

## How-to parenting program: A randomized controlled trial evaluating its impact on parenting

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### ABSTRACT

“How to Talk so Kids will Listen & Listen so Kids will Talk” is a universal parenting program hypothesized to teach three key parenting components: autonomy support, affiliation, and structure. To assess its impact on these components, we conducted its first randomized controlled trial. We recruited 293 parent-child dyads, which we randomized into 30 parenting groups. Fifteen groups received the program immediately (How-to condition), while the other half received it 14 months later (waitlist condition). Parents and their child ( $M_{age} = 7.60$ ) rated parent autonomy support, affiliation and structure at pre- and post-intervention as well as at six- and twelve-month follow-ups. At post-intervention, parents in the How-to condition reported more autonomy support than parents in the waitlist condition and, for those scoring low on affiliation or structure at pre-intervention, more affiliation and (potentially) structure, respectively. Limited differences were reported by children. Post-intervention differences remained stable over the 12-month follow up.

Parenting programs are a form of intervention designed to help parents improve on their parenting so that they may in turn better foster children's development. To determine whether parenting programs can successfully reach such goal, it is crucial to document their impact. *How to Talk so Kids will Listen & Listen so Kids will Talk* is a parenting program teaching communication skills that are theorized to promote effective parenting. Through seven sessions, parents participate in activities aimed to facilitate their learning and usage of positive parenting strategies. Though highly popular, this program has not been tested properly, thereby leaving its impact on parenting poorly documented. The current study addresses this gap by evaluating its impact on key parenting components using a randomized control trial.

### Key parenting components: affiliation, structure, and autonomy support

As primary caregivers, parents play a predominant role in child development and wellbeing (Masten & Shaffer, 2006). Indeed, through the quality of their interactions with their children, parents may foster or rather hinder child adjustment (e.g., Pinquart, 2017). Research has unraveled key positive parenting components that foster child

development and mental health, including parental affiliation, structure and autonomy support (Aunola & Nurmi, 2005; Gray & Steinberg, 1999; Grolnick & Ryan, 1989).

Affiliation refers to a caring interpersonal involvement (Schaefer, 1965). Also called acceptance, nurturance and warmth, this component stands in contrast to parental coldness and hostility. Structure refers to parental provision of consistent rules, expectations and consequences (Grolnick & Pomerantz, 2009). This component, also called behavioral control, regulation or limit-setting, is considered to be the opposite of permissiveness. Finally, autonomy support refers to parental consideration for child internal frame of reference and volitional functioning (Grolnick & Ryan, 1989; Joussemet, Landry, & Koestner, 2008; Koestner, Ryan, Bernieri, & Holt, 1984; Mageau et al., 2015). Parents support child autonomy through behaviors that are (1) empathic (e.g., acknowledging children's perspective), (2) informational (e.g., providing rationales for limits and demands) and (3) supportive of child active participation in decision-making and problem-solving (e.g., providing choices). Sometimes called autonomy granting or psychological autonomy, parental autonomy support is contrasted with autonomy-thwarting (also referred to as controlling parenting or psychological control). Parents are autonomy-thwarting when they overtly

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(e.g., through threats) or covertly (e.g., through shaming) pressure their children to think, feel or behave in specific ways (Soenens & Vansteenkiste, 2010). Each of these three parenting components (i.e., affiliation, structure, autonomy support) is uniquely associated with better child mental health and adjustment (Aunola & Nurmi, 2005; Gray & Steinberg, 1999) whereas their opposites (i.e., hostility, chaos, autonomy-thwarting) are consistently linked with child mental health problems and maladjustment (Barber, Stolz, & Olsen, 2005; Valiente, Lemery-Chalfant, & Reiser, 2007; Weiss, Dodge, Bates, & Pettit, 1992).

