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School Refusal and Cognitive Behavioral Therapy: A Review

Okul Reddi ve Bilişsel Davranışçı Terapi: Bir Gözden Geçirme

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ABSTRACT

School refusal is a problem area that can turn into difficult trouble for the family, school, and students by affecting children and adolescents' academic and psychosocial development. This scoping review aims to examine the effectiveness of interventions based on the cognitive behavioral therapy approach on children and adolescents experiencing school refusal. The study was carried out following the "Standards Used in Reporting of Systematic Compilation and Meta-Analysis Results." For this purpose, the databases of DergiPark, Google Scholar, PsycARTICLES, PubMed, TR Index, and Web of Science were searched without any year restriction. As a result of the search, 233 studies were reached, and according to the inclusion criteria, ten research articles were evaluated. According to the findings, cognitive-behavioral interventions applied to children with school refusal: cognitive restructuring (n = 10, 100%), exposure (n = 10, 100%), psychoeducation (n = 6, 60%), social skills training (n = 6, 60%), problem solving training (n = 4, 40%), relaxation training (n = 4, 40%) and homework (n = 4, 40%) are predominantly used techniques. In 80% of the studies, it was determined that interventions based on the cognitive behavioral therapy approach to school refusal were effective. Parental involvement was also included in 80% (n = 8) of the studies, and 100% had effective results. Cognitive behavioral interventions are effective on school refusal as a result of the studies reviewed.
Keywords: School refusal, cognitive behavioral therapy, child, adolescent, intervention

ÖZ

Okul reddi, çocukların ve ergenlerin akademik ve psikososyal gelişimlerini etkileyerek aile, okul ve öğrenci için çözümlenmesi güç bir soruna dönüşebilen bir problem alanıdır. Bu gözden geçirme çalışmasının amacı, bilişsel davranışçı terapiye dayalı müdahalelerin okul reddi yaşayan çocuklar ve ergenler üzerine etkililiğini araştıran makaleleri incelemektir. Çalışma, "Sistematik Derleme ve Meta Analiz Sonuçlarının Raporlanmasında Kullanılan Standartlar" (Preferred Reporting Items for Systematic Reviews and MetaAnalyses) karar kriterlerine uygun şekilde gerçekleştirilmiştir. Bu amaçla, herhangi bir yıl kısıtlaması getirilmeden DergiPark, Google Akademik, PsycARTICLES, PubMed, TR Dizin ve Web of Science veri tabanları taranmıştır. Tarama sonucunda, 233 çalışmaya ulaşılmış, dahil etme kriterlerine göre 10 araştırma makalesi değerlendirmeye alınmıştır. Bulgulara göre okul reddi yaşayan çocuklara yönelik uygulanan bilişsel davranışçı müdahalelerde: bilişsel yeniden yapılandırma (n = 10, %100), maruz bırakma (n = 10, %100), psikoeğitim (n = 6, %60), sosyal beceri eğitimi (n = 6, %60), problem çözme eğitimi (n = 4, %40), gevşeme eğitimi (n = 4, %40) ve ev ödevi (n = 4, %40) teknikleri ağırlıklı olarak kullanılmaktadır. Çalışmaların %80'inde okul reddi üzerine yürütülen bilişsel davranışçı terapi yaklaşımına dayalı müdahalelerin etkili olduğu belirlenmiştir. Çalışmaların %80'inde (n = 8) ebeveyn katılımı da dahil edilmiş ve çalışmaların %100'ünde etkili sonuçlar elde edilmiştir. İncelenen çalışmalar sonucunda bilişsel davranışçı müdahalelerinin okul reddi üzerinde etkili olduğu görülmektedir.
Anahtar sözcükler: Okul reddi, bilişsel davranışçı terapi, çocuk, ergen, müdahale

Introduction

School is an institution where individuals provide many skills and gains in academic, social, and emotional fields and is critical for their development. Starting school is the official step taken by the child to become an individual from a safe and familiar family environment to the outside world. Although starting school can be a new and exciting process for children and their parents, this situation can also cause some children to experience intense difficulty refusing to go to school (Tonge et al. 2002, Keaney and Bates 2005, Kardaş et al. 2018).

Refusal to go to school or school refusal, which can be defined as difficulty in attending and staying in classes during the day, is a psychological problem that affects the inability of thousands of school-aged children to go to school every day (Kearney and Albano 2007, Gümüştaş et al. 2014). School refusal is a different school

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attendance problem than skipping school (Heyne and Sauter 2013, Erden et al. 2015), and it can cause a severe threat to the academic and social-emotional development of young people (Kearney 2001). Problems may be experienced due to school rejection in many different issues such as having difficulty in entering the school building or classroom, feeling excluded in the school environment, showing behavior contrary to the rules, anger crises, and family conflicts (Sarı 2020).

