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ORIGINAL PAPER

How-to-Parenting-Program: Change in Parenting and Child Mental Health over One Year

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Abstract

A pre-post pilot study suggests that the How-to Parenting Program (Faber & Mazlish, 2012) could improve parenting quality (structure, affiliation, autonomy support) and child mental health (Joussemet et al., 2014). However, whether improvements are maintained over time and whether they are reported by all parents remain unclear. In this study, we followed Joussemet et al.'s sample of parents during one year after their program participation. A total of 93 parents of elementary school children reported on their parenting practices and evaluated their children's externalizing and internalizing problems at pre- and post-test, and again at 6- and 12-month follow-ups. Multivariate multilevel analyses revealed that linear and quadratic trends over the four assessments were significant for all variables, except for affiliation (linear trend only). Affiliation improvements continued to increase over time whereas all other improvements generally occurred before the six-month follow-up and then stabilized (or decreased) from the six-month to the one-year follow-up. Exploratory analyses revealed that only parent gender and child age moderated improvements in some aspects of parenting, but no other moderation was observed. Positive associations between parenting and child mental health change were also observed. These results suggest that the How-to Parenting Program could yield long-term benefits for many families.

Keywords Affiliation · Autonomy support · Child mental health · How-to Parenting Program · Structure

Highlights

- The How-to Parenting Program includes skills to provide structure, affiliation, but also autonomy support.
- Parents reported improvements in all parenting dimensions several months after participating in the program, compared to baseline.
- Parents reported fewer child externalizing problems several months after participating in the program, compared to baseline.
- A linear trend was observed for affiliation, while changes in other outcomes followed a quadratic pattern.

In childhood, the quality of emotional and behavioral regulation is at the heart of child mental health. Child problems may be categorized into two broad categories: externalizing (E) and internalizing problems (I-problems; Achenbach, 1998; Eisenberg et al., 2000). While children with E-problems (e.g., opposition; aggression) tend to experience self-regulation difficulties in general, children with I-problems (e.g., anxiety; depression) struggle with emotional regulation and tend to regulate their behaviors in overly rigid ways (Eisenberg et al., 2001). The prevalence of these symptoms is alarming with 10% of youth suffering from a serious mental health problem and another 10% presenting mild to moderate symptoms (Breton et al., 1999; Egger & Angold, 2006). Longitudinal studies also show that adults reporting mental health problems have often experienced forewarning difficulties in childhood, making interventions targeting child mental health a social imperative (Maughan & Rutter, 2008).

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Parenting and Child Mental Health

Given the vast influence that parents have on their children's mental health (Collins et al., 2000), parenting training has been proposed as the intervention of choice for preventing and treating childhood problems (Sanders et al., 2003; Taylor & Biglan, 1998). Parenting research points to three key parenting dimensions that are consistently associated with child mental health, namely affiliation, structure, and autonomy support (Aunola & Nurmi, 2005; Barber & Olsen, 1997; Gray & Steinberg, 1999; Grolnick & Ryan, 1989; Schaefer, 1965). Affiliation refers to parenting behaviors related to a caring interpersonal involvement, akin to parental acceptance, warmth, nurturance, and emotional availability (Ainsworth et al., 1978; Schaefer, 1965). Structure (also called behavioral control or limit setting) refers to the provision of clear and consistent rules, feedback, expectations, and consequences (Grolnick & Pomerantz, 2009). This dimension promotes children's behavioral and social competencies, two key factors in the prevention of antisocial behaviors (Patterson & Fisher, 2002). Finally, autonomy support refers to parents' promotion of volitional functioning (Soenens et al., 2007) and includes parents' consideration and respect for children's internal frame of reference, the provision of meaningful rationales that facilitate internalization, and support for children's initiatives and agentic behaviors (Grolnick & Ryan, 1989; Koestner et al., 1984; Mageau et al., 2015). More generally, autonomy-supportive behaviors may be characterized as empathic, informational, and supportive of child active participation (Mageau & Joussemet, 2022).

Affiliation, structure, and autonomy support are essential to actively support children's need for relatedness, competence, and autonomy (Ryan & Deci, 2017). Together, they also create an authoritative style of parenting that, compared to more coercive or permissive styles, has been shown to promote child mental health (e.g., Barber & Olsen, 1997; Baumrind, 1971; Lohaus et al., 2009). Each of these parenting dimensions has been individually associated with diverse socio-emotional strengths (e.g., prosocial behaviors, autonomous regulation, social and academic adjustment) and fewer E- and I-problems, while their behavioral opposites are consistently linked to mental health problems (Barber et al., 2005; Joussemet et al., 2008). In light of this literature, parenting training that helps parents develop all of these essential parenting dimensions should be key in promoting child mental health.

Parenting Training

Yet, most evidence-based parenting programs either target affiliation and autonomy support (its empathic component; e.g., Bernard et al., 2012; Havighurst et al., 2013) or structure, affiliation, and the reduction of controlling behaviors (e.g., Bunting, 2004; Serketich & Dumas, 1996; Taylor & Biglan, 1998), with seemingly similar effects (Duncombe et al., 2016). This is unfortunate given that each parenting dimension predicts a host of positive child outcomes even after accounting for the effects of the other dimensions (e.g., Gray & Steinberg, 1999; Joussemet et al., 2008; Mageau et al., 2015). A meta-analysis (Kaminski et al., 2008) also reveals that empathy (e.g., empathic listening; following child's interest), positive interactions, and consistent responding, key components of autonomy support, affiliation, and structure respectively, are the three most active ingredients that increase the efficacy of parenting training. Teaching all three parenting dimensions is especially important because parents' instinctive response to situational stressors is to resort to more coercive practices (e.g., Robichaud et al., 2020).

In the parenting domain, only two studies documented the effects of teaching affiliation, structure, and autonomy support. In the first study, Froiland showed that when parents of 4th-5th graders were taught how to use warm and autonomy-supportive structuring strategies during homework time, their children displayed more autonomous motivation for learning and reported more positive affect relative to a comparison group (Froiland, 2011). In another study, Grolnick et al. (2021) designed a two-session preventive individualized parenting intervention to facilitate the same parenting dimensions. Fifty-seven parents of 8–12-year-olds participated in this randomized controlled trial. Results showed that parents in the intervention condition reported greater decreases in controlling parenting compared to parents in the waitlist condition, while their children reported greater increases in autonomy support and less child hostility. These studies echo past experimental work showing that children fare better in an autonomy-supportive environment (e.g., Grolnick et al., 2002; Joussemet et al., 2004; Koestner et al., 1984) and suggest that the three parenting dimensions of authoritative parenting can be taught with positive impacts.

