Teachıng Social Skills to Individuals with Autısm Spectrum Dısorder: A Descrıptıve Study on Single-Subject Research

Gamze AVCI[1] and Başak BAGLAMA[2]*

[1]*Department of Special Education, Atatürk Faculty of Education, Near East University, Turkey,*

[2]*Assistant Professor, Department of Special Education, Faculty of Education, Cyprus International University, Cyprus*

*Corresponding author: Başak BağlamA, Assistant Professor, Department of Special Education, Faculty of Education, Cyprus International University, Cyprus

Abstract

The aim of this study is to examine the single-subject studies on teaching social skills to individuals with autism spectrum disorder (ASD) between the years 2005 and 2021. In this research, the document analysis method, one of the qualitative research methods, was used to examine the studies. The universe of the study consists of single-subject research articles in the field of social skills related to ASD accessed from Google Scholar and ERIC international databases. The sample of the research, on the other hand, consists of 30 articles about this subject in Turkey between the years 2005 and 2021. Results of the study showed that the studies in the field of social skills related to ASD were mostly carried out between 2011 and 2014, most frequently with 2 and 3 authors, 4 and 5 keywords, 3 participants and used multiple baseline models as a research design. It was also revealed that studies were mostly dealth with preschool period in inclusive environment and included social validity data. It is considered that this research will contribute to the literature, researchers and educators by providing information about current research trends in single-subject studies on social skills related to autism spectrum disorder.

Keywords: Autism spectrum disorder; Social skills; Teaching social skills; Single-subject research

Introduction

Autism spectrum disorder was first defined by Leo Kanner in 1943 as a chronic disorder with limited, repetitive behaviors, and some problems in socialization and communication [1]. As stated in the Diagnostic and Statistical Manual of Mental Disorders [DSM-V] of the American Psychiatric Association, difficulties faced by individuals with autism spectrum disorder in social and language development skills are among the criteria specified for the diagnosis of the disorder [2]. In addition, in DSM-V, the severity of autism spectrum disorder is determined according to the limitations in providing language, communication, social communication and social relations, and the difficulties in maintaining and perceiving the relationships [3]. This not only limits the area of social skills of children with autism spectrum disorder, but also causes the exclusion and alienation of individuals to continue their lives more easily and intensely [4].

The above-mentioned features and social skills are of great importance for both typically developing children and children diagnosed with ASD. It is seen that the most difficult area for children with autism spectrum disorder is social skills [5]. Social competence has been cited as key aspects of individuals' ability. In other words, it is stated that this competence is evaluated according to whether individuals exhibit appropriate behaviors in accordance with the criteria accepted by the society in their lives. Social competence is a word that includes skills in the social field. When people show their ability in the social field, they reach social competence [6]. However, providing education in the field of social skills to individuals with autism spectrum disorder is expressed as a process that is not easy for many reasons such as providing individuals with positive social development, avoiding social interactions effectively and lack of interest in the social field [7,8].

People need socialization and a place in society. However, being able to live in society is a social responsibility that can be realized more easily for some people, while for some people it is to

provide social skills as necessary and to strive to be a social person [9]. The socialization stages of children adapt to their social skills and social order as they interact with the people around their culture and their willingness to develop in the social field [10]. Because when children interact with the people around them, they display behaviors close to the behaviors of the individuals around them. For this reason, the skills gained in the social field are positively important in the fields of social, emotional and mental development [11].

The fact that individuals with ASD do not show interest in the social interaction initiated by the people they are in constant interaction with or exhibit withdrawal behavior causes negative experiences or avoidance in terms of interacting in the social area. Accordingly, the integration of individuals with autism spectrum disorder with the society in terms of social area decreases [12]. For this reason, it is seen as a very important goal to acquire skills related to social and communication fields in the treatment studies carried out for individuals diagnosed with autism spectrum disorder [13].

It can be said that the study will contribute to the literature in terms of providing information to practitioners (eg, teachers, employers, colleagues, family, etc.) in the field about effective and productive practices in research. The validity, reliability and reproducibility of scientific research is very important in terms of the credibility of the applications and research results [14,15]. In this context, the research will make an important contribution to the literature on increasing the quality of single-subject research and understanding the points that people who will do research in the field will pay attention to. In addition, it can be stated that the research is also important in terms of making suggestions for the comparison of the relevant studies conducted in our country with the international literature.

