Psychosocial Effects of Dyslexia in Terms of Students, Parents, and School Community– Research Review

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Abstract

This study examined the studies conducted between 2010-2022 related to secondary school dyslexic students in Türkiye and discussed them in terms of content. In the current study, studies involving dyslexic students, their parents and teachers, and examining psychological processes of the participants, such as perception, attitude, quality of life, anxiety, depression, and coping skills, were included. The systematic review method was used in the study. A database search was carried out using the electronic database of Ondokuz Mayis University including ERIC, EBSCO, YOK Thesis Center, and Google Scholar. A total of 11 theses and 10 articles met the inclusion criteria. These studies were discussed under three categories based on the participant groups. Results of this study showed that there are limited studies on the psychological and social effects of dyslexia. We also found that research on dyslexia is mainly done with students in primary school and focuses more on academic skills. Our findings shows that further research planned from an interdisciplinary perspective is needed to better understand the psychosocial effects of dyslexia on students, parents, and school community.

Keywords: Specific learning disability, dyslexia, psychosocial effects of dyslexia.

Öz

Bu çalışma, Türkiye'de ortaokul çağındaki disleksili öğrencilerle ilişkili, 2010-2022 yıllarında gerçekleştirilen araştırmaları inceleyerek içerik açısından tartışmıştır. Araştırmada disleksili öğrenciler, aileleri ve öğretmenlerinin katılımları ile gerçekleşen, katılımcıların algı, tutum, yaşam kalitesi, kaygı, depresyon ve başa çıkma becerileri gibi psikolojik süreçlerini içeren çalışmalara yer verilmiştir. Araştırmada sistematik derleme yöntemi kullanılmıştır. Ondokuz Mayıs Üniversitesi elektronik veri tabanında yer alan ERIC, EBSCO, YOK Tez Merkezi ve Google Scholar kullanılarak tarama gerçekleştirilmiş ve araştırmaya dâhil edilme ölçütlerini karşılayan 11 tez ve 10 makaleye ulaşılmıştır. Ulaşılan çalışmalar katılımcı gruplara göre üç kategoriye ayrılarak tartışılmıştır. Araştırma sonucunda disleksinin psikolojik ve sosyal etkilerine yönelik çalışmaların yeterli olmadığı görülmüştür. Disleksi ile ilgili araştırmaların ağırlıklı olarak ilkokuldaki çocuklarla yapıldığı ve daha çok akademik becerilere odaklandığı görülmüştür. Türkiye'de disleksinin psikososyal etkileri ile ilgili literatürün geliştirilmesi için disiplinler arası bir bakış açısıyla planlanan bilimsel çalışmalara ihtiyaç vardır.

Anahtar Sözcükler: Özgül öğrenme güçlüğü, disleksi, disleksinin psikososyal etkileri.

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Introduction

Dyslexia is a disorder encountered in children and adults, regardless of culture or language. According to the International Dyslexia Association, approximately 9-12% of the population is affected by dyslexia. In The Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5), dyslexia is addressed under the specific learning disability (SLD), and its prevalence is 5-15% among school-age children and approximately 4% among adults (American Psychiatric Association, 2013). Dyslexia, used synonymously with specific learning difficulties or reading difficulties, is a learning disorder that causes difficulties in reading, spelling, and writing skills and in acquiring and using other social skills. Dyslexic students need help with spelling, word recognition, reading fluency, correct decoding, and reading comprehension skills despite their average intelligence level adequate for learning (Lyon et al., 2003). These difficulties usually occur in the first years of formal education and continue into adulthood. The common belief is that these difficulties are due to disorders in phonological processing (Lyon et al., 2003). The International Dyslexia Association states that, despite the mental abilities and motivation of dyslexic students, they cannot learn like typical development students without proper support.