The How-to Parenting Program

The parenting program tested herein—the *How to talk so kids will listen & listen so kids will talk* program (How-to program; Faber & Mazlish, 2012)—adopts this broader perspective on parenting and teaches all three dimensions of authoritative parenting. First developed in 1980, this seven-week program is still widely popular among parents after 40 years (still highly ranked in lists of popular parenting

books) but its efficacy has never been formally evaluated. The How-to Program is based on Ginott (1965)'s writings, which also informed the operational definition of autonomy support (Koestner et al., 1984). Parents learn how to listen and respond to their children in a way that helps them feel loved and accepted for who they are. They also learn how to provide support, set limits, communicate expectations, give feedback, follow through with logical consequences (e.g., make amends), and use problem solving in a way that is more empathic, informational, and supportive of child active participation (the three main features of autonomy support). For example, parents are taught autonomy-supportive strategies to facilitate child cooperation (e.g., acknowledge feelings, provide information, state expectations, give choices of possible alternative behaviors, problem-solve). When transgressions do occur, parents are encouraged to address the transgression-induced problem and require children to take responsibility for their actions (see Mageau et al., 2018, for details on the distinction between these authority exertion strategies and punishments). By teaching skills that target affiliation, structure, and autonomy support, the How-to Program is well fitted to promote child mental health.

This program also has several key features that increase the effectiveness of parenting training. It is offered in a group format, which increases cost-effectiveness and facilitates access (Cunningham et al., 1995). It is also manualized, skill-based, includes hands-on activities (Kaminski et al., 2008), is culturally sensitive (Sanders, 2001), and addresses parents' potential resistance to change (Patterson & Chamberlain, 1994). Specifically, it optimizes parents' motivation and learning through perspective taking activities, and the use of comic strips to teach parenting skills, role-playing, and skill practice. Importantly, it focuses on *how* parents can most effectively communicate rules by teaching concrete communication skills, as opposed to *what* those rules ought to be, which makes it particularly relevant in multicultural contexts. Finally, the How-to Program was designed to be offered to all families with elementary school children, which facilitates outreach (Shaw et al., 2006).

Offering support to these families is important as elementary school years entail a specific set of developmental challenges (Blacher & Feinfield, 2013) that are likely to be more effectively met with skillful parenting. For example, it is during elementary school that children first experience competition and grades (Stipek & Mac Iver, 1989). It is also at this age that parents begin to have greater expectations in terms of child behavioral regulation (Blacher & Feinfield, 2013). Having access to parenting training could thus prevent problematic interactional patterns from setting in during this unique developmental stage.

Preliminary Evidence of the Program's Benefits

Despite its numerous positive features, only two pre-post studies have documented the potential impact of the How-to Program. Fetsch and Gebeke (1995) first showed that participation in the program is associated with higher parental self-esteem and family coping through acceptance and optimistic appraisals of difficulties. Joussemet et al., (2014) then showed that parents who attended the program reported increased structure, affiliation, and autonomy support at post-test, compared to baseline. Children (aged eight years and up) reported a similar increase in parental autonomy support during that same period but observed no significant difference in structure and affiliation, though mean differences were in the expected direction. Moreover, parents reported decreases in both E- and I-child symptoms at post-test compared to baseline, while their children experienced positive changes in their subjective well-being. Moderate to large, these effects occurred over two months (post- vs. pre-test).

Although important, these studies did not include follow-up assessments of parenting and child mental health, nor did they adopt an intent-to-treat approach where participants with missing data could be included in the analyses. Additional research is thus warranted to evaluate the stability of observed changes over a longer period and use a more sophisticated approach to missing data. Evaluating long-term changes is particularly important given that the effects of parenting training seem to decrease over time (Lundahl et al., 2006). Moreover, many child and parent characteristics could moderate the effectiveness of parenting programs. Yet, these studies have not investigated whether the How-to Program is beneficial for all families.

Potential Moderators of the Efficacy of Parenting Programs

Past research suggests that demographic variables and child temperament can influence parenting and child mental health or moderate the efficacy of parenting programs. For example, in elementary school, girls display more I-problems than boys (Vitaro & Gagnon, 2000) but boys may show greater improvements in conduct problems after parenting training (Gardner et al., 2010). With regards to child age, its potential influence on the efficacy of parenting training remains uncertain (Lundahl et al., 2006) as is the influence of parental age and gender. Indeed, while a young age can be an obstacle to parental participation (Kazdin & Wassell, 1999), there is no clear evidence that parental age moderates the efficacy of parenting training (Cedar & Levant, 1990). Similarly, most recent studies suggest that mothers and fathers display similar levels of autonomy support (van der Kaap-Deeder et al., 2020)

and controlling parenting (Eddy et al., 2001), though one study observed stronger relations between parenting quality and child mental health indicators for mothers compared to fathers (Aunola & Nurmi, 2005). Finally, it is well-established that bidirectional associations exist between parent and child behaviors (e.g., Rothenberg et al., 2020) and that child temperament plays a role in parenting quality (Lengua, 2006). In particular, negative affectivity, one of the most heavily researched temperamental traits referring to children's proneness to distress (anger, sadness, fear; Bates et al., 1994), predicts less supportive parenting, while being related to E- and I-problems (van den Akker et al., 2010). Negative affectivity, just like demographics, could thus moderate changes in parenting and child mental health following participation in the How-to Program.

The Present Study

The goal of this study was to assess the stability of Joussemet et al., (2014)'s observed changes in parenting and child mental health over one year, using multivariate multilevel modeling. To do so, we contacted Joussemet et al.'s sample at six-month and one-year follow-ups and asked parents to complete assessments of parenting quality (i.e., affiliation, structure, autonomy support) and child mental health (i.e., E- and I problems). We expected that improvements in parenting and child mental health from pre- to post-test initially reported in Joussemet et al. would remain significant throughout follow-ups.

In a more exploratory fashion, we also verified if parental age and gender, as well as child sex, age, and negative affectivity, moderated parent-reported changes in parenting and child mental health across assessments. We expected greater improvements among children displaying higher negative affectivity (Belsky & Pluess, 2009) and among boys (Gardner et al., 2010) but could formulate no clear hypothesis for child age or parental age and gender. Finally, in an attempt to verify if changes in child mental health could potentially be attributed to changes in parenting following program participation, we evaluated whether changes in authoritative parenting from baseline to the six-month follow-up were associated with changes in child mental health across all assessments. We expected that larger improvements in parenting quality would be positively linked to larger decreases in E- and I-problems.

Method

Participants

A total of 93 parents participated in this study. Recruitment procedures and the composition of this sample are fully reported in Joussemet et al., (2014). Recruitment took place in seven elementary schools in a metropolitan area in Canada, for 3 years. Adopting a universal approach, all parents were invited to participate and school staff were asked not to target any parent, to ensure voluntary enrollment. The only exclusion criterion was the incapacity to understand the language of program delivery (French). Table 1 presents the characteristics of participating parents and their targeted children. Overall, this was an upper-middle-class and predominantly French-speaking sample.

