

## Effectiveness of the Turkish Version of “First Step to Success Program” in Preventing Antisocial Behaviors\*

## Antisosyal Davranışları Önlemeye Yönelik “Başarıya İlk Adım Programı” Türkçe Versiyonu’nun Etkililiği

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The purpose of this study was to examine the effectiveness of the Turkish version of the First Step to Success (TFSS) early intervention program on problem behaviors, social skills, and academic competence of at-risk students for antisocial behaviors in Turkey. Participants consisted of a total number of 102 students (53 students in experimental and 49 students in control group) and experimental group students’ teachers and mothers. Experimental group students were subjected to implementation of TFSS while control group students were not. Results revealed significant differences between the scores of two groups on problem behaviors and social skills. Moreover, significant decreases in experimental group students’ problem behavior scores and significant increases in their social skills and academic competence scores were observed. High levels of satisfaction were reported by experimental group students’ teachers and mothers. Results are being discussed.

*Keywords:* First Step to Success, Antisocial behavior, Early intervention, Young children, Prevention.

*Öz*

Bu çalışmanın amacı, Başarıya İlk Adım Programı Türkçe Versiyonu’nun (BİA-TV) antisosyal davranışlar açısından riskli olan öğrencilerin problem davranışları, sosyal becerileri ve akademik yeterlilikleri üzerindeki etkililiğini incelemektir. Çalışma 53’ü deney ve 49’u kontrol grubunda olmak üzere 31’i anasınıfından 37 birinci sınıf ve 34’ü ikinci sınıftan 102 öğrenciyle gerçekleştirilmiştir. Deney grubu öğrencileri ile BİA-TV programı uygulanırken, kontrol grubu ile herhangi bir uygulama gerçekleştirilmemiştir. Bulgular iki grubun problem davranışları ve sosyal beceri puanları arasında anlamlı farklılıklar olduğunu göstermiştir. Programın deney grubu öğrencilerinin problem davranışlarında anlamlı düşüşe, sosyal beceri ve akademik yeterlilik puanlarında anlamlı artışa yol açtığı gözlenmiştir. Katılımcıların öğretmenleri ve annelerinin memnuniyet düzeyleri yüksek bulunmuştur. Bulgular tartışılmıştır.

*Anahtar Sözcükler:* Başarıya ilk adım, antisosyal davranış, erken müdahale, küçük çocuklar, önleme.

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## Introduction

As stated by Walker, Colvin, and Ramsey, (1995: 6) "*Children who grow up antisocial are at severe risk for a host of long-term, negative, developmental outcomes, including school dropout, vocational adjustment problems, drug and alcohol abuse, relationship problems, and higher hospitalization and mortality rates. If antisocial behavior pattern is not changed by the end of grade 3, it should be treated as a chronic condition, much like diabetes. That is, it cannot be cured but can be managed with the appropriate supports and continuing interventions.*" If not dealt earlier, antisocial behavior patterns may become more complex and destructive over time and have been perceived as the best predictors of delinquent and violent behavior years later (Patterson, Reid, & Dishion 1992). Therefore, the earliest possible intervention or prevention considering three primary settings (home, school and playground) and the key social agents (parents, teachers, and peers) within these settings has been identified as a necessity to deal efficiently with antisocial behavior patterns (Walker, Ramsey, & Gresham, 2004). In the reviews of prevention programs for children with antisocial behaviors (e.g., Joseph & Strain 2003; Kashani, Jones, Bumby, & Thomas 1999; Leff, Power, Manz, Costigan, & Nabors 2001), only a few programs including family, school, and community have been considered somewhat effective in decreasing the number of risk factors associated with antisocial behaviors and increasing the overall well-being of children and adolescents. Among these programs, the *First Step to Success (FSS)* early intervention program has been found and suggested as one of the effective prevention programs that reported positive effects for at-risk antisocial children.

The FSS is an early intervention program designed for at-risk kindergarteners through second graders who indicate noticeable signs of antisocial behavior patterns. By aiming to achieve the secondary prevention goals, the FSS has three interrelated components (Screening, CLASS, and HomeBase) and is a collaborative home and school intervention program including parents into the program as partners with the school in teaching appropriate behavior patterns to at-risk child. Screening and early identification module of the program provides different screening options to identify target students while school intervention component called CLASS focuses on teaching adaptive behavior patterns for fostering school success. The third component, parent component called HomeBase, is aiming at teaching parents how to develop and strengthen their child's school success skills. HomeBase contains a six-week parent implemented social skills program. Each week covers a different social skills (e.g., cooperation, accepting limits, sharing, doing one's work, and so forth).

