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Does Setting Goals Enhance Parenting Intervention Effects? A Field Experiment

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People who pursue approach goals (i.e., desired outcomes to be reached) tend to be more likely to achieve their goals than people who pursue avoidance goals (i.e., undesired outcomes to be prevented). We tested this premise in a brief preventive parenting intervention targeting parental praise to reduce disruptive child behavior. We also tested whether goal setting effects depend on behavior change phase (initiation versus maintenance) and parents' regulatory focus (high versus low promotion and prevention focus). Parents ($N = 224$; child age 4–8) were randomized to one of four conditions: an approach goal-enhanced or an avoidance goal-enhanced intervention condition, a no-goal intervention condition, or a waitlist control condition. Outcomes were parent-reported and audio-recorded positive parenting and disruptive child behavior. Results show that goal setting had very limited effects. Setting avoidance goals, not approach goals, improved self-reported positive parenting. However, goal setting did not enhance effects of parenting intervention on observed (i.e., audio-recorded) positive parenting and disruptive child behavior. Furthermore, goal setting effects depended neither on the phase of

change, nor on parents' regulatory focus. This field experiment suggests that setting approach goals does not enhance the brief parenting intervention to improve parent-child interactions.

Keywords: parenting intervention; behavior change; approach and avoidance goal setting; positive parenting; disruptive child behavior

PARENTING INTERVENTIONS THAT AIM to reduce disruptive child behavior do so by engendering change in parent-child interactions (Weisz & Kazdin, 2017). Their effects on parenting and child behavior tend to be modest, especially in prevention settings (Menting, de Castro, & Matthys, 2013; Weisz et al., 2017). This may be partly due to the fact that it is difficult to sustain changes in behavior. Behavior change theory proposes several ways to facilitate behavior change (e.g., Locke & Latham, 2002; Prochaska, 2013). One of these is setting goals. In the present study we experimentally test whether goal setting helps parents increase their positive parenting behavior and decrease their child's disruptive behavior. Specifically, we test the relative impact of two types of goal setting on parenting and child behavior: approach goal setting (i.e., focusing on desired situations that parents want to reach) and avoidance goal setting (i.e., focusing on undesired situation that parents want to avoid).

Children develop disruptive child behavior problems in part through coercive interactions with their parents (Patterson, 1982; Smith et al., 2014).

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Coercive interactions typically start with either the parent or child making a demand that triggers an argument that ends when one of the two becomes so forceful that the other gives in. No matter who “wins,” such interactions increase both children’s and parents’ forceful behavior, primarily through reinforcement processes (e.g., through getting one’s way and through the alleviation of the fighting; Patterson, 1982).

Parenting interventions aim to break this cycle of coercive interactions. They do so by teaching parents to model and reinforce nondisruptive, desired behavior, and to either ignore or provide negative consequences for disruptive behavior (Weisz & Kazdin, 2017). Yet, as is true for many behaviors, changing parenting behavior is challenging. Behavior change theories hold that people are better able to implement change if they adopt clear and specific goals (e.g., Locke & Latham, 2002; Prochaska, 2013). Such goals make people explicitly state a reason to change, thus providing direction and enhancing their motivation to act.

An important distinction can be made between approach and avoidance goals (Elliot, 2006). Approach goals describe desired situations to be reached or kept (e.g., increasing or maintaining positive interactions with a child); avoidance goals describe undesired situations to be solved or prevented (e.g., reducing or preventing negative interactions with a child). In many domains, people who adopt approach goals are more likely to accomplish their goals than are people who adopt avoidance goals. For instance, approach goals (as compared to avoidance goals) have been shown to enhance behavior change for academic achievement and healthy eating (e.g., Elliot, Shell, Henry, & Maier, 2005; Sullivan & Rothman, 2008). This might be because it is typically easier for people to think about what they can do to reach the desired situation and monitor progress towards it, than about what they can do to stay away from the undesired situation and monitor whether they are making progress. Thus, approach goals may be more concrete, informative regarding the behavior, and easier to monitor, and therefore more likely to facilitate successful behavior change (Elliot, 2006; Rothman, 2000; Sullivan & Rothman, 2008).

In line with behavior change theories, many established, evidence-based parenting interventions—though some more explicitly than others—ask parents to set approach goals to motivate behavior change (e.g., weekly in *The Incredible Years Parenting Program* (IY); Webster-Stratton, 2001, and at the start in *Parent Management Training Oregon* (PMTO); Forgatch & Patterson, 2010, and *Triple P-Positive Parenting Program* (Triple P);

Sanders, Prior, & Ralph, 2009). Specifically, these interventions encourage parents to not set goals about undesired situations that they want to avoid (e.g., “I do not want to argue with my child”), but to set goals about desired situations that they want to attain (e.g., “I want to have more enjoyable time with my child”). The rationale underlying this strategy is that approach goals increase parents’ motivation and provide more informative guidance, leading to parents being more engaged in the intervention, and potentially benefiting more (Baydar, Reid, & Webster-Stratton, 2003; Nock & Photos, 2006). Although many parenting interventions encourage parents to set approach goals (either as a core element, or as part of an introductory session), empirical evidence that approach goals do indeed enhance intervention-induced changes in parenting and disruptive child behavior is still lacking.

