# *Summary* The Efficacy of "Parenting Support Program" on Parenting Attitudes and Behaviors, Parenting Efficacy and Parenting Stress

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The effect of parenting on child development and child behaviors has made parenting focus of child mental health researches (Grolnick et al., 2007; Pinguart & Kauser, 2018). Moreover, considering the prevalence of child behavior problems (American Psychiatric Association, 2013) and negative effects of child behavior problems on children (Bornstein, Hahn, & Suwalsky, 2013), parents (Dishion & Patterson, 2005), family (Davis & Neece, 2017; H. Jones, Putt, Rabinovitch, Hubbard, & Snipes, 2017) and community (Foster & Jones, 2005), researches and implementations to prevent child behavior problems appear to be necessary. The relationship between parenting skills and child behavior problems (Patterson & Reid, 1984) and the predictive role of negative parenting behaviors at early childhood on behavior problems in older ages (Caughy, Peredo, Owen, & Mills, 2016), have enabled parent training programs (PTP), aiming to improve parenting skills, to be used as an intervention tool. The present study aims to test the efficacy of a PTP, called as Parenting Support Program (PSP) on parenting variables including parenting attitudes, parenting behaviors, parenting efficacy and parenting stress.

The underlying assumption of PTTs is that positive parenting behaviors will positively reflect on children's behavior. Based on this assumption, PTTs aim to teach parents basic learning principles in order to enrich the interaction between parents and thereby develop positive behaviors in the child (Forgatch & Patterson, 2010). Previous studies showed that PTTs are effective in reducing problem behaviors and increasing positive behaviors and parenting skills (Kaminski, Valle, Filene, & Boyle, 2008; Lundahl, Risser, & Lovejoy, 2006; Maughan, Christiansen, Jenson, Olympia, & Clark, 2005;Serketich & Dumas, 1996). Moreover, PTTs are classified as evidence-based interventions (Brestan & Eyberg, 1998; Chambles et al., 1996) to reduce child behavior problems.

The goals of PTTs related with parents are to de-

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velop positive parenting attitudes and skills, increase parenting efficacy, and decrease parenting stress. Parents with positive parenting attitudes exhibit effective parenting skills such as spending quality time with child, praising, monitoring and limit setting (Berk, 2006). On the other hand, parents with negative parenting attitudes use ineffective parenting behaviors such as hitting, yelling, not monitoring them (Pellerin, 2005). Especially in preschool period, the increase in positive parenting attitudes (Garland, 2007; Patterson, DeGarmo, & Forgatch, 2004) and less use of negative parenting behaviors (Akcinar, 2015) are associated with decreased child behavior problems in later years. There is also a bidirectional relationship between parenting behaviors and child behaviors (Combs-Ronto et al., 2009; Sheehan & Watson, 2008). The coercion theory (Patterson, 1982) provided a interactional perspective that child behavior problems may reinforce negative parenting behaviors and vice versa. Therefore PTTs may be more benefical and important especially parents of children with behavior problems.

Based on Bandura's (1986) concept of self-efficacy, parenting efficacy refers to the degree to which the parents believe that they can handle child problem behaviors and child-raising tasks (Johnston & Mash, 1989). Parents with high parenting efficacy use parenting skills more (T. L. Jones & Prinz, 2005) and use negative parenting behaviors less (Hill & Bush, 2001). On the other hand the decrease in parenting efficacy is related with child behavior problems (Hill & Bush, 2001). As parental skills improve, parenting efficacy increases (Hess, Teti, & Hussey-Gardner, 2004), indicating that parental efficacy can be improved through PTTs.

Parenting stress refers to the degree and intensity of stress which parents feel about the child-rearing process (Abidin & Abidin, 1990). High parenting stress in early childhood is associated with the behavioral problems of children in later years (Bayer et al., 2012; Twomey et al.,

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2013). On the other hand, there is also a bidirectional relationship between parenting stress and child behavior problems (Neece et al., 2012). Considering the general psychological stress theory (Lazarus, 1993), we may argue that the use of positive parenting behaviors reduce parenting stress by decreasing child behaviors problems.