A series of studies explored the effectiveness and social validity of the FSS in both the US and Turkey (Diken, Cavkaytar, Batu, Bozkurt, & Kurtyilmaz, 2009; Diken & Rutherford 2005; Golly, Sprague, Walker, Beard, & Gorham 2000; Golly, Stiller, & Walker 1998; Overton, McKenzie, King, & Osborne 2002; Ozdemir, 2005; Perkins-Rowe, 2001; Walker, Kavanagh, Stiller, Golly, Severson, & Feil, 1998). In sum, the results of these studies pointed out that the program generated strong positive treatment effects for problem behaviors, social skills, and academic engagement time of the majority of at-risk children with antisocial behavior patterns. Social validity of the program (high levels of satisfaction with the program) has been established by gathering participants' opinions in these studies. In order to establish international evidence-base of the FSS, additional studies are needed. Therefore, this study further examined the efficacy of the program to extend the effectiveness and validity of the program with children from diverse cultural backgrounds.

In Turkey, a dramatic increase in the number of school cases including aggressive and disruptive behaviors at both elementary and high schools has been reported in media and research studies (e.g., Cinkir, 2006; Eke & Ogel, 2006; Ozcebe, Uysal, Soysal, Polat, Şeker, & Uner, 2006; Piskin, 2006; Yurtal & Cenkseven, 2006) and recognized by the Ministry of National Education. To summarize the results of the studies conducted in public elementary and high schools regarding aggressive and disruptive behaviors in Turkey, recent dramatic negative changes at Turkish schools have been reported in these studies. For example, violence among students at schools has been increasing. At the same time, bullying has been one of the most important problems at

Turkish schools. At least one out of three students has been bullied by the other students. And also, fights have been found common among current elementary and high school students in Turkey. Therefore, with the alarming increase of the number of students with antisocial or destructive behaviors in the public schools in Turkey, prevention of antisocial behaviors has been a growing concern for educators and policy makers over the past decade. For these reasons, the Ministry of National Education in Turkey put a great emphasize to prevent the challenging behaviors before they occur. However, these efforts focus on prevention efforts which have not been systematic and intensive to deal with such complex behaviors. Therefore, there is a great need for intensive, systematic, evidence-based, positive behavior support programs in Turkey to prevent antisocial behaviors at schools. For this reason, as part of a The Scientific and Technological Research Council of Turkey (TUBITAK) supported grant, the First Step to Success Program developed in the US was translated and adapted into Turkish in order to be used in Turkish schools as a sound behavioral intervention program. As main study of this project, the purpose of the current study was to explore the effectiveness of the First Step to Success program with kindergarten, first and second grade students in Turkey. Following questions were addressed: (1) Is there a significant difference in the problem behavior, social skills and academic competence scores for experimental and control group, while controlling for their pre-test scores?, (2) Is there a significant change in the problem behavior, social skills and academic competence scores of targeted students from pre-intervention to post-intervention?, and (3) Is the FSS program a socially valid program based on ratings of targeted teachers and mothers?

## Method

### *Participants*

This study was conducted in 31 kindergarten, 37 first-grade, and 34 second-grade classrooms of 19 K-8 elementary schools in Eskisehir in Turkey during 2008-2009 school year. Schools were contacted by Eskisehir Guidance and Research Center whether there were at-risk students for antisocial behaviors in their kindergarten, first and second grade classrooms. The ones reported having these students and were willing to participate the study were chosen as part of the study. After using teacher ranking system (screening module of the TFSS) targeted students were identified. Students were matched based on the same level of class and being identified as at-risk by their teachers using raking system of problem behaviors. Then, classrooms and students were randomly assigned into two groups: experimental and control groups. Experimental group as targeted students who are at-risk for antisocial behaviors included 16 kindergartens, 19 first-grade, and 18 second-grade classrooms while control group included 15 kindergarten, 18 first-grade, and 16 second-grade classrooms. A total of 102 students participated in the study. Out of 102 students, 53 students were part of experimental group and 49 students were part of control group. Experimental group students (targeted students) included 43 male and 10 female students. None of them had any disability or referred for further examination at the time the study was conducted whereas control group students included 42 male and 7 female students. In addition, observations of behaviors of targeted students in classroom and on playground were also conducted by school counselors (as the First Step Coaches) in order to make sure students were appropriate for the FSS program. Students' teachers and mothers and school counselors were also other participants of the study. A total of 102 classroom teachers (53 experimental and 49 control group teachers), 53 mothers of targeted students, and 19 school counselors participated in the study.