In fact, there is some reason to question the superiority of approach goals over avoidance goals in parenting interventions for disruptive child behavior. In some cases, avoidance goals may be more effective than approach goals, to the extent that avoidance goals are more concrete, emotionally pressing, and better aligned with parents’ mindsets. For example, parents often take part in an intervention because they experience negative interactions with their child. An avoidance goal related to reducing those negative interactions may thus be more informative and better aligned with how parents’ construe the situation than an approach goal that focuses on increasing positive interactions. Previous research has suggested that avoidance goals can indeed be superior to approach goals in situations where people want to “cure” their current situation (e.g., smoking cessation; Worth, Sullivan, Hertel, Jeffery, & Rothman, 2005). Accordingly, we test which type of goal setting—approach or avoidance goal setting—is most effective for enhancing behavior change in the context of a parenting intervention.

GOAL SETTING EFFECTS MAY DEPEND ON THE PHASE OF CHANGE

Changing behavior encompasses two main phases: behavior initiation and behavior maintenance (Prochaska, 2013; Schwarzer, 2008). The benefits of different types of goal setting may differ for each phase (Rothman, 2000). For behavior initiation, parents may be more successful if they set approach goals, because these typically envision a future situation that is more desirable than the current situation. Initiating new behaviors allows them to close the gap between the current state and the more desired future state, i.e., evoking action (Carver &

Table 1

Descriptive Characteristics of Participating Families Across the Goal-Enhanced Intervention Conditions, Standard Intervention Condition, and Waitlist Condition

Family Characteristics	Goal-Enhanced Intervention Conditions (<i>N</i> = 147)	No-Goal Intervention Condition (<i>N</i> = 41)	Waitlist condition (<i>N</i> = 36)	<i>F</i> / χ^2	<i>p</i>
Age child (years)	5.75 (1.34)	5.88 (1.62)	5.53 (1.58)	0.58	.558
Age parent (years)	38.42 (4.85)	39.27 (4.58)	38.44 (5.16)	0.50	.607
Gender child (girls)	41%	29%	25%	5.01	.286
Gender parent (female)	94%	95%	97%	0.68	.713
Dutch nationality	91%	95%	83%	3.25	.197
Fulltime parent	95%	93%	97%	0.78	.676
Parent's educational level ^a					
- Low	2%	2%	6%	2.98	.811
- Medium	13%	17%	14%		
- High	85%	81%	80%		
Previous help with parenting/child behavior	33%	27%	28%	0.81	.668
Parents' promotion focus	31.05 (5.97)	30.44 (5.90)	31.56 (4.83)	0.36	.696
Parents' prevention focus	21.92 (7.73)	21.83 (8.23)	25.14 (6.72)	2.69	.070

Note. Comparisons between conditions were made using ANOVA for continues scores and chi-square tests for categorical scores. Means of goal-enhanced intervention conditions are collapsed across the four conditions for a clear display. There were no differences between the four goal-enhanced conditions on baseline scores.

^a Low = secondary school or lower, medium = intermediate vocational education, high = higher vocational or university level education

Scheier, 1981; Rothman, 2000). In contrast, for maintaining behavior, parents may be more successful if they set avoidance goals, because these typically emphasize the undesirable features of a previous or future state. Maintaining their behaviors allows them to maintain the gap between the current state and the undesired state, i.e., evoking stability (Rothman, 2000). Consistent with this reasoning, participants in a weight loss program who had already lost weight were better able to maintain weight loss if they recalled a previous situation they wanted to avoid (West et al., 2011). Accordingly, we hypothesize that the strongest intervention effects are achieved when parents first set approach goals (to enhance initiation of behavior change) and then set avoidance goals (to enhance maintenance of behavior change).

GOAL SETTING EFFECTS MAY DEPEND ON PARENTS' REGULATORY FOCUS

The putative effects of approach and avoidance goals might not be the same for all parents alike. There is some evidence that the relative effects of approach and avoidance goals may depend on an individual's dispositional motivation, or regulatory focus (Elliot, 2006; Motyka et al., 2014). Regulatory focus refers to the extent to which individuals focus on promoting positive outcomes and seeking advancement in life (e.g., aspire for their child to grow up in a manner they consider successful), versus preventing negative outcomes and seeking safety (e.g., worry that their child may grow up in a manner they consider unsuccessful; (Higgins, 1998; Lanaj, Chang, &

Johnson, 2012). Note that promotion and prevention focus have been shown to be independent motivational dimensions (Lanaj et al.).

Regulatory fit theory holds that if intervention messages match one's regulatory focus, this increases one's motivation to change, because the message "feels right" (Cesario, Grant, & Higgins, 2004; Cesario, Higgins, & Scholer, 2008). For example, parents who often dream about their child growing up successfully may be more responsive to messages such as, "This will enhance your child's healthy development," whereas parents who often worry about their child growing up in undesired ways, may be more responsive to messages such as, "This will prevent your child's unhealthy development." Evidence for such matching effects has been obtained in the areas of physical activity (Latimer et al., 2008) and healthy eating (Spiegel, Grant-Pillow, & Higgins, 2004). Accordingly, we hypothesize that setting approach goals is more effective for parents who are high, versus low, on promotion focus, and that setting avoidance goals is more effective for parents who are high, versus low, on prevention focus.