The literatüre states that 1% to 8% of school-aged children have difficulty attending school (Granell de Aldaz et al. 1984, Kirby 2018). When the prevalence rates of school refusal are examined in the international literature, it is reported that this problem is present in approximately 1% of all school-age children and 5% of all children referred to the clinic (Tonge et al. 2002). Although school refusal is equally common in boys and girls and occurs during school years, it is more common in the 5-7, 11, and 14 ages, corresponding to early education, school change, and the end of compulsory schooling (King et al. 1998, Berntein et al. 2000). However, it has a higher prevalence before and during adolescence than in early or middle childhood (Tonge et al. 2002). Although detailed data on school refusal rates in Turkey are not included in the literature, it is stated in previous studies that it is seen as a relatively common problem (e.g., Bahalı and Yolga Tahiroğlu 2010, Yellow 2020).

There are many opinions in the literature about the reasons for school refusal. Temperament, family effects, and school experiences are prominent causes the school rejection (King et al. 1999). Although school refusal is not a diagnostic disorder found in psychiatric classification systems such as the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, American Psychiatric Association [APA] 2013), it is typically characterized by a combination of separation anxiety disorder, specific phobia and depressive symptoms and associated with these diagnostic profiles (King and Bernstein 2001). Accordingly, school refusal is a behavioral pattern associated with different clinical disorders, contrary to being a clinical diagnosis (Kardaş et al. 2018). As a matter of fact, children exhibiting school refusal behavior show depressive symptoms such as irritability, crying, social withdrawal, difficulty concentrating and sleep disturbance, and experience emotional distress, reluctance to go to school, refusal or difficulty in staying in class during the school day (Kearney and Bates 2005, Maeda et al. 2019).

Berg et al. (1969) propose school refusal criteria to determine school refusal cases, and these criteria are included in the literature in a revised form by Berg (1997). Berg (1997) states that for school refusal, the student should meet the following criteria: (1) reluctance or refusal to go to school, which usually results in long-term absenteeism, (2) the child's staying at home, usually during school hours, without hiding their condition from their family, (3) emotional discomfort against the possibility of going to school, which may be seen as excessive fear, anger attacks, unhappiness or unexplained physical symptoms, (4) the absence of antisocial behavior other than the resistance of the child or young person against the parents' attempts to send them to school, (5) the efforts of the parents to ensure the attendance of the child to school.

When school refusal is evaluated by cognitive-behavioral theory (Strömbeck et al. 2021), it includes the child's and adolescent's irrational fears of attending school. Accordingly, children and adolescents may underestimate their ability to cope with anxiety-inducing situations by increasing the probability of anxiety-inducing situations occurring at school (Tonge et al. 2002). From an emotional and behavioral point of view, school refusal periodically includes school absences, missing classes, or coming to class late, as well as excessive insistence on parents and intense anxiety about school in order not to go to school (Last and Strauss, 1990), and secondary problems such as anxiety and fear become not only a result of absenteeism but also a cause of absenteeism (Erden et al. 2015, Maynard et al. 2018). According to these, it increases the risk of ending the child's education life early (Epstein and Sheldon 2002). For all these reasons, intervention against school refusal has critical importance.

Pharmacological treatments and psychosocial approaches are widely used in children and adolescents with school refusal behavior (Last et al. 1998, Melvin et al. 2016). Psychosocial approaches to school rejection include play therapy, family therapy, and cognitive-behavioral therapy (CBT). Among these, the most frequently evaluated approach for school refusal is CBT (King et al. 1998, Bahalı et al. 2009, Beidas et al. 2010, Melvin et al. 2016). Considering that anxious and depressed moods are essential elements of school rejection behavior, CBT is described as a relatively less time-consuming and economical intervention method (Tonge et al. 2002). As a matter of fact, CBT is effective in encouraging school attendance and reducing emotional symptoms (King et al. 1998, 2001, Last et al. 1998) and is considered an evidence-based approach in the treatment of anxious and depressed children and adolescents (Ferdon and Kaslow 2008, Silverman et al. 2008). In this context, CBT interventions on school refusal have been widely performed in recent years (Melvin et al. 2016, Strömbeck et al. 2021). When the CBT intervention examples in the literature are examined, it is seen in the studies that, in general, children, family, and school employees are included in the intervention process, the sessions progress

in a structured way, and the cognitive and behavioral techniques of CBT such as relaxation education, cognitive restructuring and exposure are frequently used (Fremont 2003, Melvin et al. 2016, Strömbeck et al. 2021).

