of the program. The Parent Education Program included five VCDs, each of which incorporated about 20 minute-presentation on various topics about Autism and the ACEC, and five handbooks. Participants in experimental and control groups were randomly assigned. The experimental group took a five-week training while the control group did not receive any training. Data were gathered by ACEC Knowledge Test developed by the researchers. The results indicated that significant differences were found between pre- and post-test scores of the experimental group. The findings showed that parent education programme offered through the distance education about Independent Autistic Children Education Centre was significantly effective.

Keywords: Autism, School for Autism, Distance Education, Parent Training, Parent Education, Family Education.

BACKGROUND

Autism Spectrum Disorder is defined in the DSM-IV-TR under the category of Pervasive Developmental Disorders along with four other disorders: Asperger syndrome, Rett's syndrome, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified (Dahle, 2003). According to the DSM-IV-TR autism is characterized showing significant impairments in social interaction and communication, as well as demonstrating restricted repertoires of behavior (American Psychiatric Association, 2000). The characteristics of all children with autism are different from each other as seen both in legal descriptions and descriptions of autism on DSM-IV-TR. Children with autism are evaluated from the most serious to the slightest because of different features of development from each other.

In Turkey, the education of children with autism has received increasing attention in the last a few years. Provincial education committees of guidance research centers are responsible for the pedagogical diagnosis and placement of children with autism to the special education institutions (MEB, 2006).

Children diagnosed with autism have been educated in various training environments in Turkey such as Dependent Autistic Children Education Centre (DACEC), Independent Autistic Children Education Centre (IACEC: in Turkish OCEM) and inclusive classrooms. ACE centers were founded with a purpose of improving independent life skills for children with autism between the ages of 3–15 who are not able to benefit from the inclusive education because of their disabilities. In addition, parent trainings have been provided to promote and improve the independent life skills of children with autism.

In research literature, Dahle (2003) reviewed the clinical and educational systems for the identification and placement procedures for children with autism. Dahle concluded that even though each child coming to these centers or schools with a medical diagnosis of autism, various tests are given according to the autism criteria. When school professionals complete their testing process, they inform the parents that their child has autism. However, they do not provide any detailed information about the autism. The child is settled by the school to the least restricted environment. During the placement, the parents are not always informed and included into this process. On the other hand, parents usually have questions about interventions, specific results of the evaluations, necessity of second opinions and the support and advocate groups for them. Because of the lack information provided from the schools, they never find complete answers to their concerns and questions. At this point, parents need to know about such matters as child's characteristics, evaluation of these characteristics, the school in which the child is placed, and the school's curricular programme about the child.

As for Turkey, arrangements towards family training have been prepared according to 573 Special Education Act. With this law, it became obligatory that the parents of children with autism should take part in the education of their children. It was also stated the necessity of parent training programmes. Parent training programmes can be in the forms of home-centered, school-centered, home and school-centered and distance learning. Generally, the aim of a parent training programme, which is systematic and conceptual, is to acquaint parents with different aspects of parenting skills (Cavkaytar 1999).

Many families who are geographically away from these centers are unable to access specialized services for their children and the parent training programmes (Koegel, Symon & Koegel, 2002). But even so, there is an obligation for parents to come to the education centers at specific times. For these parents living away from the centers or having problem with participating to the programmes for other reasons distance learning have been considered as a suitable solution.

Distance learning can be described as a technique developed with the help of communication technology and at the extended of educational technology against to the inefficiency of traditional education systems. Overall aims of the distance learning are to help individual to catch the opportunities of educational world again, to have a better life, to reach more information in a shorter time, to meet requirements of educational life.

They focus on the effectiveness in education and developing economically affordable options. Individual in connection with the institution in various levels and situations on distance learning systems is face to face with pressed materials basic synthesizes of institution and radio, television, video, computer and other visual-auditory electronic communication channels supporting these pressed materials (Demiray, Candemir, & Inceelli, 2002). It has become compulsory to use modern and technological supplies in order that distance learning will be able to realize its function exactly (Demiray, 1995).

In the literature it has been suggested that professional development programmes for educators of children with special needs by using the distance learning (Cavkaytar, 2006; Miller, Smith & Tilstone, 1998; Ryan, 1999; Sack, McLean, 1997; Wood, Miller & Test, 1998; Zahn & Buchanan, 2002).