THE PRESENT STUDY

We aimed to identify which type of goals may enhance the effect of a parenting intervention on parent-child interactions. Specifically, we used a brief (i.e., 2-week) intervention, focused on parents' use of praise to reinforce positive child behavior, to test three hypotheses. First, we pit opposing hypotheses against each other regarding the most effective type

Table 2

Means and Standard Deviations of Parenting and Child Behavior at Immediate Posttest and 2-Week Follow-up by Intervention Condition

	Goal-Enhanced Intervention Conditions				No-Goal Intervention (<i>n</i> = 41)	Waitlist Condition (<i>n</i> = 36)
Initial goals:	Approach (<i>n</i> = 70)		Avoidance (<i>n</i> = 77)			
Baseline						
- Positive parenting	22.46 (2.47)		22.68 (2.47)		22.90 (2.14)	22.50 (2.25)
- Disruptive child behavior	133.13 (20.34)		132.64 (22.46)		134.53 (19.65)	137.64 (17.10)
Immediate follow-up						
- Positive parenting ^b	23.20 (1.82)		23.94 (1.97)		23.20 (2.42)	22.69 (2.54)
- Disruptive child behavior ^a	119.75 (18.40)		118.43 (19.67)		119.48 (23.19)	131.29 (18.19)
End of intervention goals:						
	Approach (<i>n</i> = 33)	Avoidance (<i>n</i> = 37)	Approach (<i>n</i> = 38)	Avoidance (<i>n</i> = 39)		
Two-week follow-up						
- Positive parenting ^b	23.41 (1.71)	23.21 (1.16)	23.89 (1.69)	23.92 (2.08)	22.92 (2.68)	22.93 (2.23)
- Parents' verbal praises ^a	0.96 (0.77)	1.05 (1.24)	1.15 (0.86)	1.04 (0.79)	1.52 (1.24)	0.89 (0.82)
- Disruptive child behavior ^a	118.50 (21.21)	112.80 (21.34)	111.67 (21.14)	114.66 (23.24)	115.91 (22.61)	127.26 (15.40)
- Children's cleanup time ^a	3.09 (2.06)	2.97 (1.78)	2.57 (1.63)	3.06 (1.83)	2.82 (1.90)	3.90 (2.03)
- Children's verbal protests	1.24 (1.23)	1.52 (1.73)	1.25 (1.13)	1.23 (1.39)	1.18 (1.26)	1.39 (2.06)

Note. Verbal praises and verbal protests are counted per minute, controlled for the duration of the cleanup task. Children's cleanup time is in minutes.

^a Significant difference between the intervention condition without goal setting and waitlist condition ($p < .05$)

^b Significant difference between the avoidance-goal-enhanced intervention, the approach-goal-enhanced intervention, and no-goal intervention conditions ($p < .05$)

of goal setting (i.e., approach versus avoidance) to enhance the effects of the intervention on parenting and child behavior. To test this, we randomly assigned parents to set either approach goals, avoidance goals, or no goals at the start of the brief intervention. Second, we tested whether the intervention was particularly effective when parents set approach goals when they started to initiate change in their behavior, and then set avoidance goals to maintain the change. To do so, we randomly assigned parents to generate a second set of either approach or avoidance goals at the end of the intervention. Finally, we tested whether the intervention was particularly effective when parents with a high promotion focus set approach goals, and parents with a high prevention focus set avoidance goals. In particular, we examined parents' regulatory focus as a moderator of the effect of goal setting on parenting and child behavior.

Methods

PARTICIPANTS

A total of 224 parent-child dyads participated. Parents (94% mothers, 5% fathers, 1% left open) were aged 23–54 years ($M = 38.58$, $SD = 4.84$), children (36% girls) were 4–8 years ($M = 5.74$, $SD =$

1.43). On average, parents reported high levels of disruptive child behavior at baseline (measured with the Eyberg Child Behavior Inventory: $M = 133.95$, $SD = 20.58$), corresponding to the 90th percentile (Dutch norm scores: Weeland, van Aar, & Overbeek, 2018). About a third of the parents indicated that they had previously sought professional help for their parenting situation or their child's behavior. Parents were predominantly White and well-educated (90% born in the Netherlands, 83% completed higher vocational or university-level training). A minority of the parents raised their child alone (12%). Table 1 shows parents' demographic characteristics per condition; Table 2 shows baseline scores for parent-reported positive parenting and disruptive child behavior. There were no significant differences between conditions.

RECRUITMENT

Parents were recruited through Dutch elementary schools. The schools advertised a research project in their newsletters on “the effectiveness of praise for children (aged 4–8 years) who tend to have difficulties complying with requests and obeying rules, or who get angry easily.” Much like parents who typically seek parenting support for these

behaviors, parents self-selected their participation based on the advertisement. More than 500 schools were contacted, about half of them agreed to advertise the research project in their newsletter. Both parents were allowed to participate in the brief intervention, but only one parent reported on parenting and child behavior. We did not exclude participants based on any researcher-generated criteria other than the age range of their child.