Procedure

All procedures were approved by the institutional ethics board of the first author's university. After gaining permission from school boards and elementary school principals, an information pamphlet describing the parenting program and the study was distributed via children's school bags. No information about potential benefits was provided to keep parents as blind as possible to the research hypotheses. Parents manifested their interest in the study by returning the flyer to their school. The research coordinator contacted all interested parents to explain the study in more detail, sent them a consent form, and registered them for the program upon reception of their signed consent form. A total of 100 parents from 93 different families participated in the program. When both parents of a family participated, only the data of one participating parent per family were included in the analyses. When couples attended the program together, data from mothers were kept. When parents attended different groups spaced in time, data from the first participating parent were kept. Parents with more than one child attending elementary school were asked to answer child-related questions based on the child they were thinking of when signing up for the program.

Parents were invited to complete baseline and follow-up assessments of parenting quality and child mental health. In total, parents completed four questionnaires, one before the first session of the program (T1), one immediately at the end of the 2-month delivery (T2), and one at 6- and 12-month follow-ups (T3 and T4) for a total period of 14 months. T1 and T2 questionnaires were completed during the introductory and integrative sessions of the program respectively, while follow-ups were sent by mail. We collected demographics and assessed child negative affectivity at T1 only, whereas we assessed parenting dimensions and child mental health at all assessments.

Parenting Program, Content Coverage, and Exposure

The How-to Program (Faber & Mazlish, 2012), also described in Joussemet et al., (2014), is a manual-based, 7-weekly session program that teaches parents how to

Table 1 Demographic information and outcome means across assessment times

Parent Characteristics *n* (%)				
Gender				
Women	75 (80.6%)			
Men	18 (19.4%)			
Parent education				
High school	9 (9.7%)			
Post-secondary	16 (17.2%)			
University	68 (73.2%)			
Annual family revenue				
<15,000	8 (8.6%)			
15,000–30,000	7 (7.5%)			
30,000–50,000	17 (18.3%)			
50,000–100,000	32 (34.4%)			
>100,000	27 (9.0%)			
	T1	**T2**	**T3**	**T4**
	Mean (SD)	**Mean (SD)**	**Mean (SD)**	**Mean (SD)**
Age (years)	39.25 (6.06)			
	$n = 93$			
How-to Parenting skills	4.95 (1.00)	6.77 (1.09)	6.42 (0.98)	6.39 (0.95)
	$n = 91$	$n = 85$	$n = 58$	$n = 51$
Structure	6.73 (1.04)	7.00 (0.89)	7.08 (0.95)	7.01 (1.08)
	$n = 93$	$n = 85$	$n = 59$	$n = 48$
Affiliation	5.87 (0.62)	6.02 (0.60)	6.04 (0.52)	6.10 (0.66)
	$n = 93$	$n = 85$	$n = 59$	$n = 53$
Autonomy support	5.39 (0.81)	5.82 (0.71)	5.73 (0.58)	5.64 (0.66)
	$n = 93$	$n = 85$	$n = 59$	$n = 53$
Child Characteristics *n* (%)				
Sex				
Girls	43 (47.8%)			
Boys	47 (52.2%)			
	T1	**T2**	**T3**	**T4**
	Mean (SD)	**Mean (SD)**	**Mean (SD)**	**Mean (SD)**
Age (Year)	7.73 (2.05)			
	$n = 90$			
Temperament	4.38 (0.89)			
	$n = 92$			
Internalizing problems	0.27 (0.19)	0.14 (0.13)	0.15 (0.14)	0.16 (0.16)
	$n = 93$	$n = 84$	$n = 58$	$n = 53$
Externalizing problems	0.30 (0.21)	0.19 (0.16)	0.21 (0.16)	0.21 (0.22)
	$n = 93$	$n = 85$	$n = 59$	$n = 53$

Theoretical ranges are: 1–9 for How-to Parenting Skills and Structure, 1–7 for Affiliation, Autonomy Support, and Temperament, and 0–2 for Internalizing and Externalizing Problems

communicate structure and affiliation in a way that supports child autonomy. An initial session was added, allowing the T1 collection and the introduction to the program and participants. Each of the six topical 2.5-h sessions starts with an experiential empathy-building exercise, where parents consider how they would feel if they heard what children typically hear. Using comic strips and a collaborative approach, parents then learn and practice skills that can replace suboptimal comments (30 skills).

Two facilitators led groups of six to twelve parents. Sessions were delivered weekly at the schools where parents were recruited. Content coverage was high as facilitators reported covering 93% of the program's content. Exposure was also high, with 85% of parents missing between 0–2 sessions (41% attended all sessions; 15% missed 3–5 sessions). We used an intent-to-treat approach and included all participants in the analyses.

Measures

How-to parenting skills implementation

To verify that some skills implementation occurred, we designed a 12-item questionnaire to document the extent to

which parents used some of the How-to parenting skills at each assessment. This questionnaire presents pairs of images depicting parent-child interactions in typical situations (e.g., the child needs help with homework; is sad; has lost something; left toys on the floor or milk on the table). For each situation, one anchor of a 9-point semantic differential item depicts skills taught in the Program while the other anchor depicts other typical strategies (e.g., "Milk turns bad when left on the table" vs. "You left the milk on the table again, put it in the refrigerator right now"). For each item, parents indicate which of the two illustrations best describes how they generally interact with their child (1 or 9 = *This looks a lot like what I do*; 3 or 7 = *I tend to do this more*; 5 = *I sometimes do this, sometimes that*). Each item is based on an actual program's example and only those that could be comprehensible before attending the program were kept (e.g., recognize feelings vs. provide reassurance; provide information vs. give instructions). Internal consistency was acceptable (Cronbach α T1/T2/T3/T4 = 0.64/0.83/0.78/0.75).

Parenting dimensions

Structure was measured with nine items from the Laxness subscale of the Parenting Scale (Arnold et al., 1993). This scale assesses the extent to which parents are permissive, give in, and allow rules to go unenforced, as contrasted with being in control, setting limits, and enforcing rules, using semantic differential items (e.g., I'm the kind of parent that … sets limits on what my child is allowed to do vs. lets my child do whatever he/she wants) using the same 9-point response scale as described above. Items were coded such that higher scores represent more parental structure. Internal consistency was good (Cronbach α at T1/T2/T3/T4 = 0.75/0.72/0.81/0.84).

Affiliation was measured with ten items from the Care subscale of the Parental Bonding Instrument (Parker et al., 1979), which assesses parents' caring involvement including warmth and responsiveness. Parents rated their behaviors toward their child (e.g., I often smile at my child) on a 7-point scale (1 = *Almost never* to 7 = *Almost always*). Internal consistency was good (Cronbach α at T1/T2/T3/T4 = 0.79/0.80/0.78/0.86).