Processes of distance learning have been able to be used for training of parents with disabled child via such techniques as video, conferences or lectures. Rule, Salzberg, Higbee, Menlove and Smith (2006) have pointed that they learn about technological components that can mediate consultation. In Turkey, researches on parent training with distance learning approach, devoted to parents with a disabled child, is rather limited. In field research with practice of Unlu (1987), whose study aimed at improving programme pattern, of which subject matter is to train parents with disabled child with distance learning. In 1985, he dealt with parents with disabled children between 0 and 12 in Eskisehir. By benefiting from distance learning processes including television, radio, pressed material and face to face learning. There have been worked on communication skills with parents. The findings of the survey have shown that applied distance learning programmes have had positive contribution to parent training.

STATEMENT OF THE PROBLEM

In Turkey, research studies investigating the needs of parents with autistic children, show that more than half of parents need information (Evcimen, 1996; Sucuoglu, 1995), and they firstly want to have information over the institutions their children benefit or will be able benefit soon (Mert, 1997). In addition, according to another research, it has been learned that parents with disabled children have not known the schools where their children are educated and also found out that they have not considered enough about the services the school provided. Led to Education Center of Autistic Children, parents with an autistic child will benefit from the services best and support their children education programme as long as they are aware of these services provided at the centers.

When we have a look at application forms of parent training programmes related to meet the requirements for information of the parents in various fields in Turkey, face to face pair work or group work has been made with the parents, either parents have studied with the experts at the atmosphere at the school itself or home conditions in all of the studies.

That's why, these studies have been restricted to the parents whose children are sent to the education centers or to the parents who have accessed to these education centers. Unfortunately, it can not be possible for the parents to get help from the parent training in most of the cities that have transportation problems, especially in big ones.

Regarded of those reasons, it's been compulsory to use various educational technologies in the parent training of parents with autistic children, just like in²⁵

the other fields of education programme. In our today's world, it can be said that the application forms of distance learning programmes has been a key to meet these requirements, with the technologies that has made a long way and using technological equipments such as VCD player in almost every house.

Parent training programmes, which inform parents with children with autism about IACEC and the services provided by the IACEC, have not been seen in Turkey. Besides, there is no research based on distance learning or dealing with the requirements of the parents about the IACEC. With the consideration that it would be easy to reach more parents, presenting with distance learning periods based on parent training programmes, such kind of research has been needed.

The purpose of the study is to clarify the organization of the parent training programme based on distance learning programme about IACEC. To reach this purpose, the search below has been worked out: The knowledge level of the parents about the Independent IACEC, trained on the parent training programme based on distance learning programme, is much higher than the ones not trained.

METHOD

Design

The research has been designed as a quasi-experimental study with a randomly assigned control group and pre-test and post-tests to determine parents' awareness before and after the programme about the IACEC. The dependent variable of the research is the data levels of the parents about the IACEC and the independent variable is the parent training programme based on acquainting parents with IACEC.

Participants

The study group of research included parents whose children attended to an independent IACEC in 2005-2006 education year in Istanbul. In the IACEC, the research was carried on 120 students had been educated in 2005–2006. In order to determine the participants, volunteer to participate in the research, information form was sent to the parents of 120 students and being asked whether they would attend or not to that study. Seventy-two became volunteers to attend the programme. Then, experimental groups and control groups were formed randomly. As a result, there were 34 mothers, a father, and a parent as participants in experimental group. As for control group, there were 26 mothers, 4 fathers, 6 parents as participants. When education levels of participants in both experimental and control groups are examined, % 34.3 of mothers in experimental group and %50 of mothers in control group are graduates from primary school. Participants' age in experimental group ranged from 29 to 59 with a mean of 36.5 (SD: 5.6) in experimental group and from 29 to 53 with a mean of 39.1 (SD: 6.7). The participants in experimental group had children with autism, aged ranged from 6 to 20, with a mean of 10.7 (SD: 2.8). Age range of children with autism of parents in control group was between 7 and 20, with a mean 12.4 (SD: 3.3).

Data collection

To get answers for the questions of research, it has been needed for data related to some characteristics of parents and children and also knowledge levels of parents about IACEC before and after the programme. For data on parents and child, these have been gathered via "Parent Info Form" from parents. Knowledge levels of parents about IACEC, before and after the programme, have been determined by "Knowledge Test".

Parent Info Form is a kind of expressive form which involves such info as the names of parents, their ages, the school they graduated from, their occupations, and such info belonging to the child as age, gender, number of brother or sister. Its goal is to assist researcher to become more acquainted with the parent.

"Knowledge Test" is a test used for measuring the knowledge levels of parents about info on IACEC before and after the programme. "Knowledge Test" has been formed of 40 multiple choices in total and 8 multiple choices for each part of education programme.