Studies have emphasized that dyslexic students can learn and make progress in the areas they have difficulties when they are offered systematic and evidence-based instruction following an early diagnosis (McLoughlin & Leather, 2013; Perelmutter et al., 2017). Determining dyslexia at an early age and providing the necessary interventions also alleviates the difficulties they may encounter in adulthood as dyslexia continues for life. According to Lum et al. (2014), the symptoms of dyslexia become evident in areas that change with age, so dyslexic students may experience learning difficulties in decoding, spelling, fluency, and word recognition skills in childhood cause limitations in skills such as fluent reading, reading comprehension, story summary, written expression, memorization, and foreign language learning in adolescence (Law et al., 2014; Lum et al. 2014).

When the studies on dyslexia in Türkiye are examined, it is seen that the focus of the research is to determine the academic difficulties experienced by dyslexic students (Arabacı, 2017; Dada & Ergül, 2020; Ergül, 2012; Gündoğdu et al., 2020; Özmen, 2005) and to intervene to eliminate these difficulties (Çayır & Balcı, 2017; Dağ, 2010; Fırat, 2019; Rasmussen & Cora, 2017; Yılmaz, 2021; Yüksel, 2010). Moreover, the studies are often carried out with primary school children (Görgün & Melekoğlu, 2019; Özkardes, 2013). The psychological and social effects of dyslexia on dyslexic students, their families, and school community are not addressed. Difficulties experienced by dyslexic students are not limited to academic areas. Academic failure and accompanying frustration often cause emotional and behavioral problems (Mayes et al., 2000). Al-Yagon (2010) states that emotional and behavioral difficulties experienced by dyslexic students include peer rejection, low self-esteem, withdrawal, low coping skills, depression, and anxiety especially in early adolescence. These difficulties can be seen in three primary levels: individual, family members, and school community. It is thought that it is crucial to examine the dyslexia-induced psychosocial conditions of dyslexic students and their close circles to provide guidance for future studies to be conducted in this area. Therefore, this study examined research studies in Türkiye that examined the psychological and social impact of dyslexia on dyslexic students, their parents, and the school community. This study aims to determine the current state of research in this area by compiling studies conducted between 2010 to 2022 in Turkish literature.

Inclusion Criteria

The following criteria were used for the selection of the studies:

- 1. The research was carried out in Türkiye between 2010 2022.
- 2. Participants of the studies were students between the ages of 10-15 diagnosed with dyslexia, their parents, teachers, or peers.
- 3. Studies were published in peer-reviewed journals or available in recognized databases in the form of masters and doctoral theses in pedagogy, psychology, and medicine.

Search Process

To identify studies to be included in this current review, the following keywords were used "dyslexia", "special learning difficulties", "learning difficulties", "learning disabilities", "reading disabilities", "reading difficulties" in Ondokuz Mayıs University electronic databases, ERIC, EBSCO, YOK Thesis Center, and Scholar Google (Google Scholar). The keywords were written separately in the search boxes of the databases using "or." Studies identified through database search were downloaded to be screened according to the inclusion criteria.

Screening and Coding Process

As a result of the database search, 479 studies were identified and screened based on the inclusion criteria (publication year, subject, peer-reviewed or thesis) The screening process resulted in 21 studies to be analyzed within the scope of this study. These included 11 theses 10 articles. The studies were grouped under three categories according to the participant groups (dyslexic students, parents, teachers/school community) for coding and analysis. Each of the qualifying studies were coded to determine study characteristics and findings. Figure 1 shows the procedures used to identify studies that were included in this review.



Figure 1. Flow chart of procedures used to identify studies.

A secondary researcher independently completed the search and screening process using the same procedures and categories the qualifying articles for reliability purpose. Results of the reliability check showed that the secondary observer also identified the same studies. In categorizing the studies, the first author and secondary researcher read the studies independently and placed them into categories. The inter-coder reliability agreement score was calculated using Miles and Huberman's (1994) formula [Agreement / (agreement + disagreement) * 100]. The inter-coder reliability coefficient was found to be 100% for screening and categorizing the studies.

Results

Research with Dyslexic Students

Turkish laws and regulations have regularly been updated to provide equal education opportunities for students with disabilities since the 1990s (Aksoy ve Safak, 2020). As a result of these changes, enrollment rates of students with special needs in Türkiye has increased gradually over the years. During the 2018-2019 academic year a total of 388,816 students with special needs were enrolled in schools. While some portion of these students attend special education classrooms or schools, approximately 73.9% of them are enrolled in inclusive classroom or schools (Ministry of National Education, 2018). One of the largest groups of students in the inclusive environments is students with SLD or dyslexia (Education Research and Development Department, 2010).