### *Experimental Design*

Pretest-Posttest Experimental Design with Control Group was used in the study. Experimental group received the FSS intervention while control group was not part of this intervention.

*Independent Variable*

The FSS early intervention program was the independent variable of the study. The FSS program was designed at-first for at-risk kindergarteners through second grade students who show signs of developing antisocial behaviors; then, was adapted to at-risk preschool students. Three major social agents (parents, teachers, and peers) of at-risk child for antisocial behaviors play important roles during the implementation of the program (Walker et al. 1997). First Step Screening, First Step School Intervention Program: CLASS (Contingencies for Learning Academic and Social Skills), and First Step Home Intervention Program: HomeBase are three interrelated modules of the FSS program. As part of TUBITAK (Project number: 106K265) supported project, the FSS program were translated and adapted into Turkish. On adaptation of the FSS program, the original program with three modules was kept the same with minor language and cultural modifications. For example, the FSS program was divided into some booklets. The first booklet included general information on the FSS, the second booklet was about screening module of the FSS. The screening booklet included screening options except for the ESP option of the original FSS program. The third booklet included information on CLASS intervention module of the FSS program. The fourth and fifth booklets were on HomeBase module of the FSS; the fourth for the First Step coach and the fifth for parents on how to implement the HomeBase module at home. On HomeBase modules, some activities as part of the HomeBase were modified and changed because of language and cultural issues of the activities. Some activities replaced with more appropriate activities in Turkish culture could be carried out at home. In addition to these original modules of the FSS, a new booklet for teachers and parents was also included into the Turkish adaptation of the FSS program. The booklet contained practical information (practical strategies with examples) on how to deal with problem behaviors at home and school contexts.

*Instruments*

*Turkish Version of Social Skills Rating System (TSSRS):* Social Skills Rating System (SSRS) developed by Gresham and Elliot (1990) was translated and studied in Turkish by Sucuoglu and Ozokcu (2005). The SSRS allows obtaining a more complete picture of social behaviors from teachers, parents, and even students themselves and evaluates a broad range of socially validated behaviors-behaviors that affect teacher-student relationships, peer acceptance, academic performance, and more. The original and Turkish version of the SSRS includes three scales: Social Skills, Problem Behaviors, and Academic Competence scales. The reliability of the Social Skills scale was re-assessed for this study by checking Cronbach alpha and found as .89 for Social Skills scale, .78 for Cooperation subscale, .86 for Assertion subscale, and .78 for Self-control subscale. These results suggest that Social Skills scale and its subscales are reliable enough to be used in this study. The reliability of the Problem Behaviors scale was also re-assessed by using the same data collected from the participant teachers on participant students' behaviors for this study by checking Cronbach alpha and found as .80 for Problem Behavior scale, .71 for Internalizing subscale, .81 for Externalizing subscale. These results also suggest that Problem Behavior scale and its subscales are reliable enough to be used in this study. Finally, for the current study, the reliability of academic competence scale was also re-assessed by checking Cronbach alpha and found as .95. This result also suggests that this scale is a reliable one to be used in this study.

*Social Validity Form:* In order to examine social validity of the FSS program, a social validity form was developed by the researchers. Social validity data were collected from targeted teachers and mothers. Based on a five point-likert-type scale (From 1=strongly disagree to 5=strongly agree), targeted teachers and parents were rated statements regarding the use and effectiveness of the FSS program (See Table 3 and 4).