As is known, psychological counseling and guidance graduates are primarily employed in schools and offer preventive and rehabilitative interventions for students' emotional and behavioral problems, especially school rejection (Erden et al. 2015). Determining current and effective interventions for school refusal will guide mental health professionals, especially school psychological counselors, who provide services in this regard. As a matter of fact, Maynard et al. (2018) consider it necessary to include families, educators, and other professionals for the interventions for school rejection to be intense and multifaceted. On the other hand, in the literature, it is emphasized that each student has a cost of $1,837 to the society if an individual is not a primary/secondary school graduate and does not have a high school degree as a result of school rejection and abandonment in Turkey (Bakırtaş and Nazlıoğlu 2021). For all these reasons, this study aims to examine the articles investigating the effectiveness of CBT-based interventions in Turkey and the world on children and adolescents experiencing school refusal. This research, which is aimed to draw attention to the CBT interventions carried out on school rejection in children and adolescents, examines the relevant research in detail and contributes to future studies by revealing a general profile of the studies in the national and international literature. For this purpose, answers to the following problems were sought within the scope of the research:

1. What are the methodological characteristics of CBT interventions carried out for children and adolescents who experience school refusal in the literature?
2. What is the effectiveness of CBT interventions on school refusal?
3. What are the contents and practices of CBT interventions that have been found to be effective in school refusal?:

Method

This study is a review study, which is of a review type, as it aims to examine the studies in the national and international literature on CBT interventions on school refusal in a comprehensive and detailed manner. Within the scope of the research, the "Preferred Reporting Items for Systematic Reviews and MetaAnalyses" ([PRISMA]), which provides detailed instructions for the reporting of the systematic review and meta-analysis studies to systematically compile related research based on validity and reliability, were taken as the basis as decision criteria (Page et al. 2021).

Within the scope of the research, research articles with full text in Turkish and English were scanned between September and December 2021. While conducting the research, no limitation was made according to the publication year of the articles. The articles in the study were obtained from the electronic databases of DergiPark, Google Scholar, PsychARTICLES, PubMed, TR Index, and Web of Science. A comprehensive literature review was conducted by scanning the keywords "school refusal and cognitive behavioral therapy," "school refusal and cognitive-behavioral intervention," and "school refusal and cognitive-behavioral treatment" in English and Turkish without limiting the title or summary.

Throughout the research, all the rules in the "Scientific Research and Publication Ethics Directive of Higher Education Institutions" were followed in the studies' selection process and data collection processes. The articles published in accessible refereed journals were examined, and the records were scanned in line with the inclusion criteria specified by the authors; the data were collected, and the studies deemed appropriate were included in the review by making the necessary examinations. One researcher carried out the screening process, and another researcher checked the validity of the coding, and a 100% consensus was reached. Inclusion criteria for the study: The fact that the publication languages of the studies are Turkish and English, the use of quantitative research methods from research techniques, and the use of CBT-based interventions from psychotherapy approaches for school refusal. Only studies using psychopharmacological treatment methods, studies using qualitative research methods, and those that do not use CBT as psychotherapy were excluded from this study. In addition, studies whose full text was not reached were not included in the study. As a result of the scanning with the determined keywords, 233 studies were achieved by limiting the databases of JournalPark (20 Results), Google Scholar (35 Results), PsychARTICLES (15 Results), PubMed (30 Results), TR Index (13 Results) and Web of Science (20 Results). By applying the inclusion and exclusion criteria, a total of 10 studies meeting these criteria were reached within the scope of the study, and this screening and evaluation process is shown in Figure 1 as the Prisma flow diagram. In 10 studies included, the sample, study patterns, purpose, interventions applied, measurement tools, therapy style (individual/group), session duration and frequency, and information on treatment effectiveness were focused on.