Despite increased access to inclusive settings, dyslexic students still have some difficulties in relation to academic and social skills in school. Until today, researchers have mostly worked to solve academic problems and have developed various techniques and interventions for this purpose. However, dyslexic students also have to deal with socioemotional and behavioral difficulties besides their academic limitations. The ability of dyslexic students to cope with difficulties in various areas and solve their problems positively affect their psychological and mental health and increases their quality of life. Kap (2014) states that the difficulties experienced in the learning activities cannot be explained only by cognitive processes and mental problems the students have might have impact on their cognitive abilities. In this context, the author investigated the effect of mental problems on cognitive impairments, which are the basis of SLD. The study involved 30 students with SLD and 30 students with typical development who attended primary and secondary schools. Psychological functioning of children was evaluated using Children's Appreciation Test, Thematic Appreciation Test, and Rorschach Test and cognitive functioning by using Bender Gestalt Visual-Motor Perception test. Findings of this study showed that children with SLD have difficulties thinking during the test process. Thinking and responding by thinking is challenging for students with SLD, unlike students with typical development. Comparisons between experimental and control groups showed that there are differences in terms of both cognitive and mental processes between students with and without SLD. In students with SLD, cognitive impairment, anxiety of intense object loss, and impulsive inhibition/overflow were observed. In other words, problems that exist in the mental functioning of students with SLD can disrupt their cognitive processes.

Dyslexic students can be labeled as unsuccessful and incompetent by people around them due to their limitations in academic skills. Akıncı (2011), based on the idea that this situation develops a negative self-concept in students with SLD, examined the possible relationship between perceived social support and self-concepts of students with SLD. A total of 100 students aged 8-12 years diagnosed with SLD participated in the study. Social Support Assessment Scale for Children and Adolescents, and Piers Harris Self-Concept Scale for Children were used. Findings showed that the social support perceived by students with SLD did not differ according to the situation of having problems in one or more areas. Class level and age variables did not affect perceived social support. In addition, the parents of students with SLD were asked if their children were compatible. Children who qualify as compatible by their parents achieved higher scores in terms of social support scores. Because children who are socially compatible communicated better with their family members and perceived more social support. Similarly, students who were qualified as compatible by their teachers had higher social support scores from teachers. Findings also showed that the social support and self-concepts of students with SLD were related. As perceived social support increased, self-concept and associated subdimensions (happiness-satisfaction, anxiety, social acclaim, popularity, behavior and conformity, physical appearance, mental and school status) increased.

In a similar study, Yavuz (2020) examined the relationship between the sense of belonging to the school and their fear of negative evaluation in academic environments among students with SLD. A total of 220 secondary school students with SLD participated in the study. Results showed that there was a significant difference between the "Sense of Belonging" sub-dimension and the state of self-perception. It was also found that the average score of the students who perceived themselves as assertive/talkative was higher than those who perceived themselves as shy. In addition, the cognitive effect of fear of negative evaluation decreased as the sense of belonging to the school increased. Moreover, female students were uncomfortable with the feeling of being unsuccessful and being evaluated negatively. They experienced more anxiety, and their average score for sense of belonging to the school was lower.

Dyslexia also affects the quality of relationships that children establish with their peers. Zengin and Öksüz (2022) conducted examined the peer relationships of students with SLD. A total of 89 students with SLD and 95 with typical development (8-14 ages) participated in the study. According to the study's results, SLD negatively affected students' relationships. In another study, Bulanık-Özdemirci (2019) investigated the prevalence of peer bullying in students with SLD; 114 students (7-12 ages) participated in the study. Findings showed that 50% of the students participated in peer bullying (in the roles of victim, bully, or bully-victim).