*Intervention Procedures*

The first author of this study, who had previously received training at the Institute on Violence and Destructive Behavior at the University of Oregon in implementing the FSS program,

provided training to the First Step Coaches of the program, who were school counselors at the schools of targeted students. At this training, the First Step 20-minute videotape was used and, in addition, all materials regarding the FSS implementation were provided to them. Questions before starting the FSS program were answered and issues were clarified. After the screening and identifying targeted students, pre-test data (qualitative and quantitative) were collected. Then, the FSS program started based on the program guidelines indicated at the program. As stated before the program has three interrelated modules. While the first module helps to identify the targeted students, First Step School Intervention Program: CLASS (Contingencies for Learning Academic and Social Skills) module requires 30 school days implemented successfully, and First Step Home Intervention Program: HomeBase module which also requires 6 weeks to implement by parents at their homes. As soon as the program ended for each child, post-test data were collected on the targeted participants.

#### *Treatment Integrity (Procedural Reliability)*

Treatment integrity data were also collected in order to examine the reliable implementation of the FSS program by the First Step Coaches and classroom teachers. Based on the FSS program guidelines indicated at the program, a checklist was prepared to examine the treatment integrity. Data collectors, who were graduate students at graduate program for teaching individuals with mental retardation and were trained on the project, used this form to assess treatment integrity of the FSS implementation. Treatment integrity data were collected from both the First Step Coaches and classroom teachers at least 3 % of the total implemented program days. The number of program days in which conditions were administered as intended were divided by total of program days, and then multiplied by 100 to find the percentage of treatment integrity for both coaches and teachers. Results indicated that the percentages of treatment integrity ranged from 83.7% to 100% with a mean of 93.3% for kindergarten teachers of targeted students, 66% to 98.8 with a mean of 86.2% for first-grade teachers of targeted students, and 76.7% to 100% with a mean of 90% for second grade teachers of targeted students. Results also indicated that the percentages of treatment integrity ranged from 40% to 100% with a mean of 91.53% for First Step Coaches.

### Results

Differences in problem behavior, social skills, and academic competence scores for experimental and control group, while controlling for their pre-test scores

One-way between groups analysis of covariance (One-way ANCOVA) was conducted to examine the differences in problem behavior, social skills, and academic competence scores for experimental and control group. More specifically, one-way ANCOVA was run separately for problem behavior scores (externalizing and internalizing), social skills scores (cooperation, assertion, and self-confidence), and academic competence. The independent variable was the implementation of the FSS while pre-test scores on the TSSRS were used as the covariate.

After checking preliminary checks and adjusting for pre-intervention scores, there was a significant difference between the two groups in post-intervention scores on general problem behaviors ( $F(1,99)=28.2, p=.00, \text{partial } \eta^2=.23$ ). Moreover, with a medium effect size, there was a significant difference between the pre-intervention and post-intervention scores on the problem behavior scale of the TSSRS, as indicated by a partial eta squared value of .37 ( $F(1,99)=59.1, p=.00$ ). When we examined the the difference on the subscales of problem behavior scale, results indicated that there was a significant difference between the two groups on post-intervention scores of externalizing behavior scale ( $F(1,99)=34.3, p=.00, \text{partial } \eta^2=.26$ ) and internalizing behavior scale ( $F(1,99)=8.06, p=.00, \text{partial } \eta^2=.07$ ). Moreover, with a medium effect size, there was a significant difference between the pre-intervention and post-intervention scores on the externalizing behavior scale, as indicated by a partial eta squared value of .46 ( $F(1,99)=85.6, p=.00$ ) and on the internalizing behavior scale, as indicated by a partial eta squared value of .30 ( $F(1,99)=8.1, p=.00$ ).

Results also revealed that there was significant difference between the two groups in post-intervention scores on general social skills ( $F(1,99)=13.9$ ,  $p=.00$ , partial eta squared=.12). Moreover, with a small effect size, there was a significant difference between the pre-intervention and post-intervention scores on the general social skills scale of the TSSRS, as indicated by a partial eta squared value of .18 ( $F(1,99)=21.5$ ,  $p=.00$ ). When we examined the the difference on the subscales of social skills scale of the TSSRS scores, results indicated that there was a significant difference between the two groups on post-intervention scores of cooperation ( $F(1,99)=11.1$ ,  $p=.00$ , partial eta squared=.10), assertion ( $F(1,99)=9.7$ ,  $p=.00$ , partial eta squared=.09), and self-control ( $F(1,99)=20.5$ ,  $p=.00$ , eta squared=.17),. Moreover, with a medium effect size, there was a significant difference between the pre-intervention and post-intervention scores on the cooperation scale, as indicated by a partial eta squared value of .34 ( $F(1,99)=50.7$ ,  $p=.00$ ). With a samall effect size, there was also a significant difference both on the assertion scale, as indicated by a partial eta squared value of .14 ( $F(1,99)=16.7$ ,  $p=.00$ ), and on the self-control scale, as indicated by a partial eta squared value of .11 ( $F(1,99)=11.8$ ,  $p=.00$ ).