Although PTPs are used as evidence-based intervention tools (Brestan & Eyberg, 1998; Chambles et al., 1996), the use of PTPs to prevent children's problem behaviors is limited in Turkey, and most of the studies used previously developed PTPs. In Turkey, some of the studies showed that PTPs were effective on parenting behaviors and attitudes (Öztürk, 2013; Sayın, 2014, Sümer et al., 2020) while others indicated that PTPs did not develop parenting skills (Arkan, 2012; Coşkun, 2008). Moreover, previous studies showed that intervention in preschool period (Capage, Foote, McNeil, & Eyberg, 1998; Lundahl et al., 2006), behavioral interventions (Lundahl et al., 2006) and individually delivered programs (Maughan et al., 2005) are more effective in PTPs. Considering the limited number of preventive/intervention studies on child behavior problems in Turkey, the present study aims to test the efficacy of an individually delivered parent training program (PSP) on parenting attitudes and skills, parenting efficacy, and parenting stress.

# Method

#### Study design

The parallel embedded design in which qualitative data support the quantitative data was used in the current study. The quantitative part of the study utilized a randomized, controlled trial to test the efficacy of Parenting Support Program (PSP). In the qualitative part of the study, parents' opinions about the PSP and their behaviors were evaluated.

#### **Participants**

Participants were 18 parents of children meeting the inclusion criteria, which are: 1) the age of the child is 36-72 months, 2) the child exhibiting problem behaviors, 3) parents having difficulty in dealing with child problem behaviors. Participants were randomly assigned to the experiment group (EG; n = 9, 9 boys) or waitlist group (WL; n = 9; 8 boys, 1 girl). The mean age of the children in the experiment group (EG) and waitlist group (WL) was 58.6 months (Sd = 10.15) and 54 months (Sd = 11.90), respectively.

### Parenting Support Program (PSP)

PSP is based on several theoretical approaches, which are *social interaction learning model* (Patterson, 2002), Parent-Child Interaction Therapy (Zisser & Eyberg, 2010), mindfulness-based parenting models (Dumas, 2005; Duncan, Coatsworth, & Greenberg, 2009) and EcoFIT model (Dishion & Stormshak, 2007). Taking these theoretical approaches and the results of previous studies, PSP was developed, and the two academicians who are experts in parent training assessed it before the implementation. PSP consists of two stages. The first stage, preliminary assessment, includes three sessions that aim to create a case-conceptualization, to give feedback and to plan intervention stages. Intervention, the second stage, consists of nine sessions covering parenting skills such as giving effective instruction, praising, limit-setting, setting family rules, spending quality times with children.

### Measures

**Parenting styles.** We measured parenting styles via the Parenting Styles and Dimensions Questionnaire-Short Form (PSDQ-SF) consisting of 32 items based on a 5-point Likert-type scale (Robinson, Mandleco, Olsen, & Hart, 2001). PSDQ-SF has three sub-scales which were designed to assess parenting styles of Baumrind's typologies of authoritative, authoritarian, and permissive parenting. The higher score in each sub-scale indicates increased use of parenting style defined in the sub-scale. The Turkish form of PSDQ-SF has a similar factor structure to the original form, and alpha reliability coefficients range from .64 to .88 (Kapçı & Erdinç, 2009).

**Parenting stress.** To measure parenting stress, we used the Parenting Difficulties Scale (PDS) consisting of 21 5-point Likert-type items and 4 sub-scales of efficacy, stress, satisfaction, and skills. The PDS can produce subscores as well as total score. The higher total score shows a higher level of parenting stress. The PDS has high reliability coefficient as .85 (Çokamay, 2018; Çokamay & Kapçı, 2016b).

**Parenting efficacy.** Participants completed the Parenting Sense of Competence Scale (PSOC), which was developed to assess parenting self-esteem (Gibaud-Waliston & Wandersman, 1978). The revised form of PSCO is a 16-item scale and two subscales of satisfaction and efficacy. Each item is answered on a 6-point scale, and higher scores indicate greater self-esteem (Johnston & Mash, 1989). The Turkish form of the PSOC has a similar factor structure to the original form, and Cronbach's alpha coefficients were ranged from .75 to .77 (Çokamay, 2018; Çokamay & Kapçı, 2016a).

*Parenting behaviors.* We coded videotaped family interactions via the Family Assessment Task (Fosco, Doyle, Dishion, Kavanagh, & Stormshak, 2010). FAST<sup>1</sup>, developed in the University of Oregon Child and Family Center, is an observational tool to assess family interac-

<sup>1</sup> The first author of this study was trained to use FAST coding in the University of Oregon Child and Family Center.

tions and basic parenting skills in real life-setting. FAST includes five tasks (child-directed play, clean-up, teaching, parent-busy, and family drawing) in which families participate. Recorded performances of families in every task is coded according to the FAST coding manual. A coding score is provided in four domains for parents. We used four domains of relationship quality, positive behavior support, monitoring/limit setting, and caregiver engagement. Ratings range on a scale from 1 to 5. The high score in each domain indicates that the parents use the skills in that domain more.