EXPERIMENTAL DESIGN

Parents were randomly allocated (through a random number generator ranging from 1 to 6 in SPSS) to one of six conditions: four goal-enhanced brief intervention conditions, a no-goal brief intervention condition, or a waitlist control condition. In the four goal-enhanced intervention conditions, parents were requested to set approach or avoidance goals, both at the start and the end of the intervention (i.e., before the start of the intervention phase and before the start of the post-intervention phase). Half of the parents set the same type of goals (i.e., approach or avoidance) at both occasions; half of the parents set one type of goal before the intervention and the other type of goal after the intervention. This resulted in a 2×2 design with four goal-enhanced intervention conditions: (1) continued approach goals, (2) initial approach and subsequent avoidance goals, (3) continued avoidance goals, and (4) initial avoidance and subsequent approach goals. Parents in the no-goal intervention condition received the same intervention but were not requested to set goals. Parents in the waitlist control condition did not receive any intervention and were not instructed to set goals. Randomization occurred after signing informed consent and baseline assessment. Researchers and parents were blind to family allocation status at baseline assessment. The study was approved by the research ethics committee of the University of Amsterdam under record 2016-CDE-7486, and preregistered at the Dutch Trial Register under record NTR6284 (<http://www.trialregister.nl>).

PROCEDURE

The experiment spanned 4 weeks. One week prior to its start, parents completed the baseline questionnaires. The brief intervention was a one-component intervention, encouraging parents to daily praise their child to reinforce positive behavior. This intervention has previously been found to reduce disruptive child behavior (Leijten, Thomaes, Orobio de Castro, Dishion, & Matthys, 2016). Immediately following the intervention phase, the second assessment (i.e., immediate follow-up) took place. Two weeks later, the third assessment (i.e., 2-week follow-up) took place.

Day 1, Start of Intervention Phase

In all intervention conditions (i.e., all conditions except the waitlist condition), parents were visited at home by a graduate-level research assistant. Parents were shown a 2-minute animated video and summarizing handout that instructed parents to be attentive to positive child behavior: "Take notice of your child's positive behavior, and pay attention to it, even if it is just something small," and reinforce positive child behavior: "Praise positive behavior enthusiastically: Effective praise is provided in an energetic, involved, and sincere way." The handout was hung in a prominent place in the family home (e.g., the fridge) as a reminder.

In the goal-enhanced intervention conditions, parents were shown an additional 2-minute animated video and summarizing handout that elaborated on either possible desired situations that could be approached by giving praise, or possible undesired situation that could be avoided by giving praise. Possible desired situations included "a better atmosphere at home" and "more positive child behavior." Possible undesired situations that could be avoided were similar to the desired situations, but were framed in opposite fashion: "a worsened atmosphere at home," or "less positive child behavior." After watching the video and receiving the handout, parents were asked to generate three condition specific goals: approach goals starting with the words "I want to approach..." or avoidance goals starting with the words "I want to avoid...."

Day 2–14, Intervention Phase

In all intervention conditions, parents wrote down, on a daily basis, three incidents of positive behavior that their child showed that day, and the praise they gave their child for this positive behavior. They received daily text messages as well as an unannounced phone call after one week to remind them of the study procedures. In addition, during the phone call, parents in the goal-enhanced intervention conditions were reminded of the goals they set on Day 1.

Day 15, End of Intervention Phase and Immediate Follow-up Assessment

After exactly 2 weeks, immediate follow-up took place. Parents completed questionnaires regarding their parenting behavior and their children's disruptive behavior over the past 2 weeks.

After assessment, the goal-enhanced component was repeated on Day 15 for the parents in the goal-enhanced intervention conditions. For the two conditions that did not switch goal orientation, parents watched the same video as at baseline. Parents then received the same handout, although it

had a different color (yellow rather than blue) to draw renewed attention to it. Lastly, parents were instructed to generate three new goals, formulated in line with their baseline approach or avoidance orientation. For the two conditions that did switch goal orientation, parents watched a video with an instruction formulated in opposite fashion as compared to the video they watched at baseline. They also received a summarizing handout with instruction in opposite fashion. This new handout was also yellow, and replaced the initial blue handout. Lastly, parents were instructed to generate three new goals, formulated in line with their new approach or avoidance orientation (i.e., from “I want to approach...” to “I want to avoid...” or vice versa).

Day 16–28, Post-Intervention Phase

In the 2 weeks post intervention, parents in the five intervention conditions received an unannounced phone call after 1 week to remind them of the upcoming follow-up. Parents in the four goal-enhanced intervention conditions were additionally reminded of the goals they set on Day 15.

Day 29, End of Post-Intervention Phase and 2-Week Follow-up Assessment

Again, exactly 2 weeks later, the second follow-up took place. Parents filled out questionnaires regarding their parenting behavior and their children’s disruptive behavior over the past 2 weeks. In addition, during an audio-recorded phone call, parents and children participated in a cleanup task with their child. Parents were then debriefed and received €15 for their participation.

After the 2-week follow-up assessment, parents in the waitlist condition were offered the approach goal-enhanced brief intervention. Parents who indicated that they wanted additional help were referred to more comprehensive parenting support ($n = 4$).