Autonomy support was measured with the Parental Attitude Scale (Gurland & Grolnick, 2005), which consists of ten statements concerning autonomy-supportive and controlling practices (e.g., I encourage my child to make his/her own decisions) rated on a 7-point response scale (1 = *Do not agree at all* to 7 = *Very strongly agree*). Higher scores on this scale indicate more autonomy support and less controlling attitudes. This scale has been positively and negatively linked to observational measures of autonomy-supportive and controlling parenting, respectively (Gurland & Grolnick, 2005). Internal consistency was acceptable (Cronbach α at T1/T2/T3/T4 = 0.76/0.74/0.62/0.70).

For our exploratory analyses, scores on the three parenting dimensions were averaged to obtain a global score of authoritative parenting at each assessment. Correlations among parenting dimensions are presented in Table 2.

Child mental health

Child E- and I-problems were assessed with the Child Behavior Checklist (CBCL, 6–18; Achenbach & Rescorla, 2001). The 32-item I-problems subscale reflects anxiety, depression, withdrawal, and somatic symptoms. The 35-item E-problems subscale evaluates rule-breaking and aggressive behaviors. Parents rated each item on a 3-point scale (0 = *Do not apply* to 2 = *Always or often true*). Internal consistency was good (Cronbach α T1/T2/T3/T4 for I-problems = 0.82/0.78/0.82/0.86, for E-problems = 0.88/0.86/0.86/0.89). Norms associated with this questionnaire were used to identify which children presented E- and I-problems falling in the clinical and subclinical ranges.

Negative affectivity

Child negative affectivity was measured with the Negative Affectivity subscale of the Children's Behavior Questionnaire (i.e., very short form; Putnam & Rothbart, 2006). This subscale is composed of 12 items rated on a 7-point response scale (1 = *Extremely untrue of your child* to 7 = *Extremely true of your child*), with a N/A option. Internal consistency was good (Cronbach α T1 = 0.75).

Demographics

Parents reported their gender, age, education, and family revenue, as well as their child's sex and age at T1.

Plan of Analyses

We first conducted attrition analyses, examined descriptive statistics, and verified parent implementation of the How-to parenting skills. For our main analyses, we relied on multivariate multilevel modeling with the robust maximum likelihood estimator available in Mplus 7.4 to estimate linear and quadratic trends in parenting and child mental health over the 14-month period, while controlling for child age, sex, and temperament as well as parental age and gender. For these models, repeated dependent variables (level 1 predictors: time [number of months; −2, 0, 6, 12), and time^2) are nested within each parent (level 2 predictors: covariates). Intercepts were estimated at T2 to estimate means and linear trends for dependent variables at the first

Table 2 Correlations among outcome variables

	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
T1																			
1. AS	0.24*	0.36*	−0.15	−0.08	0.74*	0.49*	0.39*	−0.24*	−0.13	0.57*	0.35*	0.32*	0.05	−0.12	0.64*	0.43*	0.31*	−0.09	−0.19
2. Structure	–	0.08	−0.03	−0.01	0.32*	0.59*	0.15	−0.17	−0.12	0.17	0.70*	0.05	0.04	0.02	0.28*	0.64*	0.04	0.01	−0.03
3. Affiliation		–	−0.32*	−0.18	0.40*	0.31*	0.70*	−0.30*	−0.00	0.29*	0.22	0.66*	−0.18	−0.10	0.21	0.33*	0.60*	−0.13	−0.08
4. E Problems			–	0.49*	−0.03	0.01	−0.34*	0.70*	0.28*	0.05	−0.03	−0.15	0.72*	0.44*	0.07	0.06	−0.31*	0.72*	0.49*
5. I Problems				–	−0.02	−0.02	−0.26*	0.25*	0.41*	0.01	−0.02	−0.28*	0.42*	0.53*	−0.04	0.06	−0.41*	0.30*	0.51*
T2																			
6. AS					–	0.50*	0.50*	−0.25*	−0.12	0.57*	0.43*	0.32*	0.10	−0.07	0.61*	0.57*	0.19	−0.00	−0.05
7. Structure						–	0.32*	−0.17	−0.06	0.46*	0.76*	0.34*	0.07	0.02	0.55*	0.76*	0.31*	−0.11	−0.12
8. Affiliation							–	−0.47*	−0.29*	0.43*	0.28*	0.70*	−0.12	−0.07	0.31*	0.31*	0.71*	−0.22	−0.09
9. E Problems								–	0.51*	−0.25	−0.27*	−0.26*	0.73*	0.44*	−0.19	−0.14	−0.35*	0.84*	0.52*
10. I Problems									–	−0.42*	−0.21	−0.29*	0.24	0.44*	−0.29*	−0.10	−0.36*	0.44*	0.54*
T3																			
11. AS										–	0.41*	0.55*	−0.10	−0.18	0.77*	0.42*	0.41*	−0.07	−0.21
12. Structure											–	0.23	0.04	−0.01	0.52*	0.87*	0.14	−0.11	−0.10
13. Affiliation												–	−0.24	−0.16	0.30*	0.32*	0.72*	−0.20	−0.27
14. E Problems													–	0.68*	0.04	0.19	−0.29*	0.72*	0.66*
15. I Problems														–	−0.10	0.17	−0.11	0.25	0.67*
T4																			
16. AS															–	0.50*	0.34*	−0.14	−0.17
17. Structure																–	0.20*	−0.02	0.08
18. Affiliation																	–	−0.38*	−0.32*
19. E Problems																		–	0.60*
20. I Problems																			–

Based on the raw data set

AS Autonomy Support, *E Problems* Externalizing Problems, *I Problems* Externalizing Problems

*$p < 0.05$

post-intervention assessment, controlling for covariates. This also helps reduce multicollinearity among level 1 predictors (time and its quadratic term). All level-2 continuous variables were centred on the grand mean. Two sets of analyses were conducted, one for parenting dimensions and one for child mental health. To facilitate estimation, we modeled linear and quadratic change as random and fixed effects respectively. Intercepts were allowed to covary with their corresponding linear slopes. Multivariate multilevel modeling was chosen because it can include multiple dependent variables as well as data from all participants even when some assessments are missing. Missing values at level 2 (<3.2%) were estimated using the expectation-maximization procedure with multiple imputations, averaged across samples. Effect sizes (f^2) were calculated based on procedures fully described in Lorah (2018), which can be interpreted as proportions of dependent variable variability explained by each effect, not including the covariates. Values of 0.02, 0.15, and 0.35 are considered small, medium, and large, respectively (Cohen, 1992).