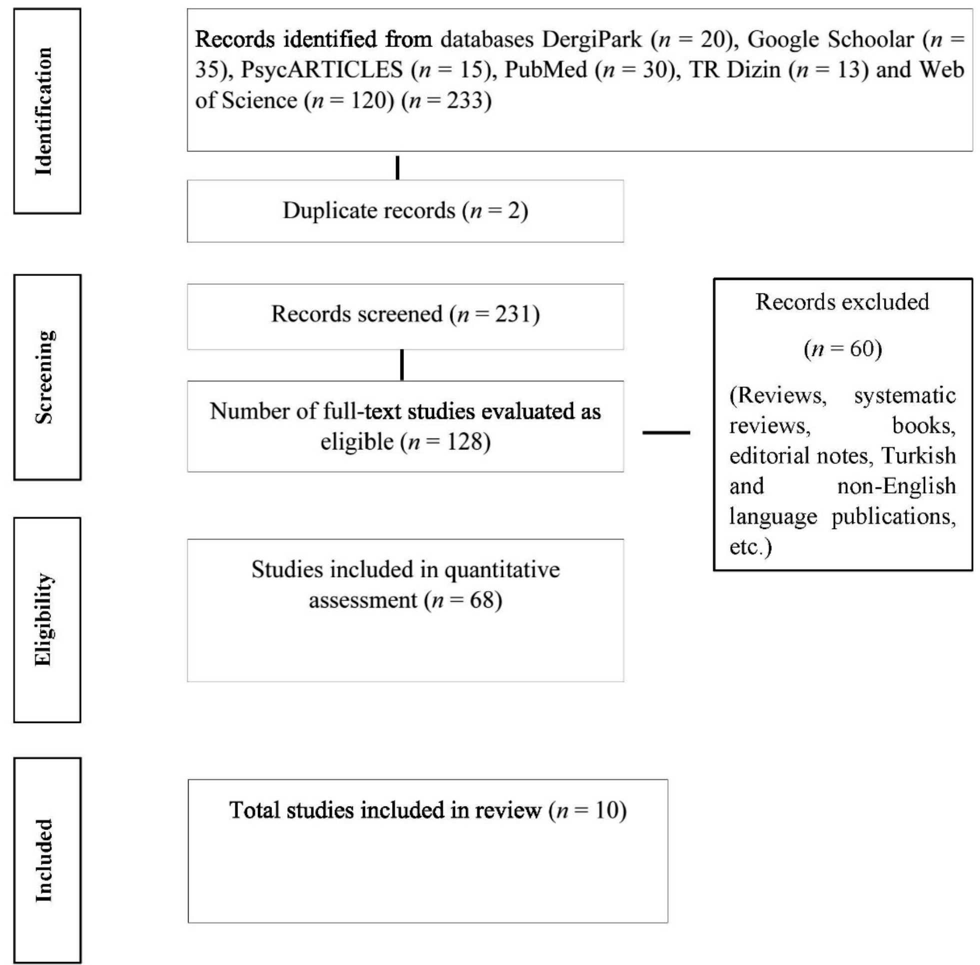

Figure 1. PRISMA flow chart

Results

The studies obtained as a result of the screening within the scope of the research were evaluated in line with the inclusion and exclusion criteria. As a result, ten studies were examined. The studies included in the study were assessed on the axis of the titles shown in Table 1 and summarized chronologically in Table 1.

Methodological Features of Studies

The articles included in the study were published between 1998 and 2021. While only three of the ten studies (30%) belonged to the 1990s, the remaining seven studies were published in 2000 and beyond.

Sample

The sample characteristics of the studies examined within the scope of the research were evaluated in terms of demographic characteristics. When assessed in terms of demographic characteristics, it was determined that the participants of the studies examined consisted of children and adolescents between the ages of 5-and 18 who exhibited school rejection behavior. In the studies, the sample size was 4 (Tolin et al. 2009) to 84 (Strömbeck et al. 2021). When the ratio of boys and girls is reviewed in the studies, it is seen that the number of boys and adolescents participating in the studies is higher than girls (70%, King et al. 1998, King et al. 1999, Beidas et al. 2010, Heyne et al. 2011, Maric et al. 2012, Melvin et al. 2016, Strömbeck et al. 2021). However, Last et al. (1998) included girls and boys equally in their studies in order to control the gender variable. In the studies examined, families, as well as children and adolescents included in the sample, were included in the studies (King et al. 1998, King et al. 1999, Bernstein et al. 2000, Heyne et al. 2011, Maric et al. 2012, Melvin et al. 2016, Strömbeck et al. 2021). Accordingly, 80% of the studies (n = 8) had parental participation. On the other hand, studies

include teachers and school staff of children and adolescents as participants (King et al. 1998, Maric et al. 2012). In two of the studies evaluated, it was detected that children who experienced school refusal were also diagnosed with an anxiety disorder (Last et al. 1998, King et al. 1999). However, in some studies, it was found that CBT and medication were carried out together (Bernstein et al. 2000, Melvin et al. 2016).