Results revealed also that there was no significant difference between the two groups in post-intervention scores on academic competence ( $F(1,99)=50.8$ ,  $p=.21$ , partial eta squared=.01). Table 1 presents the results of one-way ANCOVA for general problem behaviors, externalizing behaviors, internalizing behaviors, general social skills, cooperation, assertion, self-control, and academic competence.

Table 1.

*One-way ANCOVA Results for Experimental and Control Groups on Problem Behavior, Social Skills, and Academic Competence Scales of TSSRS*

Dependent Variable	Source	df	F	p	Partial Eta Squared	Experimental Group (N=53)		Control Group (N=49)	
						EMM*	SD**		SD
General Problem Behaviors						13.35	.68	18.53	.71
	Pre-test total	1	59.14		.37				
	Group	1	28.20		.22				
Externalizing Behaviors						10.05	.50	14.30	.52
	Pre-test total	1	85.59		.46				
	Group	1	34.27		.26				
Internalizing Behaviors						3.22	.27	4.32	.28
	Pre-test total	1	41.88		.30				
	Group	1	8.06		.08				
General Social Skills						34.88	1.32	27.71	1.38
	Pre-test total	1	21.50		.18				
	Group	1	18.92		.12				
Cooperation						12.09	.54	9.47	.56
	Pre-test total	1	50.68		.34				
	Group	1	11.17		.10				
Assertion						14.27	.56	11.61	.61
	Pre-test total	1	16.71		.14				
	Group	1	9.71		.09				
Self-control						8.58	.37	6.12	.39
	Pre-test total	1	11.87		.11				
	Group	1	20.46		.17				
Academic Competence						27.89	.78	26.48	.81
	Pre-test total	1	170.04		.63				
	Group	1	1.58	.21	.01				

*Note.* \*EMM= Estimated Marginal Means, \*\*SD=Standard Deviation, \*\*\*p<.05

*Differences in problem behaviors, social skills and academic competence scores of targeted students*

A series of paired-samples t-tests were carried out to explore the impact of the TFSS on problem behaviors, social skills, and academic competence of targeted students as measured by the TSSRS. As indicated in Figure 1, based on ratings of teachers of targeted students, targeted students showed significant decreases on problem behaviors, and improvements on social skills, and academic competence. More specifically, results indicated that there were significant decreases in general problem behavior scores from pretest (M=18.87, SD=4.91) to posttest (M=13.33, SD=5.67),  $t(52)=7.40$ ,  $p=.00$ ,  $p<.05$ , in externalizing behavior scores from pretest (M=14.95, SD=3.88) to posttest (M=10.29, SD=4.57),  $t(52)=8.98$ ,  $p=.00$ ,  $p<.05$ , and in internalizing behavior scores from pretest (M=3.91, SD=2.19) to posttest (M=3.04, SD=2.20),  $t(52)=2.83$ ,  $p=.00$ ,  $p<.05$ . The eta squared statistics were found as .51 (large effect size) for general problem behaviors, .61 (large effect size) for externalizing behaviors, and .13 (small effect size) for internalizing behaviors. Results also revealed that there were significant improvements on general social skills scores from pretest (M=26.57, SD=8.80) to posttest (M=35.65, SD=9.41),  $t(52)=-6.26$ ,  $p=.00$ ,  $p<.05$ , in cooperation scores from pretest (M=8.72, SD=4.04) to posttest (M=12.19, SD=4.62),  $t(52)=-5.86$ ,  $p=.00$ ,  $p<.05$ , in assertion scores from pretest (M=11.21, SD=4.08) to posttest (M=14.59, SD=3.99),  $t(52)=-5.32$ ,  $p=.00$ ,  $p<.05$ , in self-control scores from pretest (M=6.27, SD=2.60) to posttest (M=8.74, SD=2.36),  $t(52)=-5.97$ ,  $p=.00$ ,  $p<.05$ , and in academic competence scores from pretest (M=25.33, SD=8.62) to posttest (M=28.59, SD=8.74),  $t(52)=-3.89$ ,  $p=.00$ ,  $p<.05$ . The eta squared statistics were found as .44 (medium effect size) for general social skills, .39 (medium effect size) for cooperation, .35 (medium effect size) for assertion, .40 (medium effect size) for self-control, and .23 (small effect size) for academic competence.