**Qualitative data.** To get information about how PSP changes the family interactions and parenting behaviors and whether the PSP meets the expectations of the families, we conducted a semi-structural interview with the families. We prepared several open-ended questions and finalized them after obtaining expert opinions<sup>2</sup>. Parents in both EG and WL answered these questions at pre-interview (T1) and post-interview (T2).

### Analysis

To test the efficacy of the PSP, we analyzed the differentiation of the gain scores of two group via Mann Whitney-U test (Büyüköztürk, 2007) and we run the Wilcoxon Signed Rank test to analyze the difference between T1 and T2 score in both EG and WL. If there is significant differentiation between scores, we calculated effect size with a formula used for non-parametric tests<sup>3</sup> (Cohen, 1988; Coolican, 2014; Fritz, Morris, & Richler, 2012). We also calculated RCI by using criteria defined by Bauer, Lambert, and Nielsen (2004) and a formula<sup>4</sup> developed by Jacobson and Truax (1991) to assess clinical significance. The RCI above the  $\pm 1.96$  indicates that the change is reliable and occurs independently of the standard error of measurement. We defined the improvement in the scores of parent that meets the RCI criteria as "positive change" and impairment as "negative change". Except for the first author of the current study, a second "blind coder" coded 25% of videotaped data selected randomly. The intra-class correlation coefficients range .89 to .95, indicating that there is a "high" agreement between coders (Erdoğan, 2004). For qualitative data, we used the "binary coding cycle". At first cycling coding, we coded the qualitative data gathered from pre-interview using structural coding method. In the second cycling coding, we coded the quailative data obtained during the post-interview by longitudinal coding method based on the structural codes obtained in the first cycling coding. Using longitudinl coding method, we aim to analyze qualitative increase, decrease or constancy about parenting attitudes, perceptions and beaviors through pre-interview to post-interview (Saldaña, 2015).

## Procedure

After the development of the PSP, ethics approval from the Ethics Committee of Ankara University was received. Afterward, PSP was announced in 28 randomly selected preschools. A total of 18 families who met the inclusion criteria were given a number according to application order. The families who had an even and odd number were assigned to EG and WL groups respectively. After the pretest assessment, EG families attended the PSP, and twelve weeks after T1, all families were visited for T2 assessment. After the T2, seven WL families (two families voluntarily withdrew from the program) attended the PSP. In the qualitative part of the study, the participants' opinions about their children, their children's behaviors, and PSP were obtained via a semi-structured interview at T1 and T2.

#### Results

**Preliminary analysis.** Firstly we calculated demographic statistics and presented in Table 2. Then, we compared the pretest scores of parents in EG and WL. Mann Whitnet-U test showed that there was not any significant difference between EG and WL in the pretest scores of all variables.

**Parenting styles.** Mothers in EG at T2 improved on the authoritative parenting style and significantly decreased their authoritarian and permissive parenting styles. The results of gain score analysis indicated that the increase in authoritative parenting score and the decrease in authoritarian and permissive parenting scores were greater in EG than those in WL. Fathers in EG reported a significant decrease in authoritarian parenting scores at T2. On the other hand, the authoritative parenting scores of fathers in WL significantly decreased at T2. As gain score analysis, the increase in authoritative parenting scores was significantly higher in EG than WL (Table 2).

**Parenting efficacy.** Parenting efficacy score of mothers in EG significantly increased at T2, and as reported by mothers, the change in parenting efficacy scores in

<sup>2</sup> Q1. Considering the last two months, could you describe your behaviors towards your children? Q2. What do you usually do when you get angry with your child for his/her behavior? Q3. What is it like to be .... (child's name)'s parent? Q4-Pre. What changes do you expect from yourself after PSP? Q4-Post. What kind of changes did you have and did these changes meet your expectations? Q5-Pre. What changes do you expect from your family after PSP? Q5-Post. What kind of changes did your family have and did these changes meet your expectations?

<sup>3</sup>  $r = z/\sqrt{N}$ ;  $\eta 2 = z/N$ . The "r" value at .1, .3 and .5 is small effect, medium effect, and large effect size, respectively.

<sup>4</sup> RCI = Xpre-XpostSdiff, Sdiff = 2Se2, Se = Ssx1-rx

EG was greater than WL. However, there is no significant changes in the father's parenting efficacy scores.