Table 1. Characteristics and main outcomes of studies on school refusal and cognitive behavioral therapy

Study	Sample (n, gender, age)	Groups	Measurements	Group or Individual	CBT Techniques	Session duration and frequency	Key Findings
King et al. (1998)	N = 34 5-15 years 16 girls 18 boys Parent (n = 17) Teacher (n = 16)	1. CBT group (n = 17) 2. Control group (n = 17)	Pretest-posttest-follow-up (three months)	Individual	*Social skills training, relaxation training, cognitive restructuring, thought bubbles and cartoons, imaginary confrontation, behavioral experiments, exposure, and rewards (child and adolescent) * Psychoeducation (for parents)	Four weeks 50 minutes Six sessions Parent: Four weeks 50 minutes Five sessions	At the end of four weeks of the CBT intervention, it was determined that those in the experimental group differed significantly in school attendance compared to the control group. In addition, there was a decrease in the levels of fear, anxiety and depressive emotions in the experimental group compared to self-report, parent, and teacher feedback.
Last et al. (1998)	N = 56 28 girls 28 boys 6-17 years old	1. CBT group (n = 28) 2. Training group (n = 28)	Pretest-posttest-follow-up (one year)	Individual	*CBT Group: Exposure, cognitive restructuring, problem-solving, and social skills training *Educational Support Group: Presentations, emotion diaries, supportive therapy environment	12 weeks 12 sessions Weekly 60 minutes	At the end of the study, in which the effectiveness of CBT in treating anxiety-based school refusal was investigated, it was revealed that the school attendance of the students in the experimental and education groups increased.
King et al. (1999)	N = 20 7 girls 13 boys 6-14 years	1. CBT group (n = 20) *No control group	Pretest-posttest-follow-up (three months)	Individual	*Cognitive restructuring, psychoeducation, thought bubbles, relaxation exercises, self-reward, social skills training, exposure	Child and adolescent: Four weeks Six sessions 50 minutes Parent: Four weeks Five sessions 50 minutes	There was an increase in school attendance levels and a significant decrease in anxiety levels after individual CBT sessions and parent/teacher training with children and adolescents with school refusal and anxiety disorder.
Bernstein et al. (2000)	N = 63 38 girls 25 boys 12-18 years	1.CBT + Medication (n = 31) 2. CBT + Placebo (n = 32)	Pretest-posttest	Individual & Group	*Parent participation for 10-15 minutes in each session to be informed about the weekly homework *Psychoeducation, individualized graded school re-entry plan (hierarchy of fear and avoidance), cognitive restructuring, functional self-talk, exposure, homework, behavioral contract, and rewards	Eight weeks Weekly 45-60 minutes	In adolescents with anxiety and major depressive disorder, CBT and medication (imipramine) were significantly higher in reducing anxiety and depression symptoms and increasing school attendance than in the CBT and placebo groups.
Tolin et al. (2009)	N = 4 13-15 years	1. CBT group (n = 4) *No control group	Pretest-posttest	Group	* Motivational interviewing, relaxation training, cognitive restructuring, social skills training, behavior rehearsal, exposure * Psychoeducation (for parents)	Three weeks Five times a week 15 sessions 90-120 minutes	It has been revealed that three out of four adolescents experiencing school refusal have increased school attendance.
Beidas et al. (2010)	N = 27 10 girls 17 boys 7-16 years	1. CBT group (n = 27) *No control group	Pretest-posttest-follow - up (three years)	Individual	* Cognitive restructuring, exposure, homework, rewards, and reinforcements	16- 20 sessions Weekly ? Duration	At the end of the CBT intervention, it was determined that CBT was effective on school refusal. It was also revealed that there was a significant decrease in the depression and anxiety levels of the students.
Heyne et al. (2011)	Adolescent: N = 20 6 girls 14 boys 10-18 years Parent: N = 32 19 mothers 13 fathers	1. CBT group (n = 20) *No control group	Pretest-posttest-follow up (two weeks)	Individual	*Psychoeducation (parent) *Cognitive restructuring, exposure, homework, problem-solving, stress management training (adolescent)	10-14 weeks Weekly One hour teenager and 30 minutes family	Twenty adolescents who met the criteria for anxiety disorder and refused school showed significant and continuous improvements in school attendance, school-related fear, and anxiety levels after treatment and their two-month follow-up.