MEASURES

Positive Parenting

Parents’ self-reported parenting behavior was assessed at all three time-points using the Positive Parenting Scale of the Alabama Parenting Questionnaire (Frick, 1991). This questionnaire shows good internal consistency, validity, and test-retest reliability (Dadds, Maujean, & Fraser, 2003). This positive parenting scale consists of six items (e.g., “you let your child know when he/she is doing a good job with something”) that are rated along a 5-point scale (never – always). Internal consistency was low to adequate at all time points (Cronbach’s α ranged from 0.67 to 0.70).

At 2-week follow-up, we coded parents’ use of verbal praise during an audio-recorded cleanup

task. In their home-environment, and with their phone on speaker, parents and children opened a wrapped memory game that was given to them by the research team, and played the memory game for 5 minutes. Parents were asked to subsequently instruct their child to clean up the game (and to not assist them). Parents’ number of verbal praises were counted during the cleanup phase (corrected for the time this phase lasted). We followed the manual of the Dyadic Parent-Child Interaction Coding System (DPICS; Webster-Stratton, 1989) to decide on what classified as verbal praise. Praise included any specific or nonspecific verbalization expressing a favorable judgment on an activity, product, or attribute of the child (e.g., “good,” and “you’re doing a great job of picking up everything!”). A descriptive statement that did not include an evaluative word was not coded as praise (e.g., “you’ve picked up all the toys”). Interrater reliability of the three coders was good (20% overlap; intra-class correlation = .87).

Disruptive Child Behavior

Parent-reported disruptive child behavior was assessed at all three waves using the Intensity Scale of the Eyberg Child Behavior Inventory (Eyberg & Pincus, 1999). This questionnaire showed good internal consistency, validity, and test-retest reliability (Abrahamse et al., 2015). The Intensity Scale consists of 36 items (e.g., “has temper tantrums”) that are answered on a 7-point scale (never – always). Internal consistency was good at all time points (Cronbach’s α ranged from 0.87 to 0.91).

At 2-week follow-up, and similar to the assessment of parenting behavior, we complemented parents’ perspectives on disruptive child behavior with a cleanup task to assess children’s compliance (Kochanska & Aksan, 1995; Leijten et al., 2016). We coded children’s compliance by (1) the time it took the child to clean up the game, and (2) the number of verbal protests the child expressed during cleaning-up (corrected for the time this phase lasted). We used a stopwatch to measure children’s cleanup time, and followed the manual of the DPICS to code children’s verbal protests. Verbal protests included any verbalizations of noncompliance and smart talk (e.g., “No!” [following any command] and “What will you give me if I do it?”). Interrater reliability of three coders was good (20% overlap; intra-class correlation protests = .86, time to clean up = .97).

Parents’ Regulatory Focus

Parents’ dispositional promotion and prevention focus were assessed at baseline using the General Regulatory Focus Measure (Summerville & Roese,

2008). The promotion focus scale comprises of gain and non-loss subscales; the prevention focus scale comprises of loss and non-gain subscales. Because the non-loss subscale showed very low reliability (Cronbach's $\alpha = 0.26$), we opted to use only the gain subscale as an index of promotion focus, and only the loss subscale as an index of prevention focus. Thus, the promotion scale contained 5 items (e.g., "I typically focus on the success I hope to achieve in the future"), which were rated along a 9-point scale (not true at all – very true). The prevention scale also contained 5 items (e.g., "I frequently think about how I can prevent failures in my life"), rated along the same 9-point scale. Internal consistency was low to adequate ($\alpha = 0.69$ for promotion and $\alpha = 0.74$ for prevention focus).

ANALYSES

Before testing the effects of goal setting on parenting and child behavior, we used analysis of covariance (ANCOVA) to test whether the brief intervention without goal setting indeed improved positive parenting and disruptive child behavior at immediate and 2-week follow-up, controlling for these behaviors at baseline. In addition, parents' goals were coded on whether they were indeed framed as approach versus avoidance goals, and on their content. Specifically, we coded whether goals focused on change versus stability (i.e., changing current situation or keeping/preventing a situation), focused on parents or children, what the goal was about (i.e., a behavior, emotion, cognition, or situation), and whether the goal was concrete (i.e., whether or not the described state would be observable for an outsider). All goals were double coded by two independent coders; any coder disagreements were solved through discussion.

We used general linear modeling to test (1) whether families who set approach goals at the start of the intervention (i.e., two of the four goal-enhanced conditions) showed higher levels of positive parenting, and lower levels of disruptive child behavior, than did families who set avoidance goals or did not set any goals (i.e., the two other goal-enhanced conditions, and the no-goal intervention condition), as assessed at immediate follow-up and 2 weeks later. For the latter, we excluded the two "switched" goal-enhanced intervention conditions, because these families had set both approach and avoidance goals; (2) whether families who set approach goals at the start of the intervention and avoidance goals at the end of the intervention (i.e., one of the four goal-enhanced conditions) benefited more from the intervention at 2-week follow-up than did families who set a different combination of approach and avoidance goals (i.e., the three other

goal-enhanced conditions); and (3) whether the extent to which families benefitted from the approach and avoidance goal-enhanced interventions depended on parents' habitual promotion and prevention focus (i.e., the four goal-enhanced conditions). To correct for multiple testing, we chose an alpha level of $p = .01$. Power to detect a medium effect ($d = 0.30$) using ANCOVA with 147 participants, four groups and one covariate (baseline level of the outcome variable) was 0.83.