As exploratory analyses, we tested the moderating effect of the same five covariates on trends in parenting and child mental health. To do so, we regressed the linear trends of parenting and child mental health from our initial models on the level-2 moderators one at a time, thereby yielding five separate exploratory models per set of outcomes. Finally, using path analyses in AMOS 25.0, we tested whether changes in authoritative parenting from T1 to T3 (estimated from standardized residuals obtained by regressing authoritative parenting scores at T3 on their baseline scores at T1) could predict child mental health at T4 while controlling for child mental health baseline scores and the same covariates. We estimated changes in authoritative parenting from T1 to T3 to ensure that parents had sufficient opportunities to implement all How-to parenting skills, including those from the later sessions. Before conducting this analysis, we also verified that improvements in authoritative parenting were associated with increases in How-to parenting skill implementation over that same period (estimated with the same procedure), which would indicate that such improvements could be program-related. Missing data for this analysis were handled with Full Information Maximum Likelihood. In addition, the proposed model being a saturated model, the fit of the model was not the focus of the analysis (i.e., model fits of saturated models are necessarily perfect).

Results

Attrition Analysis

Out of the 93 participating parents, 85 completed questionnaires at T2, 59 at T3, and 53 at T4 (attrition rates of 8.6%, 36,6%, and 43,0%, respectively). *T*-tests and χ^2 tests were performed to determine whether parents with and without missing data at different assessments differed on demographic or outcome variables, measured at T1. Compared to parents who completed the T2 questionnaire, those who did not reported using fewer (selected) How-to skills at baseline, $t(89) = 2.01$, $p = 0.048$. They did not differ from T2 completers on any other variables. At T3, parents who did not complete the questionnaire were younger, $t(91) = 2.54$, $p = 0.013$, less educated, $t(61{,}98) = 2.55$, $p = 0.013$, and reported a lower family income, $t(89) = 4.43$, $p < 0.001$, than those who responded. At T4, only lower family income, $t(89) = 2.14$, $p = 0.035$, differentiated parents who did not complete the T4 questionnaire from those who did. All participants were included in the analyses, regardless of attrition, content coverage or exposure.

Descriptive Statistics

Table 1 and Fig. 1 report the unadjusted group means for all variables at each assessment time. At baseline, parents' scores on each parenting dimension were generally above the midpoint on the response scales, indicating that on average, parents provided moderate to high affiliation, structure, and autonomy support. Yet, almost half of parents reported using our selection of How-to parenting skills less often than more typical practices (46.2% scoring below the midpoint on the How-to Parenting Skills Implementation Scale). Regarding children's mental health, we compared parental ratings with established norms of child E- and I-problems falling in the clinical/sub-clinical ranges, considering child age and gender (Achenbach & Rescorla, 2001). Five-year-olds ($n = 16$) are not included in these proportions because norms are not available for this age group. More than a third of the targeted children were rated as displaying E- (33.8%) or I-problems (35.1%) falling in the clinical or subclinical ranges at T1. After missing data were imputed (for these analyses only), these proportions decreased to 20.8% and 11.7% at T2, 18.2% and 22.1% at T3, and 16.9% and 24.7% at T4 for E- and I problems respectively. Each of these proportions differed significantly from their respective baseline (all χ^2s > 7.73, $p \leq 0.017$), with the exception of I-problems at T4, $\chi^2(1) = 3.67$, $p = 0.055$. Correlations among variables are presented in Table 2.

Implementation of How-to Parenting Skills

Using multivariate multilevel modeling, we first estimated linear and quadratic trends in parent reports of their implementation of the selected How-to parenting skills across the 14 months, controlling for the covariates (child age, sex, and temperament as well as parental age and