In recent years, there has been an increase in the number of studies on teaching social skills to individuals with autism spectrum disorder. For this reason, it is thought that it is important to reveal the trends of the researches in this field by examining the studies in this field based on determined criteria. The aim of this study is to provide an overview of single-subject research in the field of social skills in individuals with autism spectrum disorder and to examine the studies published between 2005 and 2021 in this field in various contexts. In the literature, there is a need for intervention studies that include effective and productive strategies for teaching social skills to students with autism spectrum disorder. This study is important in terms of emphasizing the research trends in the literature on students with special learning disabilities. With this analysis, it is aimed to present more up-to-date, comprehensive and qualified information to researchers working in the field of autism spectrum disorder and social skills, and to reveal in which areas more studies are needed. In line with this aim, answers to the following questions were also sought in this study:

1. What is the distribution of the studies based on year of publication?

2. What is the distribution for which research model is used among the single-subject research methods?

3. What is the distribution of the studies based on journal?

4. What is the distribution of the studies based on country/region?

5. What is the distribution of the studies based on participants?

6. What is the distribution of the studies based on research environment?

7. What is the distribution of whether social validity data were collected in the studies?

8. What is the distribution of the studies based on number of keywords?

Method

Research model

This study aimed to present in detail the single-subject studies conducted in the field of social skills related to autism spectrum disorder between the years 2005 and 2021. In this research, content analysis method was used to examine the studies. Content analysis is a method in which the content is systematically summarized by dividing the content into smaller categories with coding based on certain rules [16].

Content analysis can be done in two ways. In the first way, qualitative material is converted into quantitative data. For this, first the codes are determined. The researched content is examined and classified according to the codes and percentages are calculated. The second way is to express the qualitative material only in qualitative terms without converting it into numbers [17]. In this research, the first method was preferred for content analysis; the analyzed material was classified according to predetermined codes and frequencies and percentages were calculated.

Study group

In order to determine the studies to be examined within the scope of the research, the journals indexed in the DergiPark database and publishing articles in the field of education and educational research were examined. While scanning, the fact that the studies were carried out between 2015 and 2019 was determined as the basic criterion. The second criterion was autism spectrum disorder, social skills, and single-subject studies being included in the title, abstract and keywords. In order to reach related articles, 30 articles published in Google Scholar, ERIC and other international databases were examined. As a result of the scans, a total of 30 articles were reached and examined within

the scope of the research. The fact that the reviewed articles were between 2005 and 2021 is seen as a limitation. The studies included in the study were analyzed in full text using Turkish and English languages.

Data collection

The data collection process in this research consists of the stages of categorizing the theses that constitute the scope of the research according to certain topics, passing them through the coding process, digitizing, analyzing and reporting the data. The keywords to be used in the study and the categories in which the codes will be placed were determined in accordance with the literature review and expert opinions. A list of journals to be scanned by researchers has been prepared. The journal list was systematically shared among researchers. The articles were reviewed and the categories were reviewed.

During the current study, ethical principles oversight was adopted. In this context, the principles of scientific research and publication ethics were followed in the process of establishing the theoretical framework of the study, collecting data, analyzing and interpreting data. References made to different studies within the scope of the research are presented in the bibliography in accordance with scientific rules.

Data analysis

An article evaluation form was prepared by the researchers to determine the codes to be used in the review process. As a result of this process, the codes determined for content analysis are as follows: year of publication, research model, name of the journal, region, participants, research environment, whether social validity data were collected in the studies and number of keywords. In this study, content analysis was preferred since it was aimed to examine the studies on autism spectrum disorder and social skills which used single subject research method in depth and to determine current trends. The process performed in content analysis is to gather similar data within the framework of certain concepts and themes and to interpret them in a way that the reader can understand [18]. Analysis results are expressed with frequency and percentage values.

Results

In line with the data obtained from the studies within the scope of the research, articles related to the field of social skills related to autism spectrum disorder are shown in tables with frequency and percentage values.s

Distribution of articles on social skills and autism spectrum disorder by publication years

The descriptive statistical information of the publication years of the studies on the social skills and autism spectrum disorder is given in Table 1.

Table 1: Distribution of Articles by Publication Years.

Year	ƒ	%
2005-2010	12	40
2011-2014	13	43.33
2015-2017	1	3.34
2018-2021	4	13.33
Total	**30**	**100**

While making a categorization according to years, the time period was kept wide due to the small number of articles written between 2005 and 2021. When the publication years of the reviewed articles are examined, it is seen that the most studies in the field of autism spectrum disorder and social skills were between 2011-2014 (f=13). This increase in recent years can be associated with the increase in the preference for research in this field and the increase in the number of researchers specializing in the field.