**Parenting stress.** As reported by mothers, parenting stress scores in both EG and WL significantly decreased at T2. Gain score analysis also showed that the decrease of parenting stress in EG and WL did not significantly differentiate. Moreover, fathers in EG and WL did not report any significant change in their parenting stress scores.

**Parenting behaviors.** According to the result of the FAST coding system, in the EG, mothers' scores of the relationship quality, positive behavior support, monitoring/limit-setting and caregiver engagement significantly increased at T2. Moreover, the increase in mothers' all FAST scores was significantly higher in EG than WL. Fathers in the EG also had significantly higher relationship quality, positive behavior support and monitoring/limit setting scores at T2. Similarly, the increase in fathers' all FAST scores was significantly higher in EG than WL.

*Clinical significance.* According to the mothers' report, the change in the parenting styles, parenting efficacy, and parenting in the EG that fulfill the RCI criteria was greater than in the WL. Furthermore in WL, a mother's authoritative parenting score decreased at T2, and the RCI of these changes was higher than 1.96. Similarly for fathers, the ratio of the change in the score of authoritative parenting, permissive parenting, parenting efficacy, and parenting stress, which met the RCI criteria in the EG was higher than in the WL. On the other hand, in the WL, the authoritative parenting scores of four fathers decreased at T2, and this change fulfills the RCI criteria (Table 3).

#### Qualitative results

Parenting behaviors. We assessed the changes in parents' behaviors toward their children via analyzing parent's responses to the Q1 and Q2 at T1 and T2 interview. In the firs cycling coding, we obtained structural codes about parenting behaviors. Then, in the second cycling coding, we coded the data using the longitudinal coding method to evaluate the change in the qualitation of the parenting behaviors. The analysis of parents' responses showed that whereas in the EG, there is a increase in using positive parenting behaviors at T2, in the WL there is a constancy in using negative parenting behaviors. For instance, a mother who stated that her behavior was violent ("Our last two months are very troubled ... I have shouted more, and I hit twice"; 109-A-Ö), described her behavior at the T2 as "I am trying to understand her emotions, and I am talking to her" (109-A-S). Similarly, parents in the EG stating at T1 (E.g. "I shout, or else I hit" 105-B-Ö) that they had difficulty in controlling their anger reported at T2 that they have used anger control strategies (E.g. "Now I try to do relaxation techniques" 105-B-S).

Perception of parenting. We formed the longitudinal codes based on the structural codes obtained from the parents' responses to the O3 to define participants' perceptions of parenting. We found that in EG, parents' negative thoughts and emotions about parenting decreased at T2, on the other hand positive emotions and thoughts about parenting increased. Nevertheless, in the WL, we could not obeserve any change in parents' perception about parenting. For instance, while a EG mother described parenting as a difficult task at T1 ("It is one of the most beautiful emotions, but it is very exhausting", 105-A-Ö) she stated that parenting depends on some skills and these skills can be taught ("Parenting is very very beautiful thing. But I have learned that parents need to know how to raise children. Otherwise it will be difficult." 105-A-S).

Feasibility of PSP. We assessed the feasibility of PSP by examining whether the PSP meets the expectations of parents for themselves and their families (O4-Q5). Parents' expectations for themselves were grouped under two structral codes as gaining effective parenting skills and emotion regulation skills. The analysis of longitudinal codes demonstrated that parents reported that they had change in their behaviors in line with their expectations. For example, a mother whose expectation was to learn setting rules stated that her expectation was met as follows: "It is easy and fun to set rules and say something. I'm happier, I'm not falling into pessimism like before. It was very useful" (107-A-S). Similarly, parents' expectations about their families were classified under two structutral codes as "promote family harmony" and "increase family interaction". At T2, longitudinal codes indicated that parents had a change in the family harmony and family interaction that meet their expectations (E.g. "We have rules now. What we do is more organized, and we know how to deal with the problems. We learned a lot" (107-A-S).

#### Discussion

The present study provides empirical support for the effectiveness of PSP in increasing positive parenting styles, effective parenting skills, and parenting efficacy and decreasing negative parenting styles. According to the RCI, a relatively high percentage of parents in the EG reported a clinically significant change in their attitudes and behaviors. Qualitative findings seemed to largely support the effectiveness and feasibility of PSP. These findings are consistent with previous studies indicating that PTPs are effective in developing positive parenting skills (Lee, Niew, Yang, Chen, & Lin, 2012; Lindsay et al., 2010; Reyno & McGrath, 2006). In Turkey, while some previous studies found that PTPs were effective in parenting styles and behaviors (Öztürk, 2013; Sayın, 2014), other studies found that PTPs were not effective (Arkan, 2012; Coşkun, 2008). Qualitative findings showed that EG parents exhibited more effective parenting behaviors such as listening, emotion regulation and less negative behaviors such as shouting or hitting. In this way, PSP may have contributed the increase of positive parenting attitudes.