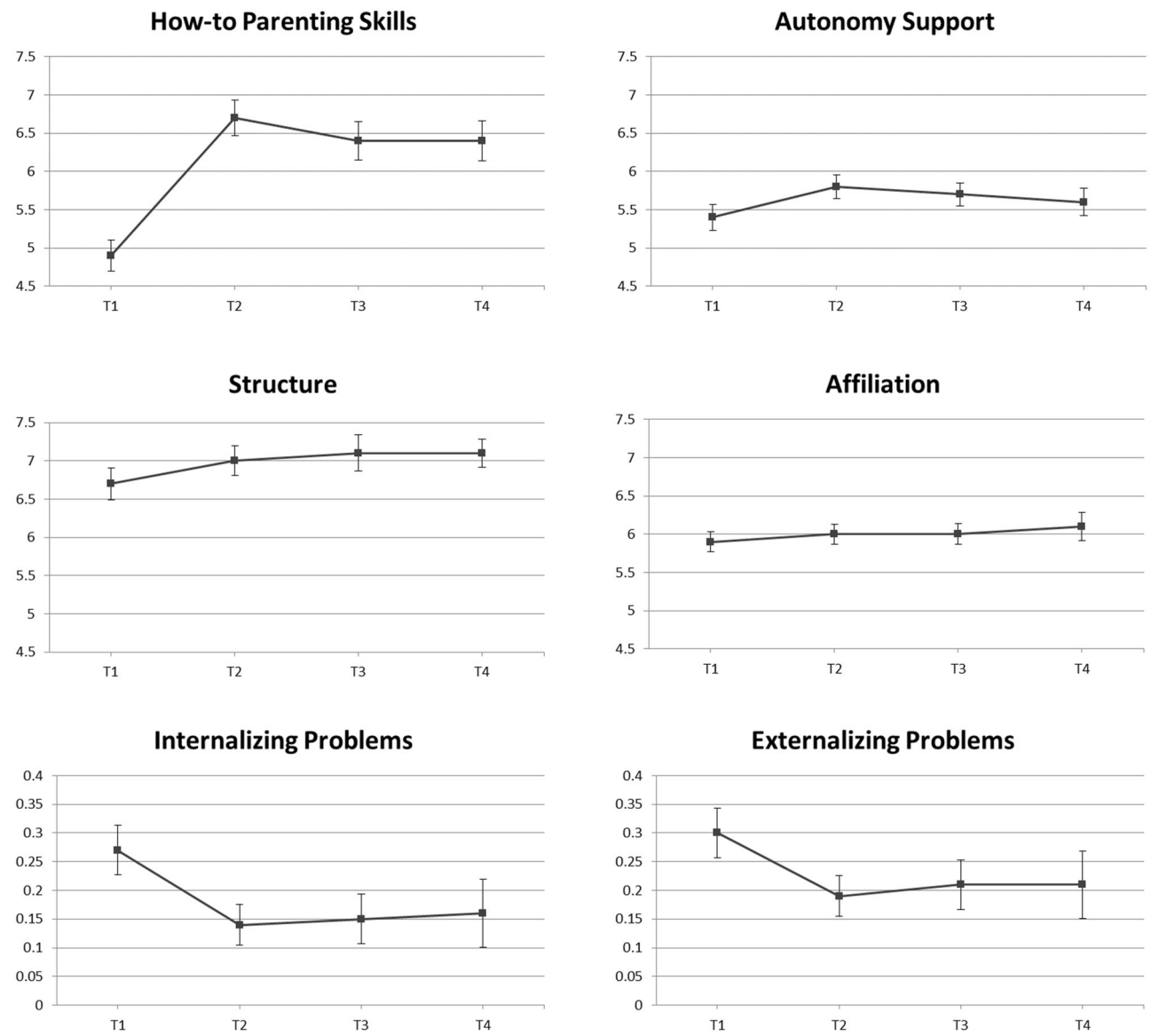

Fig. 1 Change in parent and child outcomes across assessment times

gender). Results revealed a significant linear, $B = 0.263$, $p < 0.001$, and quadratic trend, $B = -0.021$, $p < 0.001$, suggesting that parents reported an increase in their use of How-to parenting skills from T1 to T3, which then stabilized (or decreased) over the following 6 months. These results suggest that long-term skill implementation occurred, with overall increases estimated at 0.221 point per month, on a 9-point scale. Change over time explained a moderate portion of How-to parenting skill implementation, $f^2 = 0.271$.

As exploratory analyses, we also tested the moderating effect of each of our covariates, one at a time, on the linear trend of How-to parenting skill implementation. No moderation was observed.

Main Results

Linear and quadratic changes in parenting

For our main analyses, we estimated the linear and quadratic trends in parent reports of the three parenting dimensions across the 14-month period using multivariate multilevel modeling, controlling for the covariates (child age, sex, and temperament as well as parental age and gender). Results showed that both the linear and quadratic trends were significant for autonomy support ($B_{\text{linear}} = 0.064$, $p < 0.001$; $B_{\text{quadratic}} = -0.006$, $p < 0.001$) and structure ($B_{\text{linear}} = 0.059$, $p < 0.001$; $B_{\text{quadratic}} = -0.004$, $p = 0.003$), suggesting that these two parenting dimensions increased from T1 to T3,

Table 3 Linear and quadratic change in parenting dimensions across assessment times

		Autonomy Support		Structure		Affiliation	
	Par	*B*	*SE*	*B*	*SE*	*B*	*SE*
Rate of change (estimated per month at T2)							
Linear change	γ_{10}	0.064***	0.014	0.059***	0.017	0.030**	0.010
Quadratic change	γ_{20}	−0.006***	0.001	−0.004**	0.001	−0.001	0.001
Intercept (estimated at T2)	γ_{00}	5.784***	0.094	6.962***	0.145	6.072***	0.074
Child age	γ_{01}	−0.076*	0.031	−0.115*	0.046	−0.085**	0.030
Child sex	γ_{02}	−0.069	0.116	0.072	0.186	−0.041	0.109
Temperament	γ_{03}	−0.144	0.078	−0.022	0.092	−0.143*	0.058
Parent age	γ_{04}	0.025*	0.010	0.006	0.016	0.011	0.010
Parent gender	γ_{05}	−0.528**	0.159	−0.447	0.228	−0.415**	0.146
Within-person variance (residual)	σ^2_E	0.177***	0.026	0.286***	0.032	0.106***	0.016
Variance in status at T2	σ^2_0	0.299***	0.051	0.597***	0.106	0.196***	0.037
Variance in linear rate of change	σ^2_1	0.000	0.000	0.000	0.001	0.001	0.001
Linear slope intercept covariance	σ_{01}	−0.005	0.003	−0.005	0.007	−0.001	0.002

Level-1 predictors are (assessment) time, coded as −2, 0, 6, 12 months, and time^2; All level-2 predictors are centered on the grand mean; All intercepts were modeled to covary with their respective slopes; Par = parameter; *B* = Unstandardized coefficients; SE = Standard error; Child Sex: 0 = girl, 1 = boy; Parent Gender: 0 = mother, 1 = father; *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

then stabilized (or decreased) over the following 6 months (see Table 3). The fact that the linear trends were significant suggests lasting gains in each of these two parenting dimensions over several months, with overall increases estimated at 0.064 autonomy support point per month (on a 7-point scale) and 0.059 structure point per month (on a 9-point scale). In contrast, affiliation was found to keep increasing over time, following a linear pattern, $B = 0.030$, $p = 0.004$. The quadratic trend was not significant, $B = -0.001$, $p = 0.130$. Change over time explained a small portion of the within-person variability of the autonomy support, $f^2 = 0.015$, structure, $f^2 = 0.014$, and affiliation dimension, $f^2 = 0.040$.

Linear and quadratic changes in child mental health

The analysis of change in parent reports of child mental health revealed linear and quadratic trends for both E- ($B_{linear} = -0.014$, $p = 0.001$; $B_{quadratic} = 0.001$, $p = 0.001$) and I-problems ($B_{linear} = -0.018$, $p < 0.001$; $B_{quadratic} = 0.001$, $p < 0.001$), suggesting that both types of problems decreased from T1 to T3, before stabilizing (or increasing) over the following six months (see Table 4). The significant linear trends further suggested that improvements in child mental health were maintained over several months, with overall decreases estimated at −0.014 E-point and −0.018 I-point per month on the 3-point scale. Effect sizes suggest that change over time explained a small to moderate portion of the within-person variability of E-problems, $f^2 = 0.10$, but a negligible amount of I-problems, $f^2 < 0.010$.

Secondary Results

Exploring potential moderators of change in parenting and child mental health

As exploratory analyses, we tested the moderating effect of each of our covariates, one at a time, on the linear trends of the parenting dimensions. Improvements in autonomy support were larger for mothers, $B = -0.045$, $p = 0.002$, $f^2 = 0.033$, and for parents of older children, $B = 0.005$, $p = 0.035$, $f^2 = 0.028$. However, improvements in structure seemed greater among parents of younger children, $B = -0.012$, $p = 0.001$, $f^2 = 0.015$. No other moderation was observed with parental age, gender or child age, sex or temperament.

We then explored the moderating effect of each of our covariates, one at a time, on the linear trends of child E- and I-problems. No moderation was observed.