Each question on "Knowledge Test" has been graded as 2.5 points. After introducing himself/herself, the researcher has read the instruction loudly and given 30 minutes to the parents for answering the questions.

The reliability of "Knowledge Test" used in research has been designated by calculating internal coherent of co efficiency of cronbach alpha. In relation with this, the reliability of co-efficiency of the pre-test of "Knowledge Test" has been found as 0.78 and the control test has had 0.67 for the reliability of co efficiency.

Parent Training Programme

Parent training programme is about acquainting parents with autistic child on IACEC. Since this programme has been applied with dependent on distance learning, teaching-learning processes are video records used as informative handbook and materials of distance learning.

Informative handbook is a written source that contains info suitable for planned aims in the programme and participants will be able to reach the info related to the topic every time they want. Handbook is composed of 5 parts. Informative handbook has been prepared in form of the programme and includes the details of the subjects explained on VCD. Thus, in the first part of the book, there is autism and characteristics of autistic children, the necessity of education for children with autism and in the second and third parts, there are features of IACEC. In the third part, there is diagnosis of children with autism over acceptance to IACEC, placement, process, passing the class and the conditions for graduation. And lastly, in the fifth part, education programme for autistic children, its content, its application, and explanation on education environment.

Video records are visual sources, which present the info and visuals related to the subjects formed through the aims of the programme in a way with illustrating so that parents can understand. Video records have been formed with working on the subjects of the handbook in a video environment. PTP have been supported with phone calls. The goals of these phone calls generally are to learn about parents' opinions, check whether the series of distance learning can reach or not, check the reaching of evaluation questions to the researcher and answer to the questions of parents if there is any.

PTP has been evaluated with the evaluation questions of related part sent with VCD 8 video records) and handbook to parents. Questions on evaluation of part, have been prepared with the aim of evaluating the subjects weekly, putting the studies of parent in an order, and not used as research data. Evaluation questions of parts, different from the questions on application of pre-test and post-test, have true-false questions including 8 for each part and 40 in total.

Procedure

Testing procedure for parents experimental and control groups has started with announcements of letter and call informing them to have session on pre-test evaluation and the presentation of PTP. On date, place and time stated with announcement, a meeting has taken with experimental group.

In the meeting, firstly it has been explained about the aim of PTP, its content and how it will be applied and then pre-test has been given. Meeting on pre-test of control group has been realized at the same time and in the place on the following day. Series of books for distance learning, prepared after applications of pre-test for each parent, have been delivered to parent through service officials on stated date.

During that period, it has been controlled that whether they have been delivered or not by calling parents, and if not, a new ones have been sent again. At the same time, questions of parents about the application have been answered. Application has been realized by sending distance learning series of books, in which there are weekly parts and evaluation questions related to each part.

At the weekend, on the related part has been sent, answers for that part have been gathered and at the same time, the following series of books for distance learning have been sent.

On the day, when part 5 has been sent to parents working in experimental group, an announcement about post-test they will have has been reached to all the participants. With taking consideration of any misunderstanding, all the participants of experimental group and control group have been called to confirm the date, time, and place stated for post-test and session of evaluation.

FINDINGS

At the end of PTP, to determine whether there is difference or not between scores, parents in experimental group, got from pre-test and post-test of knowledge test of IACEC and scores, parents in control group, got from pre-test and post-test of knowledge test on IACEC, scores of parents in each group have been compared with each other Independent t-test. The findings related to average scores (scores of knowledge test on IACEC before the experimental) have been provided in Table: 1.

Table: 1
Experimental and Control groups' scores on the pre-test of IACEC

Groups	n	M	SD	Df	t	p
Experimental	36	46.04	14.26	35	4.24	0.00*
Control	36	33.81	11.34			

*p< .05

As seen the results of independent-samples t-test in Table: 1, there has been a significant difference between scores of both groups in pre-tests. The average scores, parents in experimental group have, on knowledge test of IACEC before application was 46.04. And the average scores parents in control group have on knowledge test of IACEC before application was 33.81.

Both two groups have scores below 50 from the knowledge test of IACEC before the experimental, which indicated that they did not have sufficient information. Informative PTP over IACEC has been carried out after pre-test application of knowledge test of IACEC. At the end of the programme, the findings related to the changes on info levels of experimental group have been provided in Table: 2.