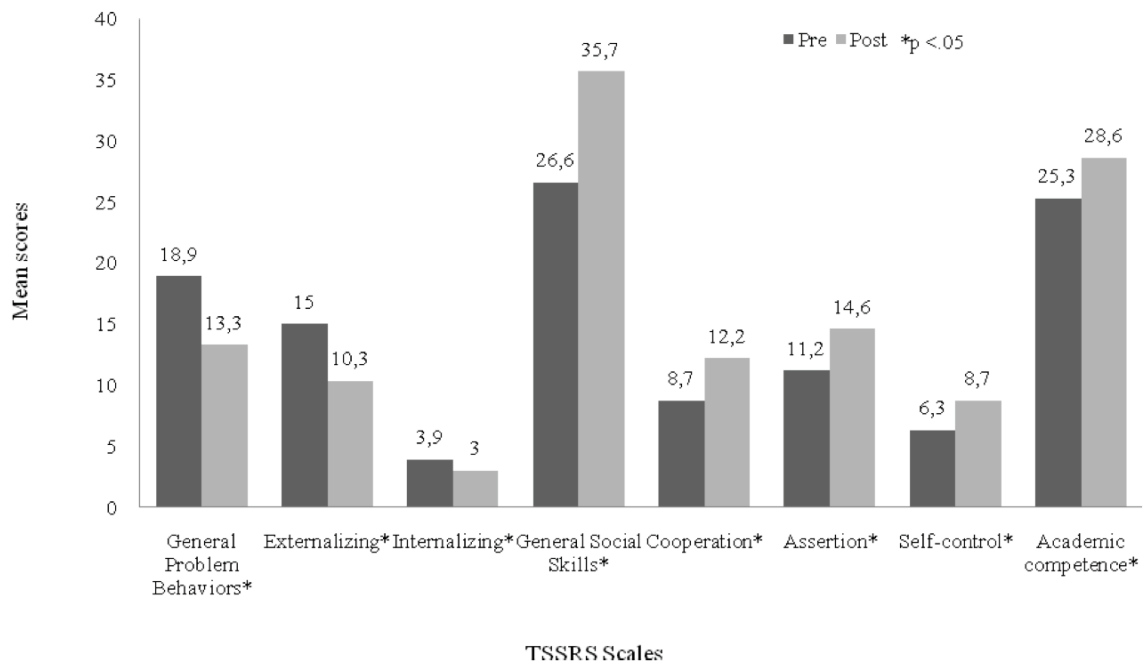


Figure 1. The impact of the FSS on behaviors and skills of targeted students

*Social validity of the TFSS*

Social validity of the TFSS program was assessed by targeted teachers and parents. As can be seen from Table 2, targeted teachers expressed very positive opinions regarding social validity of the TFSS. For example, out of fifty-three, forty-two thought that the goal of the program fit well with goals to improve their classroom behaviors, and thirty-seven agreed and strongly



agreed that the goal of the program was compatible with needs in their classrooms. Most satisfied with the changes in behavior of their targeted students and noticed changes in their students' behaviors quickly. Forty-four teachers agreed and strongly agreed that the program was effective in teaching their targeted students appropriate behavior and forty thought that the program had a positive effect on the target child's peer relationships. Most stated that they received enough ongoing support, would recommend the program other teachers, and would use the program with other students.

Table 2.