Results

PRELIMINARY ANALYSES

Data Distribution

Scores on parent-reported parenting and child behavior approached normal distributions (skewness and kurtosis < 1). Scores on audio-recorded positive parenting (number of verbal praises) and disruptive child behavior (time to clean up and number of verbal protests) were positively skewed (most children scored below the median), and therefore log transformed. Cook's distance tests showed that there were no multivariate outliers (Cook's distance for extreme values was < 1).

Missing Data

Thirty parents (13%) had missing data on one or more variables at 2-week follow-up (e.g., no audio recordings), and an additional 13 parents (6%) dropped out of the study after the baseline assessment. Parents who dropped out of the study were equally distributed across conditions, and did not differ from other parents in terms of age, gender, educational level, or baseline parenting and child behavior. However, parents who dropped out more often had a migration background ($\chi^2 = 7.38$, $p = .007$). We dealt with these missing data using Multiple Imputation in SPSS version 24. We created 20 imputed datasets on the item level (Gottschall, West, & Enders, 2012) and report the pooled statistics (which influences error degrees of freedom for F -tests; van Ginkel & Kroonenberg, 2014).

Main Intervention Effects

We replicated and extended the effects of the brief intervention as reported by Leijten et al. (2016). Specifically, compared to the waitlist control condition, parents who received the intervention without goal setting reported reduced disruptive child behavior, both immediately after the intervention and 2 weeks later (immediate follow-up $F[1, 72] = 7.07$, $p = .010$, $d = 0.57$; 2-week follow-up $F[1, 71] = 6.89$, $p = .011$, $d = 0.59$). Importantly, these parent-reported intervention effects generalized to children's actual behavior as assessed via the audio-recordings: Children whose parents received the intervention more readily complied and cleaned up faster, $F(1, 73) =$

FIGURE 1 Self-reported positive parenting per goal-enhanced intervention condition. Note. The dashed lines show the levels of positive parenting for parents who switched goal orientation at the end of the intervention.

9.83, $p = .003$, $d = 0.55$, although they did not verbalize less protest while cleaning up, $F(1, 65) = 0.07$, $p = .796$ (Table 2). Parents who received the intervention reported improved positive parenting behavior immediately after the intervention, and 2 weeks later, but this improvement was not larger than observed in the control condition (immediate follow-up $F(1, 69) = 0.23$, $p = .630$; 2-week follow-up $F(1, 70) = 0.27$, $p = .605$). However, the audio recordings showed that parents who received the intervention did praise their children significantly more often during the cleanup task than did parents in the control condition, $F(1, 67) = 4.99$, $p = .029$, $d = 0.60$.

Description of the Approach and Avoidance Goals
Across the four goal-enhanced intervention conditions, parents' goals focused mostly on change, rather than stability (96% of the goals). In the approach goal condition, this meant that parents set goals about future situations that they wanted to attain (e.g., "that she feels better about herself"), rather than current situations that they wanted to keep (e.g., "that she stays as happy as she is now"). In the avoidance goal condition, this meant that parents set goals about current undesired situations that they wanted to cure (e.g., "that he gets angry all the time"), rather than future situations that they wanted to prevent (e.g., "that he gets antisocial").

Furthermore, parents' goals focused mostly (81%) on their children (e.g., "that he uses bad behavior to get attention"), rather than on themselves (e.g., "that I only see the bad behavior"). Goals were mainly (65%) about behaviors (e.g., "that she hits her sister"), rather than emotions, cognitions, or situations (e.g., "that she feels more appreciated"). Finally, about 40% of the goals were concrete (e.g., "that she gets ready for school: brush her hair, put on her shoes in time"), rather than abstract (e.g., "that the atmosphere in our house is more positive"). There were no differences

between approach and avoidance goals on whether they focused on change versus stability, parents versus children, or behaviors versus emotions, cognitions, or situations. However, avoidance goals were more often concrete than were approach goals (41% versus 29%, $\chi^2 = 6.87$, $p = .032$).

EFFECTS OF APPROACH AND AVOIDANCE GOAL SETTING

There was no effect of (approach or avoidance) goal setting at the start of the intervention on the self-reported positive parenting, $F(2, 177) = 3.48$, $p = .033$, and audio-recorded verbal praise that parents gave during the cleanup task, $F(2, 180) = 2.58$, $p = .078$ (see Table 2 for means and standard deviations). That means that adding goal setting (without specifying approach or avoidance goals) had no overall added value.

There was one trend towards a beneficial effect of avoidance goals. Post-hoc analysis shows that parents who set avoidance goals reported significantly greater improvement in positive parenting than did parents who set approach goals or no goals, $F(1, 164) = 6.97$, $p = .009$, $d = 0.39$. The beneficial effect of setting avoidance goals on self-reported positive parenting remained at 2-week follow-up, $F(1, 178) = 8.56$, $p = .004$, $d = 0.44$ (see also Figure 1).