Theoretical models of human development and optimal functioning offer some explanations for the positive effects of parental affiliation, structure and autonomy support on healthy child development. According to Self-Determination Theory, these three parenting components are beneficial to child development because they nurture the fundamental psychological needs for relatedness, competence and autonomy (Grolnick & Ryan, 1989; Ryan & Deci, 2017). These psychological needs are considered fundamental because they represent “psychological nutrients that are essential for individuals’ adjustment, integrity, and growth” (Ryan, 1995). In line with this statement, results from a meta-analysis indicate that the parenting program components that predict positive child outcomes most strongly are parental positive interactions, consistent responding and emotional/empathic communication (Kaminski, Valle, Filene, & Boyle, 2008), which are respectively akin to parental affiliation, structure and autonomy support. As such, affiliation, structure and autonomy support should be an integral part of intervention programs aiming to improve parenting.

Access to comprehensive parenting programs is particularly important given that the provision of all three mentioned key positive parental components is not instinctive. Rather, it is quite challenging for parents to (1) require children to adopt socially desirable behaviors (structure) while (2) preserving a positive caring parent-child relationship (affiliation) and (3) promoting child volition (autonomy support). For instance, a large body of research convincingly shows that contextual and situational stressors tend to hinder parental capacities to behave in accordance with key positive parenting components (e.g., Bornstein, 2016; Grolnick, 2003; Robichaud, Roy, Ranger, & Mageau, 2020). Coherently, diary studies examining day-to-day parenting suggest that over 50% of the variability in parent provision of key positive parenting components resides between days (Mabbe, Soenens, Vansteenkiste, van der Kaap-Deeder, & Mouratidis, 2018). Such studies underlie the need for parents to develop concrete skills that may allow them to provide affiliation, structure and autonomy support while meeting the daily challenges of living with children.

### How-to parenting program

One popular parenting program hypothesized to teach such concrete skills (Joussemet, Mageau, & Koestner, 2014), but that has yet to be thoroughly empirically examined, is the program *How to Talk so Kids will Listen & Listen so Kids will Talk* (referred to as the How-to Parenting Program herein). Developed by Faber and Mazlish (1980, 2010), this group program teaches communication skills likely to improve all three mentioned key parenting components. This program may be considered universal because it focuses on key parenting components that are relevant for, and thus may be offered to, all parents (rather than only to parents who experience specific challenges with their children; Compton & Shim, 2020). Its content is based on the parental education philosophy of Haim Ginott (1965), a founder of the communicative approach to parenting programs whose writings about empathic limit-setting inspired the operationalization of autonomy support within high structure and affiliation situations (Joussemet et al., 2008; Koestner et al., 1984).

The How-to Parenting Program is hypothesized to promote affiliation by helping parents listen and respond to their children in a way that helps them feel loved and accepted for who they are. Parents also learn how to communicate expectations, give feedback, follow through with

logical consequences (e.g., make amends) and use problem solving, thereby offering clear structure. Finally, the program has the distinctive feature of helping parents provide affiliation and structure in ways that are consistent with the three main features of autonomy support (Grolnick & Ryan, 1989; Joussemet et al., 2008; Koestner et al., 1984; Mageau et al., 2015). Indeed, it helps parents communicate in ways that are more (1) considerate of child perspective (e.g., when children feel distressed, listen with full attention and acknowledge their feelings), (2) informational rather than evaluative (e.g., when children do not cooperate, describe the problem and express own feelings without attacking child character) and (3) supportive of child active participation in decision-making and problem solving (e.g., encourage self-initiation; when children misbehave, show and give choices on how to make amends). Thus, unlike most parenting programs based on behavior modification strategies (e.g., time-out, planned ignoring) but that do not include autonomy support (Baker, Brassard, Schneiderman, Donnelly, & Bahl, 2011), this program addresses all three parenting components shown to promote child development and mental health.

Another valuable feature of the How-to Parenting Program is its accessibility. Contrary to many evidence-based parenting programs, no formal certification to teach the program is required by the copyright owners. Rather, the owners developed and made accessible a low-cost, easy-to-use, well-structured and manualized material (Faber & Mazlish, 2010). Training facilitators is thus simple and affordable, which is crucial to facilitate outreach. In addition to being accessible, the How-to Parenting Program is highly pedagogical. Specifically, through learning exercises (e.g., role-playing) and practice, this program teaches 30 concrete, specific, easy-to-grasp and readily applicable skills. It is also culturally sensitive as it focuses on *how* expectations, rules and values may be best communicated, rather than on *which* expectations, rules and values ought to be (Sanders, 2001; Spoth, Kavanagh, & Dishion, 2002).