Table: 2
Experimental group's scores on the pre-test and post-test of IACEC

Tests	n	M	SD	Df	t	p
Pre-test	36	46.04	2.37	35	15.01	0.00*
Post-test	36	80.55	1.64			

***p < 0.05**

As seen the results of paired-samples t-test in Table: 2, a meaningful difference has statistically been found between pre-test and post-test of participants in experimental group. While the average of scores gotten from knowledge test on IACEC before application was 46.04, it was 80.55 as post-test mean score. That means that there has been a meaningful increase in info levels of participants in experimental group on AEC after they have completed the informative PTP programme about IACEC. In Table: 3, the results of pre-test and post-test of control group not having taken any kind of application.

Table: 3
Control group's scores on the pre-test and post-test of IACEC

Tests	n	M	SD	Df	t	p
Pre-test	36	33.81	11.34	35	2.96	0.05*
Post-test	36	30.97	10.50			

***p < 0.05**

As seen the results of paired-samples t-test in Table: 3, there has been a meaningful difference between scores control group got from pre-test and post-test. The average of scores they got from knowledge test of IACEC before application has been found as 33.81, after application it has been found 30.97. That shows that there is not any progress in the results of post-test participants got in control group.

Table: 4
Experimental and Control groups' divergence scores on the pre-test and post-test of IACEC

Groups	n	M	SD	Df	t	p
Experimental	36	34.51	13.79	70	14.99	0.00*
Control	36	-2.84	5.76			

***p < 0.05**

For distinguishing scores of pre and post tests, experimental and control group got from the knowledge test of IACEC, the results of t-test have been given in Table: 4. As seen the results of independent-samples t-test in Table: 4, there has statistically been a meaningful difference between divergence scores of experimental and control groups. It can be understood that the divergence scores for experimental group ($M=34.51$) got from knowledge test of IACEC, are statistically more positive than control group's ($M= -2.84$). In respect of these results, it shows that changes observed on scores of knowledge test of IACEC are related with PTP.

DISCUSSION

Data showed that Parent Training Programme based on distance learning about IACEC that has been applied to the experimental group has provided a meaningful increase on the knowledge levels of parents on the IACEC. In addition, the results showed that there was not a progress of the knowledge levels of control group according to the pre and post test scores. The averages of divergence scores of experimental group and control group have a meaningful difference.

This result indicates that parents with an autistic child can become dependent on the distance learning based PTP on the IACEC. In the field work, data of researches, carried out via distance learning aiming at acquaint parents with an autistic child. They have not been met. Even so, there are researches which carry out distance learning, include informative consultancy, and parent training as separate subjects and also work with various groups of children with disabilities. With the outcome of PTP, Unlu (1986) prepared for parents with deaf children through the pressed material, radio, and TV programmes, it has been observed that the training programme with distance learning processes have parents train with the techniques of distance learning and it has a positive influence on parent training. The data gathered during this research supports the idea that parents can be trained with by the techniques of distance learning.

The results of a research, in which Bocu (1992) examined the effect of informative consultancy over the anxiety level of mothers with a child having a paralyzed brain, state that informative consultancy does not cause a meaningful difference upon anxiety level. Yet they state that mothers are more conscious, so informative consultancy is useful for mothers to accept their children and to provide social support. With the outcome of informative PTP applied in this research, it can be said that parents has become more conscious about the school which their children attend to. Oral feedback given by members of parents attended to PTP supports the outcome. Most of the family members stated that they have been acquainted with the services provided in the IACEC and have become more conscious of the school. This feedback could be the indicators of the pleasure of parents getting from the programme. According to the research data, suggestions can be made on application and following researches. Towards the application, PTP that will be applied for meeting parents' needs on info could be realized with application of distance learning. Moreover, IACEC video records and handbooks used in research can be a guide for parents if they are given to the parents directed to Guidance Research Center with a diagnosed autistic child and parents directed to IACEC or parents whose children start to school.

This study includes only one Independent IACEC with only limited number of participants. Therefore, results should be interpreted by considering this limitation.

As to further studies, the effectiveness of improved PTP can be found out by conducting more studies upon more parents and more IACEC in different cities. Also after the programme on being informed about the school which their children attend to, studies searching the effect of the programme on anxiety levels of parents, their perception over school can be investigated. Besides, the effect of informative PTP, based on distance learning, can be explored by improving the schools where children within different groups of students with special needs.

BIODATA and CONTACT ADDRESSES of AUTHORS



Gamze YUCEL got her MS degree from the Department of Special Education at Anadolu University. She works in an independent Autistic Children Education Centre as a special education teacher in Istanbul.