We found no effect of goal setting at the start of the intervention on parent-reported changes in their children's disruptive behavior at immediate follow-up, $F(2, 182) = 0.12$, $p = .887$, or 2 weeks later, $F(2, 182) = 0.27$, $p = .761$. Cleaning-up time and verbal protests did not differ across conditions either, $F(2, 183) = 0.25$, $p = .778$ and $F(2, 178) = 0.15$, $p = .863$ (see Table 2). Parent-reported and audio-recorded disruptive child behavior reduced over time (i.e., at immediate and 2-week follow-up), but they did so in all intervention conditions, regardless of the goals that parents set.

DO GOAL SETTING EFFECTS DEPEND ON THE PHASE OF CHANGE?

Goal effects did not depend on the phase of change. Setting approach goals at the start of the intervention, and switching to avoidance goals at the end, did not enhance intervention effects, nor did any other combination of start- and end-of-intervention goals. More specifically, there was no interaction between the start- and end-of-intervention goals on self-reported positive parenting, $F(1, 123) = 0.12$, $p = .729$, audio-recorded praise, $F(1, 123) = 0.09$, $p = .761$, parent-reported disruptive child behavior, $F(1, 139) = 1.92$, $p = .168$, audio-recorded cleanup time, $F(1, 141) = 0.64$, $p = .424$, and audio-recorded verbal protests, $F(1, 128) = 0.39$, $p = .534$.

DO GOAL SETTING EFFECTS DEPEND ON PARENTS' REGULATORY FOCUS?

On average, parents reported having a stronger promotion focus than prevention focus, $M_{prom} = 31.02$, $M_{prev} = 22.43$, $t = 13.65$, $p < .001$. Parents' promotion and prevention focus were unrelated to their baseline reports of parenting behavior. Parents who reported having a stronger prevention focus did report more disruptive child behavior (see Table 3).

Goal setting effects on parenting and child behavior did not depend on parents' regulatory focus. Specifically, the Goal Setting Condition $\times$ (centered) Regulatory Focus interactions were non-significant for the models predicting parent-reported positive parenting and disruptive child behavior, and audio-recorded parental praise, as well as child cleanup time and verbal protest ($ps > .05$).

Discussion

People who pursue approach goals, focusing on attaining or maintaining desired outcomes, are more likely to achieve their goals than are those who pursue avoidance goals, focusing on preventing or solving undesired outcomes (Elliot, 2006). We tested, for the first time, whether this assumption holds for changing positive parenting behavior, and its downstream consequences for disruptive child behavior. If it does, this may suggest that setting approach goals can enhance the effectiveness of parenting programs designed to reduce disruptive child behavior. Specifically, we conducted a randomized field experiment to test whether requesting parents to set approach goals (rather than avoidance or no goals), enhances the effects of a brief intervention that encourages parents to praise their children. We also tested whether putative effects of goal setting are dependent upon the phase of behavior change (i.e., initiation or maintenance of behavior change), and on parents'

Table 3

Correlations Between Baseline Parent and Child Characteristics

	1	2	3	4
1. Positive parenting	—			
2. Disruptive child behavior	-.10	—		
3. Promotion focus	.07	-.10	—	
4. Prevention focus	-.10	.25 **	.05	—

** $p < .001$

habitual regulatory focus (high versus low promotion and prevention focus).

Overall, adding goal setting to the parenting intervention did not increase parenting intervention effects. When examining approach goal setting specifically, we found no evidence that setting approach goals promoted parenting behavior change, a finding that contrasts findings in other behavioral domains (e.g., academic achievement, healthy eating; Elliot et al., 2005; Sullivan & Rothman, 2008). In fact, we found some evidence that *avoidance* goals promoted parenting behavior change, although this effect pertained to parents' perceived improvements in positive parenting specifically—it did not generalize to audio-recorded positive parenting or disruptive child behavior.

Several characteristics of the evaluated parenting intervention may explain its effects on both parent-reported and observed outcomes, and why goal setting did not enhance these effects. The intervention focused on increasing parental praise, a component that has repeatedly been associated with stronger intervention effects (Kaminski, Valle, Filene, & Boyle, 2008; Leijten et al., 2019), and guidance towards obtaining this increase in praise was built in with frequent prompts and instructions to self-monitor. Parents were encouraged to praise their children every day for positive behavior, and to write about it on a daily basis. Thus, parents knew which steps to take, and they monitored their progress. This clear focus and structure may explain why the brief and mainly self-directed intervention yielded relatively strong and robust effects on parenting and child behavior, and why goal setting was superfluous.

The post-hoc finding that avoidance goals increased parents' perceived positive parenting practices may be explained by the concreteness of the avoidance goals. We speculate that perhaps it was easier for parents to imagine concrete undesired situations that they wanted to avoid ("cure") than desired situations they wanted to approach, because the undesired situations fit their everyday experiences—as underscored by the high level of disruptive child behavior reported by parents at baseline. Concreteness is one of the core properties of an effective goal, because it

provides a clear end state and one is able to monitor progress (Locke & Latham, 2002). Avoidance goals may thus have resonated more with parents' everyday experiences, therefore being more concrete and easy to monitor, which in turn may have led to more perceived change in positive parenting. That said, because the finding pertained to one of the four outcomes only, it should be interpreted with caution.