Maric et al. (2012)	Adoles-cent: N = 19 13 boys 6 girls 12-17 years old	1. CBT group (*n* = 19) *No con-trol group	Pretest-post-test-follow up (two months)	Group	*Cognitiverestructuring, problem-solving skills, exposure	13 sessions 13 sessions (parent) Two ses-sions of psy-choeduca-tion with school staff	There was a significant increase in the school attendance levels of the adolescents, and their anxiety and fears about school decreased. It was also stated that there was a decrease in depressive emotions and internalization problems among adolescents. This CBT-based intervention found that self-efficacy mediated the increase in school attendance and the reduction in fear of going to school the next day in adolescents after treatment.
Melvin et al. (2016)	Adoles-cent: N = 62 29 girls 33 boys 11-16.5 years Parent ?	1. CBT+ Medica-tion (*n* = 21) 2. CBT + Placebo (*n* = 21) 3. CBT (20)	Pretest-post-test-follow-up (six months and 12 months)	Individual	*For adolescents: Progressive exposure, social skills training, problem-solving training, relaxation techniques, cognitive restructuring, developing positive self-talk *For parents: Psychoeducation	12 sessions per week 50-60 minutes	In the study, the effect of supplementing CBT with fluoxetine on the treatment process in adolescents with school refusal was investigated. It was determined that there was a significant increase in the level of school attendance after the CBT-based intervention in all three groups, and there was no significant difference between the treatment groups depending on whether or not to take medication.
Strömbeck et al. (2021)	Student: N = 84 26 girls 58 boys 10-17 years old Parent: N = 139 57% mothers 34% fa-ther	1. CBT group (*n* = 84) *No con-trol group	Pretest-post-test-follow - up (six months)	Individual	*For students: Skills training, cognitive restructuring, social skills training, graded school approach, exposure, be-havioral activation, and problem-solving training *For the family: Routines, psychoeduca-tion, and conflict reduction strategies	12 months total Evaluation phase (three to four weeks) Treatment phase (six-nine months) Mainte-nance phase (approxi-mately three months).	A pre-treatment, post-treatment, and six-month follow-up study were conducted with a CBT-based psychosocial intervention program for students with long-term school absenteeism. After the intervention proportion of those who never attended school were 76% before treatment, 41% after treatment, and 27% at follow-up. There was a significant decrease in anxiety and depression levels of students and parents after treatment and during follow-up.

Design of Studies

In all ten studies evaluated, research designs were used in which pre-test and post-test measurements were taken. The control group was used in four studies (40%). Among the four studies with a control group, three studies were randomized controlled studies (75%, Last et al. 1998, Bernstein et al. 2000, Melvin et al. 2016), while only one study was not a randomized controlled study (25%, King et al. 1998). While individual CBT was used in seven studies (70%, King et al. 1998, Last et al. 1998, King et al. 1999, Beidas et al. 2010, Heyne et al. 2011, Melvin et al. 2016, Strömbeck et al. 2021), two studies used CBT-based group therapy (20%, Tolin et al. 2009; Maric et al. 2012) and in one study, cognitive-behavioral individual therapy and group therapy were used together (10%, Bernstein et al. 2000).

Measurements and Measurement Methods

In the studies examined, the effectiveness of all interventions was evaluated with pre-test and post-test measurements. Follow-up measurements were made to determine the longer-term efficacy of the interventions in only two of the ten studies (20%; Last et al. 1998, King et al. 1999). It was determined that the follow-up measurements had a time interval ranging from two weeks to three years after the intervention. When we look at the studies, it was stated that follow-up measurements were made two weeks later in one study (Heyne et al. 2011), two months in another study (Maric et al. 2012), and three months later in two studies (King et al. 1998, King et al. 1999). In other studies, follow-up measurements were made after six months (Strömbeck et al. 2021), one year later (Last et al. 1999), and between six months and 12 months (Melvin et al. 2016).

Different measurement tools were used in the studies examined. Accordingly, some of the measurement tools directly investigated the symptoms of school rejection (e.g. Rejection Rating Scale [Kearney 2002], School Fear Thermometer [Heyne and Rollings 2002]) to investigate problems accompanying school rejection such as depression and anxiety (e.g. Revised Child Manifest Anxiety Scale [Reynolds and Richmond 1978]), and some of them to investigate the effect of school rejection on functionality (e.g. Global Improvement Scale [Gittelman Klein and Klein 1971]). In addition, measurement tools that evaluate the self-report of the child/adolescent as well as the notifications of the clinician, family, and teachers were used in the studies while assessing the symptoms of school refusal (e.g. Child Behavior Checklist [Achenbach and Edelbrock 1983]).

Content and Features of CBT

CBT Techniques

When the studies were evaluated in terms of the CBT techniques used, it was found that exposure (100%, n = 10), psychoeducation (60%, n = 60), relaxation education (40%, n = 4) and cognitive restructuring (100%, n = 10) were among the most frequently used methods. Unlike other studies, emotion diaries were used in one study (10%, Last et al. 1998), stress management training was used in another study (10%, Beidas et al. 2010), and motivational interviewing techniques were used in one study (10%, Tolin et al. 2009).

Features of Sessions

The characteristics and numbers of CBT sessions applied in the studies examined were examined. In 30% of the studies (n = 3; Beidas et al. 2010, Maric et al. 2012, Strömbeck et al. 2021), it was determined that detailed information about the sessions was not included. However, in the generally reviewed studies, the individual CBT session durations were 50 minutes (e.g. King et al. 1998) and 60 minutes (e.g. Melvin et al. 2016). In cognitive-behavioral group sessions, the duration was 90 to 120 minutes (Tolin et al. 2009). When the sessions were evaluated in terms of frequency, it was determined that individual and group CBT sessions were held once or twice a week in most of the studies. Considering all of the studies, at least six sessions (e.g. King et al. 1998, King et al. 1999) and up to 20 sessions (Beidas et al. 2010).