Kılıç (2018) examined the relationship between a diagnosis of SLD and secure attachment, emotional intelligence, and parental attitudes. A total of 94 students (aged 8-13) were included in the study, 36 with SLD and 58 without SLD. Findings showed that there was a statistically significant difference between students with and without SLD in interpersonal skills. Students without SLD had better abilities to establish and maintain a satisfying relationship with the environment and develop a shared understanding and expectation with other people. In addition, the study found a statistically significant difference between students of adaptation, meaning that students without SLD can find practical solutions to their problems, have an objective and realistic perspective, and be flexible.

Saday-Duman et al. (2017) examined the effect of an educational therapy on selfesteem and problem behaviors in students with SLD. A total of 150 students (9-11 ages) 100 students with SLD, and 50 students with typical development, participated in the study. Data were collected using the Piers-Harris Children's Self-Concept Scale, Child Behavior Checklist (CBCL 6-18), and Teacher Form. Results showed that the self-esteem score of students with SLD was lower than those of students without SLD. Compared to the scores of typically developing students, behavioral problem scores were higher for students with SLD. An increase in self-esteem scores and a decrease in problem behavior scores were observed in the group receiving educational therapy. In other words, educational therapy had a positive effect on reducing the problem behaviors of students with SLD and increasing the self-esteem level of these students.

Karzan (2020) evaluated the psychosocial difficulties students with SLD encounter and related factors. A total of 60 students with SLD and 74 students with typical development participated (6-18 ages) in the study. Results showed that another psychiatric disease accompanied SLD at a rate of 88.3%, and attention deficit and hyperactivity disorder (ADHD) were the most common one. The total score obtained from the self-concept scale was found to be significantly lower for students with SLD in comparison to typically developing children. The students' perceived self-concept was also found to be associated with parental anxiety and depression levels. It was determined that as friends' support increased, the students' perceived self-concept also increased.

Baltacı (2017) examined the self-efficacy perceptions, state anger, and anger expression styles of secondary school students with and without SLD. A total of 110 students, 55 with SLD and 55 without SLD, participated in the study. The ages of the students were between 12-15. Self-efficacy Scale for Children and Continuous Anger and Anger Expression Style Scale were used in the study. Results showed that the students without SLD in all dimensions and total scores on the self-efficacy scale had higher scores than the students who had SLD. On the other hand, anger scores were higher in students with SLD, while anger control scores were higher in students with typical development. There was no significant relationship between self-efficacy and academic achievement in students with and without SLD and between anger and anger expression styles and academic achievement. In addition, the variables related to self-efficacy for students with and without SLD did not predict students' state anger and extrinsic anger. However, self-efficacy perceptions predicted anger control variables in students with SLD, while self-efficacy variables predicted intrinsic anger variables in students with typical development.

Araz and Görker (2018) examined the frequency of psychiatric comorbidity in students with SLD, the factors affecting the comorbidity frequency, and the relationships between specific learning disorder subtypes and cognitive profiles. A total of 80 students between the ages of 6-15, diagnosed with SLD participated in the study. Research findings indicated that 92.5% of students with SLD had a comorbid psychiatric disorder. The most common psychiatric comorbidities were ADHD (82.3%), specific phobia (46.3%), oppositional defiant disorder (ODD) (26.3%), enuresis (25%), and tic disorder (22.5%). In cases where SLD was accompanied by ADHD, the negativities caused by learning difficulty were experienced more severely, and this situation was accompanied by more psychiatric problems. Results of the study also showed that depressive disorder, separation anxiety disorder, social phobia, specific phobia, OCD, enuresis, ODD, behavioral disorder, and adjustment disorder were more common in students with SLD