*Targeted Teachers' Ratings Regarding Social Validity of the TFSS*

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
	n (%)	n (%)	n (%)	n (%)	n (%)
The goal of the program fit well with my goals to improve classroom behavior.		2 (4)	6 (12)	33 (66)	9 (18)
The goal of the program was compatible with my needs in the classroom.		3 (6)	10 (20)	33 (66)	4 (8)
The program was easy to use.		7 (14)	14 (28)	20 (40)	9 (18)
The program did not take much of my time.		12 (24)	6 (12)	27 (54)	5 (10)
The program did not interfere with my other teaching activities/ responsibilities.		7 (14)	8 (16)	26 (52)	9 (18)
I am satisfied with the change in behavior with my student.		3 (6)	6 (12)	27 (54)	14 (28)
I noticed changes in my student's behavior quickly.		4 (8)	6 (12)	24 (48)	16 (32)
The program was effective in teaching my student appropriate behavior.		5 (10)	1 (2)	33 (66)	11 (22)
The program had a positive effect on the target child's peer relationships.		6 (12)	4 (8)	25 (50)	15 (30)
I received adequate training to use the program.	1 (2)	5 (10)	6 (12)	28 (56)	10 (20)
I received on-going support/help while using the program.		5 (10)	4 (8)	31 (62)	10 (20)
I would recommend the program to other teachers.		3 (6)	9 (18)	23 (46)	15 (30)
I would use the program with other students in the future.	1 (2)	4 (8)	8 (16)	23 (46)	14 (28)

As can be seen from Table 3, like targeted teachers, targeted mothers were also very satisfied with the use and results of the TFSS. For example, out of fifty-three, forty-four agreed and strongly agreed that the goal of the program was compatible with their needs at home. For most, the program was easy to use without taking much of their time and did not interfere with their other activities/ responsibilities at home. Most satisfied with the changes in behaviors with their children and noticed changes in their children's behaviors quickly. Most stated that they received enough ongoing support, and that they would recommend the program other parents.

Table 3.

*Targeted Mothers' Ratings Regarding Social Validity of the TFSS*

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
	n (%)	n (%)	n (%)	n (%)	n (%)
The goal of the program fit well with my goals to improve home behavior of my child.	2 (4)	3 (6)	15 (30)	7 (14)	23 (46)
The goal of the program was compatible with my needs at home.	1 (2)	1 (2)	4 (8)	25 (50)	19 (38)
The program was easy to use.	3 (6)	1 (2)	3 (6)	18 (36)	25 (50)
The program did not take much of my time.	2 (4)	2 (4)	1 (2)	21 (22)	24 (48)
The program did not interfere with my other activities/ responsibilities at home.	2 (4)		3 (6)	20 (40)	25 (50)
I am satisfied with the change in behavior with my child.	2 (4)		4 (8)	21 (42)	23 (46)
I noticed changes in my child's behavior quickly.	3 (6)	1 (2)	3 (6)	25 (50)	18 (36)
The program was effective in teaching my child appropriate behavior.	2 (4)	1 (2)	2 (4)	24 (48)	21 (42)
The program had a positive effect on the target child's peer relationships.	2 (4)	1 (2)	3 (6)	26 (52)	18 (36)
I received adequate information to use the program.	2 (4)		2 (4)	8 (16)	38 (76)
I received on-going support/help while using the program.	2 (4)	5 (10)		17 (34)	26 (52)
I would recommend the program to other parents.	2 (4)			5 (10)	43 (86)

## Discussion

In this study, at first, the effectiveness of the Turkish Version of FSS program on problem behaviors, social skills, and academic competence was explored. For this, One-Way ANCOVA was administered to the data and significant differences were found between control and experimental groups in post-intervention scores on general problem behaviors, more specifically on externalizing and internalizing behaviors, and on general social skills, more specifically on cooperation, assertion, and self-confidence. No significant difference was found between the two groups in post-intervention scores on academic competence. Since the FSS program is directly related to problem behaviors and social skills, and colletarely related to academic competence, it is obvious that significant differences were found on problem behaviors and social skills of two groups. Because of using judgment-based assessment and duration of intervention (approximately 3-4 months), meaningful differences might not be found between control and experimental groups regarding academic competence. In most of the studies conducted on the

FSS program, the effectiveness of the program on academic skills was assessed by measuring Academic Engagement Time (AET) of participant students. By using a stopwatch, AET is a measurement of duration students appropriately attend to academic tasks. In our study, because of large sample size, difficulty in getting permission to have direct observations in schools or classrooms, and difficulty in having enough data collectors, instead of AET, we tried to examine this variable with a judgment-based assessment procedure. The results of the current study regarding positive improvements on problem behaviors and social skills were consistent with the results of the studies conducted on the effectiveness of the FSS program (e.g., Diken, Cavkaytar, Batu, Bozkurt, & Kurtyilmaz, 2009; Diken & Rutherford 2005; Golly et al., 1998; Golly et al., 2000; Overton et al., 2002; Ozdemir 2005; Perkins-Rowe 2001; Walker et al., 1998).