The other result of this study is that PSP increased the parenting efficacy of mothers. Similarly, some previous studies indicated that the effect of PTPs on parenting efficacy was limited to mothers (Bodenmann, Cina, Ledermann, & Sanders, 2008; Colalillo & Johnston, 2016). In the present study, the effect of PSP on parenting efficacy may have occurred both directly and indirectly. Learning new skills and using them in daily life because of PSP may support Bandura (1977)'s sources of self-efficacy. Considering the relationship between positive parenting styles and parenting efficacy (Hill & Bush, 2001; Izzo, Weiss, Shanahan, & Rodriguez-Brown, 2000), PSP may have indirectly increased the parenting efficacy through the development of positive parenting styles.

On the other hand, the PSP is not effective in decreasing parenting stress. Although there are studies demonstrating that PTPs are effective (Thijssen, Vink, Muris, & de Ruiter, 2017) and not effective (Fujiwara, Kato, & Sanders, 2011) on parenting stress, meta-analysis studies showed that the results of PTPs on parenting stress are not consistent (Cooley, Veldorale-Griffin, Petren, & Mullis, 2014; Zwi et al., 2012). Most of the children have just started school at the beginning of the PSP. Therefore, considering the relationship between school adaptation and parenting stress (Anthony et al., 2005), there may be a reduction in parenting stress as the child adjusts to school.

Consistent with the previous studies (Bodenmann et al., 2008; Jonyniene, Kern, & Gfroerer, 2015; Tucker, 1996), the effect of PSP is more limited on fathers than on mothers. Firstly, we may explain this difference by the self-efficacy theory claiming that although the person has the necessary skills to do a job, the person does not take action for the job if the result s/he expects is not valuable for him/her. Fathers perceive problem behaviors such as hyperactivity as fewer problems than mothers do (Liu & Wang, 2015), and 91% of the Turkish fathers accept mothers as the primary responsibility for the care of the child (Akçınar, 2017). Therefore, fathers may have seen less valuable to implement what they learn from PSP. Secondly, since fathers spend more limited time with their children they might consider dealing with behavior problems as a threat to their relationship with children (Gershy & Omer, 2017). Considering the increase in parenting efficacy depending on time and experience (Hanisch, Hautmann, Pluck, Eichelberger, & Dopfner, 2014), this limited-time may decrease the possibility of measuring this change. Finally, fathers have an indirect effect on the child in terms of the relationship between the mother and the supporting role of the mother (Gershy & Omer, 2017). Thus, this indirect effect may have not been measured in the present study.

Consequently, the present study showed that PSP is effective in developing positive parenting styles, parenting behaviors and parenting efficacy. The relationship between positive parenting styles and child behavior problems (Hanisch et al., 2014) and the mediation role of the parenting efficacy in this relationship can explain the effect of PSP in decreasing child behavior problems. These findings demonstrated that PSP can be used as an intervention tool to decrease child behavior problems and to develop positive parenting behaviors.

# **Limitations and Future Research Directions**

One limitation of this study is that the number of participants does not reach the level to meet the assumptions of parametric statistics. Secondly, the study group of the current study does not include a clinical sample. Moreover, although behavioral problems are more common in boys (American Psychiatric Association, 2013) and children in PTPs are mostly boys (e.g. Menting, Orobio de Castro, & Matthys, 2013), another limitation is that the generalizability of our findings is limited to boys. Similarly, the number of fathers participating in PSP is less than those of mothers. The last limitation of this study is the absence of follow-up data, which does not allow us to examine whether the effect of PSP maintains after treatment. Meta-analysis studies showed that the effect of PTPs was maintained after treatment (Lee, Niew, Yang, Chen, & Lin, 2012; Lundahl et al., 2006) and parents reported being satisfied with the PSP and changing their behavior, which may show that the change in child behavior may maintain. However, to examine the long-term effectiveness of PSP is essential.

Considering the findings and limitations of the present study, it may be recommended to test the effectiveness of PSP on girls, children with clinical problems, and children of different age groups. Secondly, future studies with high father participants may investigate the role of fathers in parent training. Finally, one of the characteristics of the evidence-based intervention programs is that different researchers determine the effectiveness of the intervention program (Chambles & Hollon, 1998). Therefore, different practitioners may assess the effectiveness of ADP.