Research with Parents of Dyslexic Students

Yıldız (2019) aimed to determine the anxiety and depression levels of the mothers and fathers of students with SLD, their marital adjustment levels, and the difficulties parents face in raising a child diagnosed with SLD. A total of 200 parents of students between the ages of 7-12 who were diagnosed with SLD participated in the study. Findings showed that mild or moderate depression was detected in the mothers and fathers of students with SLD. Both the level of depression and anxiety of mothers was higher than those of fathers. The study also found a statistically significant and negative correlation between the age of children to start receiving special education and their mother's depression level. This finding supports the importance of early diagnosis. There was a positive correlation between mothers' depression levels and mothers' and fathers' anxiety levels. There was also a negative correlation between mothers' depression level and mothers' and fathers' marital adjustment level. In other words, anxiety and depression levels of mothers with high marital adjustment were reported to be lower. A significant positive correlation was found between the depression level of the fathers and the anxiety level of

the mothers and a negative correlation with the mothers' and fathers' marital adjustment level. A positive correlation was observed between the mothers' and fathers' marital adjustment levels. Unexpected situations encountered during the marriage (such as having a child with SLD) may lead to various levels of depressive mood in spouses and directly affect marital adjustment.

In another study related to the anxiety and depression levels of parents, Karaaziz (2020) compared the stress, depression, and anxiety levels of the parents of students with and without SLD. Findings of the study showed that having a child with SLD did not affect the level of depression experienced by parents. However, the stress levels of parents of children with SLD were higher than those of the parents of children without SLD. Büyükçakmak (2015) compared the emotional expression and anxiety levels of parents of children with and without SLD; 150 parents participated in the study, 75 parents of a child with SLD and 75 parents of a typically developed child. Parents of the typically developing children with SLD. This is interpreted as individuals with high emotional expression are more self-confident, experiencing less anxiety and guilt, and feel happier.

Atalay (2013) examined the perceived social support levels of mothers of children with SLD and their coping styles. A total of 70 mothers participated in the study (35 mothers of children with SLD, and 35 mothers of children with typical development). Mothers were asked to answer the Multidimensional Perceived Social Support Scale and Stress Coping Attitude Scale. Findings showed that mothers of children with SLD used emotion-oriented coping methods and dysfunctional coping methods more than mothers in the control group. Mothers in the control group used problem-oriented coping methods more frequently. Perceived family support did not differ statistically between the groups. Results also showed that mothers of children with SLD did not receive valuable and adequate social support from their environment and therefore had difficulty actively coping with the stress they experienced. In a similar study, Kurtbevoğlu and Yıldız-Demirtas (2020) examined the perceived social support and depression levels of parents of children with SLD; 175 parents participated in the study. Results showed that mothers had a higher perception of social support than fathers. The perception of social support was affected by the education level of the parents and the number of children they had. As the perceived social support levels of the parents increased, the depression levels decreased.

Yıldız et al. (2012) examined the problems that Turkish dyslexic students and their parents face in school, family, and social settings during the diagnosis process. Within the scope of this research, seven parents with dyslexic children were interviewed. Results showed the parents believed that teachers have a negative attitude towards both parents and their children, and teachers' knowledge about dyslexia is insufficient. Family members also displayed negative attitudes towards the dyslexic students (insult, exclusion, psychological pressure, etc.). It was also found that dyslexic students were excluded and bullied by their friends.

Based on the studies stating that learning difficulties in children with SLD affect the perception of parents' quality of life, Sakız and Baş (2019) examined the effects of these children's perceived life quality on the level of life quality perceived by their parents. A total of 120 students (aged 7-16) and their parents participated in the study; 66 students were in primary grades while 54 were in secondary schools. The study measured students' perception of quality of life using the General Purpose Health Related Quality of Life Scale (KINDL-R). Perceived quality of life of the parents was measured by the World Health Organization Quality of Life Scale-Short Form Turkish Version (WHOQOL-BREF-

TR). Results showed that the total quality of life (M = 52.40) of students with SLD was lower than the sample average (M = 76.75). Parents' results were similar to their children's scores. The mean score obtained regarding the parents' quality of life was lower than those obtained from the adaptation sample of the WHOQOL-BREF scale. Another finding was that parents' quality of life was positively associated with the quality of life of children. In other words, to increase parents' quality of life, it is necessary to increase quality of life of their children.