Exploring the association between change in authoritative parenting and child mental health

Finally, we tested if improvements in authoritative parenting from T1 to T3 were associated with improvements in child mental health from T1 to T4. To do so, we first estimated change in authoritative parenting by regressing scores on authoritative parenting at T3 on their baseline levels using regression analyses and saving the standardized residuals. Higher residuals represent greater improvements from T1 to T3 as they indicate that scores on authoritative parenting reported by parents at T3 were higher than what could be expected from their baseline reports on these same

Table 4 Linear and quadratic change in child mental health problems across assessment times

		Externalizing Problems		Internalizing Problems	
	Par	*B*	*SE*	*B*	*SE*
Rate of change (estimated per month at T2)					
Linear change	γ_{10}	−0.014***	0.003	−0.018***	0.004
Quadratic change	γ_{20}	0.001**	0.000	0.001***	0.000
Intercept (estimated at T2)	γ_{00}	0.188***	0.023	0.182***	0.021
Child age	γ_{01}	−0.002	0.010	−0.001	0.007
Child sex	γ_{02}	0.075*	0.034	0.002	0.027
Temperament	γ_{03}	0.080***	0.017	0.064***	0.017
Parent age	γ_{04}	−0.001	0.003	0.001	0.003
Parent gender	γ_{05}	0.038	0.040	0.055	0.038
Within-person variance (residual)	σ^2_E	0.011***	0.002	0.014***	0.003
Variance in status at T2	σ^2_0	0.019***	0.004	0.011***	0.003
Variance in linear rate of change	σ^2_1	0.000	0.000	0.000	0.000
Linear slope intercept covariance	σ_{01}	0.000	0.000	0.000	0.000

Level-1 predictors are (assessment) time, coded as −2, 0, 6, 12 months, and time^2; All level-2 predictors are centered on the grand mean; All intercepts were modeled to covary with their respective linear slope; quadratic rates of change are fixed effects; Par = parameter; *B* = Unstandardized coefficients; SE = Standard error; Child Sex: 0 = girl, 1 = boy; Parent Gender: 0 = mother, 1 = father; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

measures. To verify that improvements in authoritative parenting could be program-related, we examined their association with changes in How-to parenting skill implementation during that same period (estimated with the same procedure). We found a moderate to strong association between improvements in authoritative parenting and increases in the implementation of the (selected) How-to parenting skills, $\beta = 0.35$, $p = 0.001$, controlling for child age, sex, and temperament as well as parental age and gender. We thus proceeded with our analysis.

Using path analyses, we tested whether improvements in authoritative parenting from T1 to T3 could predict child E- and I-problems at T4, while controlling for baseline assessments of these same child problems and the same covariates. Results showed that authoritativeness improvements were associated with greater decreases in E-problems, $\beta = -0.204$, $p = 0.032$, but they were not significantly linked with changes in I-problems, $\beta = -0.188$, $p = 0.110$. Thus, the more parents reported improvements in authoritative parenting at T3 compared to what could be expected from their baseline measures, the less severe they rated their children's E-problems at T4 compared to what could be expected from their initial ratings.

Discussion

Our results first suggest that parents reported improvements in autonomy support, structure, and affiliation over time, although these effects were small in magnitude. Significant quadratic trends for autonomy support and structure further suggest that for these two parenting dimensions, improvements generally occurred before the six-month follow-up and then stabilized (or decreased) from the six-month to the one-year follow-up. For affiliation, only the linear trend was significant, which suggests that affiliation continued to increase at a regular rate throughout assessments. This continued increase in affiliation may be due to the fact that when parents engage in warm interactions with their children, they too experience the benefits of having their need for relatedness met (Ryan & Deci, 2017). This relatedness reciprocity could create an upward spiral of positive emotions (Fredrickson, 2001), making the provision of further affiliation increasingly effortless and rewarding for parents.

Overall, these findings suggest that parents perceived improvements in their provision of structure, autonomy support, and affiliation and that they continued to report these positive parenting behaviors several months after program delivery. The fact that positive changes were observed in autonomy support, in addition to structure and affiliation, is particularly important for the parenting literature as no other parenting program has been shown to be effective in increasing all three key components of authoritative parenting. Rather, other parenting interventions have either emphasized affiliation and autonomy support (e.g., Bernard et al., 2012; Havighurst et al., 2013) or affiliation and structure (e.g., Taylor & Biglan, 1998), while neglecting the third parenting dimension. Yet, past research has pointed to the importance of all

three parenting dimensions for nurturing child development (Aunola & Nurmi, 2005; Barber & Olsen, 1997; Gray & Steinberg, 1999; Schaefer, 1965) and each of these parenting dimensions is independently linked to many child outcomes (e.g., Gray & Steinberg, 1999; Mageau et al., 2015). A meta-analysis also shows that the value of parenting interventions depends in part on the specific parenting skills that they promote and the most beneficial ones pertain to affiliation (e.g., positive interactions), structure (e.g., consistent responding/enforcement of rules), and autonomy support (e.g., empathic communication; Kaminski et al., 2008). If, as our findings suggest, the How-to Program can improve all three parenting dimensions, it may thus constitute a more comprehensive program than other interventions.

Child Mental Health

Following their participation in the How-to Program, parents also observed improvements in child E-problems that mirrored the pattern of change in parenting. E-problems decreased over time and then stabilized throughout follow-ups. These improvements were small to moderate and still observed months after program delivery. For I-problems, differences over time did not explain additional variance above and beyond what could be accounted for by the covariates. I-problems were rather positively associated with child negative affectivity (see Table 4).

Yet, examining proportions of children classified in the clinical/subclinical ranges at each assessment suggests some gains in child mental health: while the score of approximately one out of three children fell in the clinical/subclinical range at pretest for both E- (33.8%) and I- (35.1%) problems, the score of only one out of five children (16.9%) and one out of four children (24.7%) fell in those ranges for E- and I-problems respectively a year after the parenting program. Moreover, positive changes in parenting dimensions were linked to improvements in child E-problems but not I-problems. This suggests that the How-to Program may be useful in reducing child E-problems through its positive impact on parenting quality, but its impact on I-problems may not be systematic.

The different results for E- and I- problems may be due to the fact that compared to E-problems, I-problems are more difficult to observe by parents (van de Looij-Jansen et al., 2011). Children may thus have experienced changes in their I-symptoms but these may have gone largely unnoticed. It is also possible that the effect size for I-problems was smaller not because there was no reduction but because children were encouraged to voice their I-difficulties to a greater extent after their parent's participation in the program. One of the cornerstones of the How-to Program is indeed teaching empathy; parents learn how to listen and respond to all children's emotions in a more caring and accepting way. Such a shift in parental response could have encouraged children to be more open about their inner experiences, making I-problems more noticeable to parents. Finally, the passage of time may have influenced E- and I-problems differently over time. Past research suggests that while E-problems tend to decrease across the elementary school years, I-problems tend to increase (Sirois et al., 2021). Although such trends were observed over more than a single year, the passage of time may have increased the odds of reporting positive changes in E-problems, while reducing potential benefits related to I-problems. A randomized controlled trial on the How-to Program is now required to test its impact, controlling for the passage of time.