Goal setting effects depended neither on the phase of change, nor on parental regulatory focus. With regard to phase of change, we found no support for the hypothesis that it would be particularly effective if parents set avoidance goals once initial behavior change is achieved. In studies that did find support for this hypothesis, participants typically focused on preventing a future or previous undesired state, which may enhance stability rather than change (e.g., remaining a nonsmoker to prevent future illness; Worth et al., 2005). In our case, however, parents may have focused on curing a current undesired state. It would be interesting to see whether avoidance goals in the form of future prevention goals indeed become more helpful for maintaining behavior when implemented after initial behavior change is achieved.

With regard to parental regulatory focus, it is possible that parents' regulatory focus for *parenting* specifically, rather than parents' general regulatory focus across contexts, influences the effects of goal setting in parenting interventions (as has been observed in the domain of medical care; Gomez, Borges, & Pechmann, 2013). A potentially interesting avenue for future research is to test whether tailoring parenting intervention to parents' parenting-specific regulatory focus enhances intervention effects.

STRENGTHS AND LIMITATIONS

With our experimental test of behavior change theory in the context of a brief parenting intervention, we bridged basic research on behavior change and applied research on parenting intervention effectiveness. We used an evidence-based intervention that did not include goal setting, but only targeted parental use of praise, one of the core components of evidence-based parenting interventions for disruptive child behavior (Leijten et al., 2019). This enabled us to test experimentally the additional value of goal setting, including its time and effort demands. Finally, we included audio recordings of parenting and child behavior that are less subjective than parental reports and less intrusive than video observations.

Our study also has several limitations. First, to increase ecological validity (i.e., to mirror current

use of goal setting in clinical practice), we conducted a field experiment with a subtle manipulation of parental goal setting. Specifically, we guided parents into an approach or avoidance goal-orientation with a 2-minute video clip, after which we explicitly asked them to set approach or avoidance goals. Although this is an established approach (e.g., Latimer et al., 2008), we cannot be sure to what extent parents actually internalized the goal orientation, or to what extent they actually adhered to the set goals. Second, we controlled the time of both initiation and maintenance phases to 2 weeks each, allowing us to rule out possible confounding effects of time that could occur if families in some conditions change faster than families in other conditions. The disadvantage of this approach is that, first, we were unable to tie the goal orientation shift to the exact moment that parents moved from the initiation to maintenance phase, which may differ per family (as shown by differences in the number of sessions needed to adopt parenting strategies; e.g., Abrahamse et al., 2012), and, second, we were unable to test whether effects on child behavior extended beyond the 2-week follow-up. Third, the experimental praise manipulation also targeted parents' general attentiveness to positive child behavior, which may be linked to other positive parenting practices apart from praise. Thus, we cannot fully discount an alternative explanation to the "praise effect." Fourth, we conducted a large number of prespecified comparisons and have therefore reduced the alpha level to $p = .01$. Yet, we cannot rule out the possibility of false positives. Fifth, we needed to reduce our regulatory focus measure to two main subscales (i.e., losses and gains), because of the low reliability of other subscales. Our estimation of parents' promotion and prevention focus therefore pertains to parents' focus on losses and gains specifically. Sixth, the parent-reported positive parenting scale had low to adequate reliability which limits our ability to generalize the results to the larger group of parents. Finally, most families in our study were well-educated and stable (i.e., two-parent households). Our findings may not generalize to other cultures or samples.

IMPLICATIONS AND RECOMMENDATIONS

Our finding that approach goals failed to enhance intervention effects does not support current practice in more comprehensive parenting interventions (e.g., IY, Webster-Stratton, 2001; PMTO, Forgatch & Patterson, 2010; Triple P, Sanders et al., 2009). In many of these interventions, parents are asked to generate approach goals in the first sessions, and to reframe any avoidance goals they

have into approach goals. Our findings do not suggest that this form of goal setting harms or represses behavior change, only that it does not enhance behavior change. Because we tested the effects of setting approach and avoidance goals in a brief, one-component intervention, our findings are not readily generalizable to current practice. That said, should our findings be replicated in comprehensive parenting interventions implemented in clinical practice, program developers and practitioners could consider putting less focus on goals that reflect an approach orientation, and more on goals that are concrete.

We thus recommend future research to test the value of setting approach goals in more comprehensive parenting interventions. This could be done by randomizing families to different versions of the same intervention: one that encourages parents to set approach goals (reflecting current practice), and one that encourages parents to set their own goals, without being steered towards approach goals. In addition, research on the mechanisms underlying parental behavior change is needed to improve understanding of when and why families benefit from parenting interventions. These mechanisms can be studied, for example, using time-series mediational designs that track parents' thoughts and behavior on a daily basis, shedding light on their internal motives to initiate and maintain change, and the influence of external factors.

CONCLUSION

We found that a brief intervention to increase parents' use of praise was effective for increasing positive parenting and for reducing disruptive child behavior. We found no robust evidence to suggest that goal setting enhanced intervention effects. Goal setting affected only one of the study outcomes: When parents generated avoidance goals focused on changing a current undesired situation, this increased perceived improvements in parenting. Our test of goal setting in the context of a brief and well-structured parenting intervention suggests that approach goals do not enhance behavior change.

Conflict of Interest Statement

The authors declare that there are no conflicts of interest.

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