Research with Teachers in the Context of Dyslexia

Balcı (2019) examined teachers' opinions about dyslexia and the problems they faced while working with students with dyslexia. A total of 72 teachers. participated in this study. Teachers' opinions were obtained through a semi-structured teacher interview form. Findings of the study showed that the teachers did not gain sufficient information and knowledge about dyslexia during their university education, and therefore, they did not know how to work with these students. Teachers stated that their knowledge level about dyslexia was not sufficient, and they felt inadequately prepared. In addition, they noted that when they encounter dyslexic students, they may not notice them as they do not have the necessary professional skills to diagnose them. Moreover, teachers stated that they did not know the methods of education that would meet the needs of dyslexic students.

School counselors have an influential role in diagnosing and psychosocial support for students with SLD. In this context, Dadandi et al. (2016) examined the awareness levels of school counselors working with students with SLD in secondary schools regarding these students' psychosocial problems and guidance needs. A total of 12 school counselors participated in the study. Semi-structured interview forms were used to collect data. Results showed that school counselors divided the problems of students with SLD in school into two categories: student-related problems (low self-image, incomplete social skills, and negative thoughts about themselves), family and social-environment related problems (exclusion of students with SLD by their friends and inadequate teacher support). School counselors stated that the guidance services most needed by students with SLD are practices that include suport to increase the academic success of these students (such as increasing motivation and gaining efficient study habits). In addition, the difficulties teachers faced the most when working with students with SLD during ongoing classroom activities.

Gül et al. (2016) evaluated teachers' stigma and misinterpretation of SLD; 92 female teachers and 79 male teachers participated in the study. A questionnaire containing items related to the characteristics of SLD and the tendency to stigmatize was given to teachers. In terms of the causes of SLD, findings showed that female teachers reported genetic factors cause SLD while male teachers reported that attention deficit causes SLD. A 20% of teachers believed that SLD caused mental retardation. Teachers were somewhat familiar with the symptoms of SLD. The most common symptom of SLD reported by teachers was problems during reading and writing. A 26.1% of female and 24.1% of male teachers did not want their children to be classmates of children with SLD. Overall, findings showed that false information and stigmatization about SLD were common among teachers.

Özer (2021) interviewed ten music teachers to determine the opinions of secondary school music teachers working with dyslexic students about these students. As a result of the study, it was determined that dyslexic students could not communicate well with their

friends and teachers, had problems with social adaptation, and had difficulties understanding, perceiving, and listening carefully to the instructions given. It has been determined that music teachers did not receive training on the music teaching of dyslexic students during their education and did not know how to support these students.

Discussion

Student Research

According to the results obtained from the analysis, we cannot explain the difficulties of dyslexic students in learning only by considering the cognitive processes as the problems of dyslexic students in the psychological are cause cognitive impairments (Araz-Altay & Görker, 2018; Kap, 2014). This affects the learning performance of dyslexic students. Other psychiatric comorbidities often accompany the diagnosis of dyslexia. Therefore, these students have to cope with psychiatric problems such as ADHD, oppositional defiant disorder, adjustment disorder, social phobia, and depression (Campbell, 2002; Germano et al., 2010). This situation causes the dyslexic students to be labeled by their family members, friends, and teachers. Dyslexic students are not preferred in social relations and suffer from loneliness (Rose et al., 2015; Tur-Kaspa et al., 1998).

According to another finding, dyslexic students are labeled as unsuccessful and incompetent because of their difficulty in academic skills. This situation causes a negative sense of self and low self-esteem in dyslexic students (Akıncı, 2011). Another remarkable finding is that low self-esteem is associated with problem behaviors in the school environment, and when self-esteem increases, problem behaviors decrease (Saday-Duman et al., 2017). Similarly, Terras et al. (2009) found that dyslexic students had a lack of self-esteem in the field of scholastic competence; they also found that social, emotional, and behavioral difficulties are more common in dyslexic students, and poor psycho-social cohesion is significantly associated with low self-esteem. In addition, Novita (2016) examined and compared the anxiety and self-esteem profiles of students with and without dyslexia and found that dyslexic students had higher general anxiety and lower self-esteem (than students with typical development.

Considering the findings of the studies reviewed, it is seen that dyslexic students cannot successfully cope with the academic, psychological, or social difficulties they face. Alexander-Passe (2006) investigated how dyslexic students cope with their difficulties and whether this affects their self-esteem and depression and found that dyslexic students (predominantly female participants) used emotional coping and avoidance more. In addition, dyslexic students were found to have lower academic self-esteem. Firth et al. (2010) found that students with SLD used more non-productive coping styles than the general Australian population aged 12 and 13 and often ignored the problem.