Findings of the Studies

Intergroup Comparisons

When six studies investigating the effectiveness of both cognitive-behavioral individual therapy and cognitive-behavioral group therapy and not using the control group were examined separately, statistically significant results were found for school rejection in all studies (100%, King et al. 1999, Tolin et al. 2009, Beidas et al. 2010, Heyne et al. 2011, Maric et al. 2012, Strömbeck et al. 2021). In a study comparing the CBT and control groups (King et al. 1998), it was determined that the CBT group showed statistically significantly more effective results than the control group. In another study involving CBT and the designed training group (Last et al. 1998), on the other hand, it was found that there was no statistically significant difference between the two groups after the intervention. In another study comparing CBT with medication and placebo groups (Bernstein 2000), it was revealed that CBT and medication groups were superior to the other group. In the study of Melvin et al. (2016), it was found that there was no statistically significant difference between CBT, CBT+medication, and CBT and placebo groups in terms of results.

Change in Symptoms

In all ten studies examining the effectiveness of CBT, it effectively reduced school rejection symptoms. However, in a study comparing CBT and the control group, CBT was found to be more effective in reducing school refusal symptoms than the control group (King ve ark. 1998), while in another study involving the CBT and placebo groups, the two groups were found to be equally effective in reducing symptoms (Last et al. 1998). In another study, it was found that medication added to CBT was more effective in the intervention (Bernstein et al. 2000), while in another study (Melvin et al. 2016), placebo and medication groups were added to CBT, and CBT was equally effective in reducing school refusal symptoms.

Comorbid Issues

In two of the studies evaluated within the scope of the research (Last et al. 1998, Heyne et al. 2011), the effect of CBT interventions on problems accompanying school rejection, such as anxiety and depression, on these problems was also examined. Accordingly, in the studies mentioned, it was determined that CBT showed effective results in reducing anxiety and depressive symptoms in children and adolescents, similar to school rejection (Heyne et al. 2011, Last et al. 1998).

Discussion

As a result of this study, in which the studies measuring the effectiveness of CBT-based practices on school refusal were reviewed, it is seen that CBT is a valid and widely used approach that affects school refusal. When the ten studies examined within the scope of the research were evaluated, it was seen that the studies without control or comparison groups, the studies with medication or other training program comparison groups, and

the studies with CBT and control groups could be divided into three groups in general. In other words, the comparisons in the studies were made with medication (Bernstein et al. 2000, Melvin et al. 2016) and alternative education groups (Last et al. 1998). On the other hand, it was determined that individual CBT interventions were predominant in the studies. Considering that the progressive exposure technique is used in all interventions upon school refusal, it is thought that an individual-specific intervention study is frequently preferred to ensure school attendance. On the other hand, considering that students can experience school refusal at different times outside of the school starting process and the characteristics of children, such as the presence of familial problems, may differ, the emphasis on individual studies may arise from these situations.

When the findings of the studies are evaluated, it is seen that individual or group CBT interventions give effective results (80%). Considering that only one study (King et al. 1998) among the studies with a control group was conducted with random assignment, it can be stated that the relevant research has high representative power. In studies without a control or comparison group, CBT was also influential on school rejection (King et al. 1999, Tolin et al. 2009, Beidas et al. 2010, Heyne et al. 2011, Maric et al al. 2012, Strömbeck et al. 2021). In one of the studies comparing medication and CBT interventions, it was found that the combination of medication and CBT were more effective (Bernstein et al. 2000), while in another study (Melvin et al. 2016), it was found that CBT alone was equally effective with medication+CBT intervention. In a study comparing the effect of an education group designed with CBT intervention on school rejection (Last et al. 1998), it is noteworthy that there was no significant difference between the two groups and that it was equally effective in both groups. However, there was no study comparing the effectiveness of CBT on school refusal with different therapy schools/approaches, except for a psychoeducation group designed as in the study of Last et al. (1998). This situation suggested a need for new studies evaluating different therapy schools/approaches to school rejection.

When the studies evaluated within the scope of the research are examined in terms of CBT techniques used, it is seen that similar techniques are generally applied; psychoeducation, relaxation education, social skills education, homework, awards and reinforcements, and cognitive restructuring are predominantly used. Another important aspect is the inclusion of parent and school personnel participation in interventions on school refusal. It is considered significant in the ecological system theory (Bronfenbrenner 1992) that children and adolescents are put into practice by considering family, school, and student cooperation in ensuring school attendance. As a matter of fact, it can be said that obtaining effective results on school refusal in studies with family and/or school participation (King et al. 1999, Bernstein et al. 2000, Heyne et al. 2011, Melvin et al. 2016, Maric et al. 2021, Strömbeck et al. 2021) increases the cooperation between different microsystems and ensures integrity and inclusiveness, as well as confirming the validity of the theory.