Distribution of articles on social skills and autism spectrum disorder by number of authors

The descriptive statistical information of the number of authors in the studies on the social skills and autism spectrum disorder is given in Table 2.

Table 2: Distribution of Articles by Number of Authors.

Number of Authors	ƒ	%
1	2	6,67
2	6	20
3	6	20
4	4	13,34
5	2	6,67
6	3	10
10	3	10
13	1	3,33
14	1	3,33
16	1	3,33
18	1	3,33
Total	**30**	**100**

When Table 2 is examined, it is seen that the number of authors of the studies related to the social field related to autism spectrum disorder has at most 2 authors (f=6) and 3 authors (f=6).

Distribution of articles on social skills and autism spectrum disorder by number of keywords

Information on the number of keywords of the studies on the social field of autism spectrum disorder is given in Table 3.

Table 3: Distribution of Articles by Number of Keywords.

Number of Keywords	ƒ	%
Not specified	2	6,67
3	6	20
4	8	26,67
5	8	26,67
6	2	6,67
7	3	10
8	1	3,33
Total	**30**	**100**

When Table 3 is examined, it is seen that the most 4 (f=8) and 5 (f=8) keywords are used in the studies on the articles related to the social field of autism spectrum disorder.

Distribution of articles on social skills and autism spectrum disorder by number of participants

Information on the number of participants of the studies on the social field of autism spectrum disorder is given in Table 4.

Table 4: Distribution of Articles by Number of Participants.

Number of Participants	f	%
1	1	3,33
2	6	20
3	9	30.01
4	6	20
5	1	3,33
6	2	6,67
7	2	6,67
9	1	3,33
10	1	3,33
30	1	3,33
Total	**30**	**100**

When Table 4 is examined, it is seen that the studies on articles related to the social field of autism spectrum disorder included at most 3 (f=9) participants.

Distribution of articles on social skills and autism spectrum disorder by the name of journals

Information on the journal names of the studies on the social field of autism spectrum disorder is given in

When Table 5 is examined, it is seen that most of the studies on the social field of autism spectrum disorder were published in the Journal of Autism and Developmental Disorders (f=5) and Ankara University Faculty of Educational Sciences Special Education Journal (f=5).

Distribution of articles on social skills and autism spectrum disorder by regions

Information on the regions of the studies on the social field of autism spectrum disorder is given in Table 6.

When Table 6 is examined, it is seen that most of the studies on articles related to the social field of autism spectrum disorder were conducted in the New York region (f=7).

Distribution of articles on social skills and autism spectrum disorder by research models of single subject research methods

Information on the research models of single subject research methods among the studies on the social field of autism spectrum disorder is given in Table 7.

When Table 7 is examined, it is seen that the studies on the social field of autism spectrum disorder mostly use multiple baseline models (f=12).

Distribution of articles on social skills and autism spectrum disorder by participants' education status

Information on the participant education levels of the studies related to the articles related to the social field of autism spectrum disorder is given in Table 8.

When Table 8 is examined, it is seen that most of the studies on articles related to the social field of autism spectrum disorder were conducted at the preschool (f=14) education level.

Distribution of articles on social skills and autism spectrum disorder by social validity

Information on whether the studies on the social field of autism spectrum disorder have social validity data are given in Table 9.

When Table 9 is examined, it is seen that most of the studies on the social field of autism spectrum disorder have social validity data (f=17).

Distribution of articles on social skills and autism spectrum disorder by environment

Information on the environment in which the studies on the social field of autism spectrum disorder took place are given in Table 10.

When Table 10 is examined, it is seen that most of the studies on the social field of autism spectrum disorder were conducted in mainstreaming environment (f=9).

Table 5: Distribution of Articles by Name of Journals.

Name of Journals	*f*	%
Ankara University Faculty of Educational Sciences	5	16,67
Journal of Special Education		
Journal of Autism and Developmental Disorders	5	16,67
Research in Autism Spectrum Disorders	4	13,33
Journal of Developmental and Physical Disabilities	4	13,33
Developmental Neurorehabilitation	2	6,67
Topics in Early Childhood Special Education	2	6,67
International Journal of Developmental Neuroscience	2	6,68
Journal of Applied Research in Intellectual Disabilities	1	3,33
Journal of Applied Behavior Analysis	1	3,33
Education and Treatment of Children	1	3,33
Autism	1	3,33
Journal of Early Childhood Studies	1	3,33
International Journal of Early Childhood Special Education	1	3,33
Total	**30**	**100**

Table 6: Distribution of Articles by Regions.