The fact that positive changes in parenting dimensions were associated with improvements in child E-problems is coherent with past research showing positive relations between each component of authoritative parenting and numerous indicators of child mental health (e.g., Aunola & Nurmi, 2005; Farkas & Grolnick, 2010; Vasquez et al., 2016). Improvements in affiliation, structure, and autonomy support in turn are proposed to foster children's mental health through their direct impact on fundamental needs for relatedness, competence, and autonomy (Ryan & Deci, 2017). Past studies also reveal positive links between some of the parenting skills included in the How-to Program and positive child outcomes. For example, acknowledging feelings (Koestner et al., 1984), offering choices (e.g., Cordova & Lepper, 1996), providing information (Zahn-Waxler et al., 1979), labelling emotions (Denham et al., 1995), providing meaningful rationales (Koestner et al., 1984), giving informational feedback (Carpentier & Mageau, 2016), and following through with logical consequences (Mageau et al., 2018) have all been found to be associated with positive child perceptions or behaviors. Many of these relations were observed using experimental designs (Cordova & Lepper, 1996; Koestner et al., 1984; Mageau et al., 2018), which suggests that the set of skills presented in the How-to Program has the potential to improve child mental health.

Moderators

Our exploration of potential moderators of the efficacy of the How-to Program suggests that all families are likely to benefit equally from participating in it, as we found no moderating effect for child mental health and just a few for parenting. Greater benefits in terms of autonomy support were reported when mothers and parents of older children were participants whereas greater structure improvements were found among parents of younger children. These findings are coherent with past research suggesting that

mothers can be perceived as (slightly) more autonomy-supportive than fathers (Mageau et al., 2015) and that being autonomy-supportive could be more intuitive with children displaying more self-regulatory capacities (Andreadakis et al., 2019). In contrast, parents with younger children seemed to have learned more structuring skills, which may have been more useful with younger children. The few observed moderations, paired with the fact that the How-to Program targets fundamental parenting dimensions, suggest that this program shows promise as a universal parenting intervention. However, investigating potential moderators is warranted as some interaction effects were detected in our sample despite its small size.

Strengths

Taken together, the present findings are encouraging and suggest that the How-to Program may be effective in improving key parenting dimensions and child mental health, as reported by parents. Although the absence of a control group makes the present results preliminary, using an intent-to-treat approach and long-term follow-ups constitute a relatively stringent test of the efficacy of this program; all participants were included in the analyses, regardless of content coverage, participants' actual exposure and characteristics, or attrition. By adhering to the intent-to-treat approach, we increased the likelihood that the present results reflect what could be expected if the How-to Program was implemented as a universal intervention in elementary schools. The fact that observed changes following delivery were still observed several months later is also noteworthy, as very few studies have investigated the long-term effects of parenting programs (Kaminski et al., 2008). Given that in general, parenting programs' benefits are reduced at follow-up compared to post-test (Lundahl et al., 2006), research investigating long-term effects of parenting programs is direly needed.

The How-to Program's potential long-term benefits are particularly promising given that this program presents many features facilitating accessibility (e.g., group intervention, manual-based, skill-focused, collaborative approach, culturally sensitive). Moreover, the high attendance documented in our study suggests that this program's content is interesting and satisfying for participating parents. Given that many families experiencing child-rearing challenges tend not to seek help or drop out of treatment (Spoth et al., 1996), it is crucial to promote programs that are delivered in cost-effective and appealing formats and that offer tangible skills to address child-rearing concerns.

Limitations

The present results should nevertheless be interpreted in light of the following methodological limitations. First, this pilot study did not include a control group, which prevented us from controlling for the potential impacts of the passage of time and other confounding variables. Although the pattern of mean differences suggests that changes occurred during parents' participation in the program and stabilized afterwards, these changes could have been due to the simple fact of consenting to participating in a study and filling out questionnaires. For example, all parents may have been motivated to improve the quality of their parenting after registering in the study. Reading the questionnaires could also have increased their awareness about whether they engaged in various parenting behaviors.

Another limitation concerns the use of parent reports. Parents could have been motivated to overestimate the quality of their parenting and underestimate child problems at follow-ups, presumably to justify their investments in this study. Yet, given that people tend to use past schemas to interpret new situations, it is also possible that some parents ignored actual changes in their children's behaviors following their participation to the program. Similarly, reported changes could also be due in part to some parental biases that occurred at baseline. While some parents could have been motivated to portray themselves in a positive light, others could have exaggerated their children's problems to justify their program participation even though there were no such inclusion criteria. A RCT with a wait-list control group and observational assessments of parent and child behaviors would help address these limitations.

Our assessment of skills implementation was also limited by the fact that only some of the program's skills could be evaluated at baseline—the ones that did not require elaborate explanations to be meaningful. Moreover, parents may have responded differently to the How-to parenting skills implementation items after attending the program compared to baseline solely due to desirability biases. Although parents were asked to rate the extent to which they used the program's skills with their own children at each assessment, their post-intervention ratings of their actual skill implementation may have been influenced by their recognition of the program's skills.

Other limitations concern our findings' generalizability. Although fathers were included in the present study, mothers' data were retained when mothers and fathers attended the program together. It would have been preferable to choose the participating parent by using a random table of numbers. Also, parents with more than one child attending elementary school were asked to assess the child they were thinking of when registering for the program. Yet, it would have been preferable to impose the target child to limit selection biases. The relative homogeneity of the sample also limits generalizability. The sample was predominantly from a single cultural group, was well-educated, and seemed already invested in their children's development (as indicated by

moderate to high scores on the parenting dimensions at baseline). Other groups of families might, for various reasons, react differently to the program. Although we observed some variability in child functioning at the pretest, the next step would be to assess the How-to Program's efficacy for families with parents who are less privileged.

As a final limitation, this study only investigated children's E- and I-symptoms, thereby neglecting positive indicators of mental health. This limitation may be particularly important given that most research on parenting interventions focused on reducing E- and I-problems and that parenting programs' effect sizes are typically smaller when positive indicators of mental health are used (Kaminski et al., 2008). Future research should include both positive and negative indicators of children's mental health to assess the impact of parenting programs in a more comprehensive way.

In conclusion, it can be challenging to require children to adopt socially desirable behaviors (structure), without thwarting their autonomy (AS) and while preserving a positive parent-child relationship (affiliation). While parenting programs constitute an effective way to strengthen parenting and child mental health (Kaminski et al., 2008), most programs have focused on two out of three parenting dimensions, with most placing limited emphasis on positive behaviors of autonomy support. Given their importance for child mental health (Joussemet et al., 2008; Vasquez et al., 2016), it seems crucial that autonomy-supportive behaviors, along with affiliation and structure, be an integral part of parenting programs. Although research on the How-to Parenting Program is still embryonic, this study suggests that this parenting program could constitute a promising avenue for helping parents provide autonomy support, structure, and affiliation.

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Compliance with Ethical Standards

Conflict of Interest The authors declare no competing interests.

Ethical Approval All procedures were approved by the first's author research ethics committee and are in accordance with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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