When the duration of the therapies in the studies was examined, it was determined that a maximum of 20 sessions were applied (Beidas et al. 2010), although they had different lengths. However, the effective results on school refusal even in six sessions of CBT interventions (King et al. 1998, King et al. 1999) reveal the short-term impact of CBT on school refusal. Again, the fact that the samples consisted of girls, boys, and children in different age groups from five (King et al. 1998) to 18 years old (Bernstein et al. 2000) suggests that the CBT approach is an effective intervention method for children and adolescents, regardless of gender and age.

In eight (80%) of the studies examined within the scope of the research, follow-up studies were conducted after the treatment process, but it was observed that there were no follow-up studies in two (20%) of them. Conducting follow-up studies after the CBT intervention not only provides the opportunity to evaluate the school attendance status of children and adolescents but also provides an opportunity to evaluate the effectiveness of the techniques and skills that children and adolescents can use in their daily lives, such as problem-solving training, social skills training, and relaxation training, to what extent they continue to be used after the therapy. However, the absence of a post-therapy follow-up study in the two relevant studies (Bernstein et al. 2000, Tolin et al. 2009) is considered a limitation.

Another finding of this study is that when the studies on school refusal and CBT are examined, no research based on quantitative research patterns can be reached from Turkey. In the national literature, compilation studies (Lüleci 2015, Kardaş et al. 2018) and case studies (Erden et al. 2015). Again, no study systematically compiling national and international literature on school refusal and CBT has been found. It can be said that this research will contribute to the Turkish literature in describing the current situation and showing the need for research on the subject. As is known, according to the statistics of the Ministry of National Education (MEB 2019), there are a total of 18,241,881 students studying formal education in 2019-2020. In this sense, it is thought that there is a great need for studies on the subject to maintain the adaptation and school attendance of the intensive and dynamic population continuing school life in Turkey.

This study has some limitations. First, only quantitative studies were included in the review to obtain evidence-based research results, and ten studies were reached. However, since the search words were Turkish and English, only the studies conducted in these publication languages and related databases were reached. In future studies, databases can be diversified, and the scope of the study can be expanded to include languages other than Turkish and English. Finally, since this study was not conducted in a systematic review type, bias risk, impact measurements, synthesis methods, and precision evaluation methods could not be examined in the studies evaluated. With the spread of experimental studies in the field of school dropout, meta-analysis studies can be carried out in future studies.

Conclusion

In this systematic review, it was aimed to evaluate the effectiveness of CBT interventions on school rejection. Within the scope of the research, ten studies complying with the determined criteria were reached. In the studies, it is seen that CBT-based practices are an effective method of school rejection. Moreover, medication and CBT interventions have been evaluated to increase the effect even more when administered together. As a result of this research, it was determined that the studies on CBT interventions on school refusal in Turkey were carried out in a qualitative pattern. Considering that culture may be a confusing factor that may affect the effectiveness of interventions applied to children (Yellow 2015), it is thought that there is a need to conduct CBT-based quantitative and mixed pattern studies on school rejection in the sample of Turkey. In this context, CBT interventions can be carried out for students at all levels of education, which exhibit different cultural characteristics, especially in terms of school rejection and school dropout, and the effectiveness of these studies can be tested.

School counselors, who work in the field of psychological counseling and guidance, especially at pre-school, primary school, secondary school, and high school levels, can include CBT techniques and approaches in their studies to ensure adaptation to school as mental health workers, to increase students' subjective well-being at school and to strengthen their mental health. Different techniques and materials in CBT can be used with children and adolescents in the school setting. Similarly, group guidance activities based on CBT can benefit children's psychosocial development.

In conclusion, with this study, it was determined in the literature on school refusal that CBT is most effective in both female and male students (Beidas et al. 2010, Strömbeck et al. 2021); it can be used in students between the ages of 5 and 17 (King et al. 1998, Maric et al. 2012), similar results are obtained with medication (Melvin et al. 2016), and the success of treatment increases when applied together with medication (Bernstein et al. 2000). As a matter of fact, it is emphasized in the literature that CBT is the approach with the most empirical support among the psychosocial interventions for school refusal (e.g. Tonge et al. 2002, Lee 2019). In future studies, it is essential to investigate the effectiveness of interventions other than CBT and to conduct studies comparing the efficacy of CBT and different therapy approaches to increase intervention alternatives on school refusal.

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