As a second interest, the effectiveness of the Turkish version of FSS on targeted students' problem behaviors, social skills, and academic competence was examined. According to teacher ratings of targeted students, significant decreases on problem behaviors and significant increases on social skills and academic competence were found. Overall these positive improvements on targeted students' problem behaviors were reported in other studies on the FSS program (Diken, Cavkaytar, Batu, Bozkurt, & Kurtyilmaz, 2009; Diken & Rutherford, 2005; Golly et al., 1998; Golly et al., 2000; Overton et al., 2002; Ozdemir, 2005; Perkins-Rowe, 2001; Walker et al., 1998). In most of these studies, Academic Engagement Time (AET) was taken as dependent measures and found that the FSS program had also significant influence on AET measures of targeted students. Students who exposed to the FSS program showed significant improvements on their AET scores. The similar positive effects of the FSS program on social skills (e.g. play behaviors) were also reported in previous studies of the FSS program. Walker and his colleagues (1998), for example, in their study pointed out that the FSS program produced substantial positive changes on targeted students' level of nonsocial (negative/alone) playground behaviors. Diken and Rutherford (2005) also reported that the FSS program had a significant positive effect on all participant students' social play behaviors. In their study, it was observed that, as soon as the intervention started, all targeted students' social play behaviors significantly increased whereas their nonsocial behaviors relatively decreased.

Regarding the results of social validity of the FSS program or satisfaction with the use and outcomes of the FSS program, high level satisfaction and positive opinions were reported by both targeted teachers and mothers. These results were consistent with the findings of the previous studies conducted on the effectiveness of the FSS program. For example, in one of the first studies on the FSS program by Walker and his colleagues (1998), most targeted participants generally showed high levels of satisfaction with the program. In another study conducted by Golly and her associates (2000), the FSS was found as effective in teaching appropriate behavior. Teachers reported that the FSS had a positive effect on the target child's peer relations. The FSS was also reported as easy to use. Moreover, majority of participants would agree to implement the program again in the future. In other studies (e.g., Diken & Rutherford 2005; Overton et al., 2002; Perkins-Rowe, 2002; Ozdemir, 2005), similar outcomes (e.g. finding the FSS effective on both targeted and other students in the classroom and finding it easy to use) were reported by participants of the program. However, in the current study, some of teachers were reported less satisfaction with the use and outcomes of the FSS program. When examined in depth, it was found that teachers from the schools where lower treatment integrity scores gathered were reported less effective outcomes regarding the FSS program. Since the implementation of the FSS program was not followed as intended in the program in these schools, it is assumed that these teachers showed less positive opinions about the FSS program. All teachers from other schools where treatment integrity scores for both the FSS coaches and teachers were higher reported positive opinions regarding the use and outcomes of the FSS program.

The results of the current study should be interpreted with the following limitations. Firstly, in the current study, although both parents were involved with the study, data were collected from only mothers since they were the ones who wanted to provide the data. This might be a limitation

of the study and might directly influence generalization of the findings. Secondly, in Turkish version of the FSS, we added a new booklet about how to deal problem behaviors both at schools and home to the program and were not able to explore the impact of this booklet to the program. The booklet basically provides practical information, parallel with the content and purpose of the FSS, on dealing with problem behaviors. As another limitation, although the FSS has two modules as classroom and home interventions, we had only chance to examine treatment integrity of classroom intervention. We tried to follow the treatment integrity of the HomeBase through examining whether First Step Coaches followed the HomeBase implementation guidelines and checked whether mothers had been implementing the program at home appropriately. Therefore, not to have a direct measure of treatment integrity of the HomeBase make the decision hard regarding what module(s) had impacts on changes.

By conducting an experimental study in Turkey, the current study extends the knowledge base of the effectiveness of the FSS program and supports the use of FSS program in different cultures in other countries beside the US. However, to broaden this knowledge base and support the FSS as an evidence-based program in Turkey, this study should be replicated with larger sample sizes from schools located in different cities of Turkey.

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