Regions	*f*	%
New York	7	21.88
Wellington	5	15.63
Ankara	5	15.63
Texas	3	9.38
Kuzey Carolina	2	6.25
Bursa	2	6.25
Tokat	1	3,13
Santa Barbara	1	3,13
West Virginia	1	3,13
Las Vegas	1	3,13
Utah	1	3,13
Kelburn	1	3,13
Washington	1	3,13
Thessaloniki	1	3,13
Total	**32**	**100**

Table 7: Distribution of Articles by Research Models.

Research Model	*f*	%
Multiple baseline models	12	35,29
Multiple probe models	10	29,41
Repeated acquisition model	5	14,71
AB research model	5	14,71
Changing-criterion model	2	5,88
Total	**34**	**100**

Table 8: Distribution of Articles by Participants' Education Status.

Participants' Education Status	*f*	%
Preschool education	14	46,67
Primary education	7	23,33
Nursery	5	16,67
Secondary education	2	6,67
Not going to school	1	3,33
High school	1	3,33
Total	**30**	**100**

Table 9: Distribution of Articles by Social Validity Data.

Social Validity Data	*f*	%
Yes	17	56,67
No	13	43,33
Total	**30**	**100**

Table 10: Distribution of Articles by Environment.

Environment	*f*	%
Mainstreaming school environment	9	30
Preschool	6	20
Nursery	6	20
Classroom	4	13,33
Participants' homes	3	10
Clinical environment	2	6,67
Total	**30**	**100**

Discussion and Conclusion

In this study, it was aimed to examine the single-subject studies on teaching social skills to individuals with autism spectrum disorder (ASD) between the years 2005 and 2021 based on the variables including the year, number of authors, number of keywords, number of participants, journal names, regions, research designs, participant education levels and social validity data in Turkey and in the world.

Looking at the publication years, it was determined that the studies were carried out between 2011-2014. According to this finding, it can be concluded that the studies in the field of social skills related to autism spectrum disorder between 2011 and 2014 gained awareness and importance. Most of the reviewed articles were found to have 2 or 3 authors. Accordingly, it can be concluded that the researchers received support from each other and were in cooperation. Considering the number of keywords in the studies on social skills related to autism spectrum disorder, it was determined that 4 and 5 words were used at most. Considering this finding, it can be said that when the keywords related to the research are scanned, it is used in terms of making the research easier to access.

In this study, it was seen that the number of participants was made with a maximum of 3 people. As a result, it may be difficult to work with many students as social skills will be performed with individuals with autism spectrum disorder. Considering the articles examined, it was seen that the Journal of Autism and Developmental Disorders and Ankara University Faculty of Educational Sciences Special Education Journal were published the most. In this case, it can be said that studies related to autism spectrum disorder are more qualified and readable. In this study, it was seen that the most social area related to autism spectrum disorder was done in the New York region. Accordingly, it can be said that studies on autism spectrum disorder in the New York region are more effective and prioritized.

When the research designs are examined, it is seen that multiple initiation models related to the social domain related to autism spectrum disorder are mostly used. As a result, it can be said that multiple baseline models are used because they are more effective. The finding of this study is in line with the study conducted by Guven and Diken in 2014 on teaching social skills to children with autism spectrum disorder. As a result of the research conducted by Guven and Diken [17], they found that most of the studies used multiple baseline models from single-subject research models.

Considering the majority of the researches, it was determined that the participants were educated at pre-school education levels. According to this finding, it can be concluded that children diagnosed with autism can be reached more easily in the preschool period. In the review of Kizir and Yıkmış in 2016 [19] on the field

of social skills teaching of children with autism spectrum disorder, they found that most of the studies were 5-12, 12-17 years old and above. Considering the articles examined, it was determined that social validity data were provided in most studies. Considering this situation, it can be concluded that the presence of social validity data increases the validity and reliability of the study and it is a more effective research. This research is similar to the research conducted by Guven and Diken in 2014. In the study conducted by Guven and Diken [17], they found that most of the studies had social validity data. When we look at the environment related to the social area related to autism spectrum disorder, it is seen that it is mostly done in the inclusive environment. The findings of this research overlap with the study conducted by Guven and Diken in 2014. Guven and Diken [17] found in their study that the area related to the social area was carried out in an inclusion environment.

It is thought that this research will contribute to the literature, researchers and educators by providing information on the field of social skills related to autism spectrum disorder. In line with the results obtained, some suggestions can be made. In order to carry out qualified and well-equipped research, researchers who specialize in different fields can cooperate and work with multiple authors. It may be necessary to increase the number of studies on sample groups of children who do not go to school, who study at secondary and secondary education level. Content analysis or metaanalysis studies on autism spectrum disorder and social areas can be increased. Other models of single-subject research methods can also be included in studies as research designs. While providing social skills to individuals with autism spectrum disorder, it can be recommended to provide education in the natural environment where the student lives.