Dr. Atilla **CAVKAYTAR** graduated from the Special Education Teacher Training Programme of Education Faculty at Anadolu University in 1987. Dr. Cavkaytar, then, received M.A. degree in 1990 and Ph.D. degree in 1997 on Special Education at Anadolu University. Dr. Cavkaytar is currently an Assistant Professor of Special Education working in the Teacher Training Programme in Education of Children with Mental Retardation in the Department of Special Education of Education Faculty at Anadolu University.

Gamze YUCEL M.A. and Asst. Prof. Atilla CAVKAYTAR
Anadolu University, Education Faculty
Department of Special Education, Eskisehir, TURKEY
Tel: 0 222 335 05 80/35 45
Email: acavkayt@anadolu.edu.tr

REFERENCES

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.-Text Revision), Washington, DC: Author.

Bocu, D. S. (1992). Bilgi verici danismanligin beyin felcli (serebral palsili) cocugu olan annelerin kaygi duzeylerine etkisi. [The effects of the informational counseling on the anxiety levels of mothers who have children with cerebral palsy]. Unpublished doctoral dissertation, Turkey: Ankara University.

Cavkaytar, A. (1999). *Zihin engellilere ozbakim ve ev ici becerilerinin ogretiminde bir aile egitimi programinin etkililigi* [Effectiveness of a parent training program for teaching self-care and domestic skills]. Eskisehir, Turkey: Anadolu University.

Cavkaytar, A. (2006). Teacher training on special education in Turkey, *The Turkish Online Journal of Educational Technology-TOJET*, 5(3).

Dahle, K. B. (2003). The clinical and educational systems: Differences and similarities *Focus on Autism & Other Developmental Disabilities*, (18)4, 238-246.

Demiray, U. (1995). *Ilkeleri, Isleyisleri ve Ornekleriyle Dunyada Acikogretim [Open education in the World with principles, process and samples]*. Eskisehir, Turkey: Turkuaz Pub.

Demiray, U., Candemir, O. & Inceelli, A. (2002). *Televizyonda Canli Yayin Ve Acikogretim. [Live Broadcast On Television And Open Education]*. Konya, Turkey: Cizgi Pub.

Evcimen, E. (1996). Zihin engelli cocugu olan ailelerin (anne babalarin) gereksinimlerinin belirlenmesi. [The determine of needs of family (mother and father) who have children with mental retardation]. Unpublished master thesis, Turkey: Anadolu University.

Koegel, R. L., Symon, J.B., Koegel, L. K. (2002). Parent education for families of children with autism living in geographically distant areas, *Journal of Positive Behavior Interventions*, 4(2), 88-103.

MEB. Ozel Egitim Hizmetleri Yonetmeligi [Special Education Regulations in Turkey] (26184) Resmi Gazete. 31.5.2006.

Mert, E. (1997). Farkli Engel Grubunda Cocugu Olan Anne ve Babalarin Gereksinimlerinin Karsilastirilmesi [Compare of mothers' and fathers' needs on different disability types]. Unpublished master thesis, Turkey: Abant Izzet Baysal University.

Miller, C., Smith, C. & Tilstone, C. (1998). Professional development by distance education: Does distance lend enhancement? *Cambridge Journal of Education*, 28(2), 221-230.

Rule, S., Salzberg, C., Higbee, T., Menlove, R. & Smith, J. (2006). Technology-mediated consultation to assist rural students: A case study. *Rural Special Education Quarterly*, 25(2), 3-8.

Ryan, S. (1999). Alaska's rural early intervention preservice training program. *Special Education Quarterly*, 18(3-4), 21-28.

Sack, S. H. & McLean, L. K. (1997). Training communication partners: The new challenge for communication disorders professionals, *Focus on Autism & Other Developmental Disabilities*, 12(3), 151-158.

Sucuoglu, B. (1995). Ozurlu cocugu olan anne-babalarin gereksinimlerinin belirlenmesi [Determination of parents' needs who have children with mental retardation]. *Cocuk ve Genclik Ruh Sagligi Dergisi*, 2(1), 10-18.

Unlu, S. (1987). *Isitme Engelli Cocuklari Olan Ailelerin Uzaktan Ogretim Ile Egitilmesi. [Education of Families Who Have Children With Hearing Impairment By Distance Education]*. Eskisehir, Turkey, Anadolu University.

Wood, W. M., Miller, K. & Test, D. W. (1998). Using distance learning to prepare supported employment professionals. *Journal of Rehabilitation*, 64(3), 48-53.

Zahn, G. & Buchanan, M. (2002). [Supporting teachers of children with autism using distance education and video portfolios](#). *Rural Special Education Quarterly*, 21(4), 21-25.