Problems experienced by dyslexic students are not limited to academic skills. These students also have to deal with prejudices and bullying resulting from negative labeling. Dyslexic students experience negative emotions, such as hopelessness, low self-esteem, low perceived quality of life, depression, and high anxiety simultaneously. The fact that dyslexic students constantly have to cope with these negative feelings and experiences can prevent them from having healthy life during adolescence and adulthood. Therefore, it is critically important to support social and psychological well-being of student with SLD while addressing cognitive and academic problems they encounter.

Family Research

Our analyses showed that the parents of dyslexic students have anxiety and depression. In addition, parents' anxiety and depression levels associated with dyslexia affect their marital adjustment (Yıldız, 2019). Unexpected situations such as having a dyslexic child may create depressive feelings in spouses, negatively affecting marital adjustment. Moreover, low expectations of parents with dyslexic children regarding their child's future education and professional life may cause them to experience more anxiety and depression (Antshel & Joseph 2006; Bonifacci et al., 2014; Waggoner & Wilgosh, 1990). Dyson (2010) states that differences in parenting styles and expectations among parents, the use of different strategies, the conflict between parents, blaming each other, and assuming more responsibility the mother are more prominent in families with a dyslexic child. This situation affects the harmony among family members. Studies showed that parents that have a dyslexic child feel shame about difficulties in their children and feel guilty that they devote less time to their children who have typical development due to their children with SLD (Dyson, 2010). On the other hand, raising a child with SLD forces parents' marital relationships and causes a tense family life. This situation increases when the child starts school (Dyson, 2010; Rimkute et al., 2014).

Another remarkable finding was that mothers of children with SLD mostly use dysfunctional coping methods to deal with stress (Atalay, 2013). These mothers does not receive adequate social support from other individuals around them, which may cause them to have difficulty actively dealing with the stress they experience. It is stated that parents of children with SLD experience higher levels of parental distress (Bonifacci et al., 2016). It is thought that factors such as parents' not knowing what to do while coping with the difficulties brought by SLD, feeling guilty, the feeling of failure, and losing control when faced with responsibilities are caused to this situation. Another finding is that the perceived quality of life of both dyslexic students and their parents is low. To increase parents' perception of quality of life, the quality of life of their children should be improved (Sakız & Baş, 2019). Ginieri-Coccossis et al. (2013) found that parents of dyslexic children experience lower satisfaction in social relations. In addition, studies reported that the mothers of dyslexic children perceived the quality of life of their children in the school environment more negatively; parents were deprived of social support and could not talk to other individuals about their children's disability (Dyson, 2010; Rotsika et al., 2011).

Being dyslexic significantly affects the persons with dyslexia and those around them. Therefore, it is essential to examine this disorder's psychological and social effects on dyslexic children and their family members. Because the psychological state and future plans of parents are affected by dyslexia. Giving the parents the support they need will help reduce their negative feelings, anxiety, and stress levels. When parents know what to do, they approach their children more accurately. This also makes it easier for them to collaborate with professionals and teachers at school. A healthy family environment is necessary to develop a psychologically and physically healthy individual. When we examined the studies in Türkiye, it is seen that more studies were carried out to identify parent's problems and needs. However, interventions and attempts to address the needs and problems of parents should also be an essential step that should be investigated.

Teacher Research

Our analysis showed that studies with teachers were mostly done to determine teachers' knowledge level about dyslexia. Findings of this review showed that the majority of teachers (a) do not have sufficient knowledge about dyslexia (Balcı, 2019), (b) feel inadequately prepared to work with these students (Balcı, 2019; Dadandı et al., 2016), (c)

do not have the professional skills necessary to diagnose dyslexic students (Balcı, 2019; Doğan, 2013), (d) do not know the instructional methods to support dyslexic students (Balcı, 2019), (e) do not have sufficient training on dyslexia (Balcı, 2019), and (f) have misinformation about dyslexia (Gül et al., 2016).