References

1. Bodur S, Soysal AS (2004) Otizmin erken tanisi ve onemi. Sted 13(10): 394-398.

2. American Psychiatric Association (2013) Diagnostic and statistical manual of mental disorders (5th edn.). Washington, DC.

3. Okcun-Akcamus MC (2016) Otizm spektrum bozuklugu olan cocuklarin sosyal iletisim becerileri ve dil gelisim ozellikleri. Ankara University Faculty of Educational Sciences Journal of Special Education 17(02): 163-192.

4. Copuroglu YC, Mengi A (2014) Toplumsal dislanma ve otizm. Electronic Turkish Studies 9(5): 127-136.

5. Sani-Bozkurt S (2016) Otizm spektrum bozuklugu olan cocuklara sosyal beceri ogretiminde teknoloji destekli etkilesimli ortam tasarimi ve etkililigi (Unpublished doctorate thesis). Anadolu University, Graduate School of Education Sciences, Turkey.

6. Turhan C, Vuran S (2015) Otizm spektrum bozuklugu gosteren cocuklara sosyal beceri ogretiminde sosyal oyku ve video model uygulamalarinin etkilik ve verimlilikleri. International Journal of Early Childhood Special Education 7(2): 294- 315.

7. Moody CT, Laugeson EA (2020) Social skills training in autism spectrum disorder across the lifespan. Psychiatric Clinics 43(4): 687-699.

8. Radley KC, Dart EH (2022) Behavioral skills training. In Social Skills Teaching for Individuals with Autism. Springer, Cham, pp. 35-47.

9. Deniz EA (2019) Cocuk merkezli oyun terapisinin otizmli cocuklarda sosyal becerilerin gelisimine etkisinin incelenmesi (Unpublished master thesis). Necmettin Erbakan University, Graduate School of Education Sciences, Konya, Turkey.

10. Baferani MH (2015) The role of the family in the socialization of children. Mediterranean Journal of Social Sciences 6(6): 417-417.

11. Turker C, Sen SG, Sazak E (2020) Otizmli cocukların sosyal becerilerini gelistirmede uygulanan mudahalelerin etkililigi: Bir derleme calismasi. Egitim ve Toplum Arastirmaları Dergisi 7(1): 28-45.

12. Ozdemir S (2007) Sosyal oykuler: Otistik cocuklara yonelik bir sagaltim. Ankara University Faculty of Educational Sciences Journal of Special Education 8(02): 49-62.

13. Karasu N (2009) Otizmden etkilenmis bireylerde sosyal ve iletisim becerilerini arttiran yontemlerin delile dayali yontem olarak belirlenmesi: Bir meta-analiz ornegi. Turk Egitim Bilimleri Dergisi 7(3): 713-739.

14. Hart SL, Banda DR (2010) Picture Exchange Communication System with individuals with developmental disabilities: A meta-analysis of single subject studies. Remedial and Special Education 31(6): 476-488.

15. Kasap DC, Ergenekon Y (2022) Zihin yetersizligi olan bireylere is ve meslek becerilerinin ogretimine yonelik Turkiye'de yapilan tek-denekli arastirmalarin incelenmesi. Kalem Egitim ve Insan Bilimleri Dergisi 12(1): 239-260.

16. Buyukozturk S, Cakmak EK, Akgun OE, Karadeniz S, Demirel F (2017) Bilimsel arastirma yontemleri. Ankara: Pegem.

17. Rubin A, Babbie ER (2011) Research methods for social work. Belmont, CA: Brooks/Cole. Guven D, Diken IH (2014). Otizm spektrum bozuklugu olan okul oncesi cocuklara yonelik sosyal beceri ogretim mudahaleleri. Ankara University Faculty of Educational Sciences Journal of Special Education 15(01): 19-38.

18. Yildirim A, Simsek H (2011) Sosyal bilimlerde nitel arastirma yontemleri. Ankara: Seckin Publish.

19. Kizir M, Yikmis A (2016) Otizm spektrum bozuklugu olan bireylere sosyal beceri ogretiminde bilgisayar destekli ogretim uygulamalarinin gozden gecirilmesi. Bartin Universitesi Egitim Fakultesi Dergisi 5(2): 247-272.

Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats
  (Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

Track the below URL for one-step submission
https://juniperpublishers.com/online-submission.php