It is thought that teachers' knowledge about dyslexia affects their perception of dyslexic students, choosing appropriate teaching methods and techniques, and understanding the difficulties experienced by these students. When we examined the literature, it has been found that the label of dyslexia affects teachers' feelings and expectations about dyslexic students' future failure (Vlachou et al., 2014). Similarly, it has been observed that teachers trained in special education have more confidence in their competencies in teaching dyslexic students, feel competent, and are more hopeful about reaching their goals (Levi et al., 2014). Troeva (2015) examined how teachers approach the differences in reading profiles of dyslexic students and their opinions on the effects of having a diagnosis of dyslexia on the choice of strategy in teaching reading skills. Findings showed teachers stated that dyslexia is not a homogeneous disorder; dyslexic students have different reading profiles; a personalized and student-centered approach is needed that addresses both strengths and weaknesses. In addition, most teachers argued that having a diagnosis of dyslexia is not necessary for their practice. They explained this situation with the statements that all literacy difficulties should be addressed individually and that the strategies used to meet various literacy needs are mostly based on the same principles.

As we know, teachers have an essential role in ensuring and increasing the academic success of dyslexic students. Teachers' attitude towards a disorder affects the quality of help and support they provide to the students. When teachers accept that dyslexia is a disorder rather than labeling dyslexic students as lazy or incompetent, they can realize students' strengths and create a positive environment to support them. For these reasons, there is a need for interventions that will increase teachers' knowledge level and awareness about dyslexia and change their negative perceptions and attitudes toward dyslexic students.

In recent years, dyslexia has been intensively explored in Türkiye. Many studies pay special attention to the neurological nature of dyslexia and its impact on the cognitive sphere. Less attention is paid to the problems caused by dyslexia in the psychological area and the effects of these problems. Moreover, most of the services for dyslexic students are aimed at providing them with skills such as reading, writing, mathematics and improving their academic performance. Psychological supports are neglected in services provided to dyslexic students, and these supports are not considered as important. Another noteworthy point is that most current research on dyslexia includes studies involving primary school children. Research involving parents, teachers, and peers of dyslexic students as participants is limited. Family members, schools, and students should be handled as a whole to increase the life quality of dyslexic students and improve their psychological health and academic success. Services offered to dyslexic students should be more comprehensive than services intended only for children and services aimed at acquiring academic skills. By focusing only on the academic improvement of dyslexic students, we cannot root out the problems brought by dyslexia. While addressing the issues around dyslexia, it is necessary to see the students, family members, and teachers as a whole.

Suggestions

Our analysis revealed the studies on dyslexia are mostly done with students in primary schools. It is thought that carrying out research with students in upper grades will be beneficial for understanding dyslexia as a disorder that does not disappear with age but accompanies and affects the student's functioning at every stage of his/her education. In addition, it was found that Turkish dyslexia studies mainly focus on teaching academic skills. Examining the psychological and social well-being of dyslexic students will contribute to enrich knowledge and formulate recommendations regarding the support system for this group of students. Besides identifying the problems and needs of the parents of dyslexic students, planning and implementing interventions to address these problems and needs can help us combat dyslexia. Teachers' level of knowledge about dyslexia, problems with dyslexic students, and their problem-solving skills are only selected issues that need to be thoroughly researched to find practical solutions. Dyslexia is a difficulty that affects dyslexic students, their parents, and teachers and has adverse effects in many developmental areas. Therefore, research studies in this area should be planned from an interdisciplinary perspective, so that we can understand dyslexia comprehensively from all dimensions.

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Yazarların Beyanı

Araştırmacıların katkı oranı beyanı: Araştırmacılar çalışmaya eşit oranda katkı yapmışlardır.

Etik Kurul Kararı: Bu makalede sunulan çalışmanın bir derleme çalışması olması nedeniyle etik kurul iznine gerek duyulmamaktadır.

Çatışma beyanı: Araştırmada yazarlar arasında ya da diğer kişi/kurum/kuruluşlarla herhangi bir çıkar çatışması bulunmamaktadır.

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