Despite its positive features and notable popularity (the book version is a bestseller translated in more than 30 languages), only three studies evaluated its impact to this day. In a first study, Fetsch and Gebeke (1995) showed that participation in the program was associated with higher parental self-esteem and coping. In a second and third study with 93 parents of school-aged children, Joussemet et al. (2014) found that parent and child reports of parental structure, affiliation and autonomy support increased from pre- to post-intervention, while Mageau, Joussemet, Paquin, Grenier, and Koestner (2021) found such effects to stabilize across 6- and 12-month follow ups. Although these studies provide preliminary evidence in favor of the program, a randomized controlled trial (RCT) remained necessary to better isolate and assess the impact of the How-to Parenting Program on parenting. Indeed, RCTs are considered the gold standard to examine the efficacy of interventions, notably because randomized assignments of participants in intervention and control conditions enhance the likelihood that both known and unknown confounding factors are similarly distributed among the studied conditions. Observed differences between conditions can thus be attributed to interventions with greater confidence. To further increase the (external) validity of the findings, it is also recommended to use an intent-to-treat analytic procedure, where all parents randomized to the experimental conditions are retained for analyses regardless of program attendance or attrition (Newell, 1992).

### Objectives

We thus conducted a RCT with a waitlist control condition and used an intent-to-treat analytic procedure to test whether the How-to Parenting Program (French version) could increase the three mentioned key parenting components (i.e., affiliation, structure and autonomy support), according to participating parents and their children. To do so, we examined each parenting component at pre- and post-intervention, and at six- and twelve-month follow ups. We hypothesized that parents in the How-to condition would show greater improvements on each component at post-intervention than parents in the waitlist

condition. Based on Mageau et al. (2021)'s pilot study, we also expected that all observed post-intervention differences would be maintained over time.

As secondary objectives, we explored whether child age, child sex, parent gender and pre-intervention levels of each parenting component would moderate the impact of the How-to Parenting Program. Given that this is the first RCT of the How-to Parenting Program, our hypotheses regarding these potential moderators were tentative. First, we anticipated that parents who experienced more difficulties providing affiliation, structure or autonomy support at pre-intervention (i.e., who scored a standard deviation below average on a given parenting component) would benefit more from the program than those experiencing fewer difficulties at pre-intervention, presumably because they would be less familiar with its skills. Second, based on meta-analytic reviews of other parenting programs using a universal approach, we did not expect child age nor child sex to moderate the program's efficacy (e.g., de Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008), but hypothesized that any parent gender difference would result in larger positive changes for mothers than fathers (e.g., Fletcher, Freeman, & Matthey, 2011; Sanders, Kirby, Tellegen, & Day, 2014), arguably because mothers are more likely to be primary caregivers (Galinsky, Aumann, & Bond, 2013; Milan, Keown, & Urquijo, 2011). To describe our Method and Results sections, we follow the CONSORT standard guidelines for social and psychological interventions (Montgomery et al., 2018).

## Method

### Study design

This RCT took place in elementary schools of Montreal, Canada, from 2013 to 2018. We recruited participants over three waves (see Fig. 1 for flow chart) in 4 to 6 schools per year. Adopting a universal approach, parents' only inclusion criteria were (1) having a child attending the recruited elementary school and (2) being able to attend the program, which was delivered and evaluated in French. After obtaining the approval of two school boards, we contacted school principals by phone and email and met with interested principals in person to plan recruitment as well as program implementation and evaluation. In each participating school, we first sent information flyers presenting our project of evaluating a parenting program to all parents (via children's schoolbag). Parents could manifest their interest in the program by returning the flyer to their school. Next, we held an information session in each school with a sufficiently large number of interested parents to explain the study protocol in detail. At the end of their session, parents interested in participating in the research project completed a paper-pencil consent form as well as their pre-intervention assessment of the studied outcomes (T1).

To increase the validity of child reports, only children of 8 years and older were invited to fill out questionnaires (Harter, 1985). Consequently, parents who had more than one child attending the participating elementary school were guided to identify their "targeted" child to maximize child report data. Specifically, they were asked to target their child who was at least 8 years old or, if parents had more than one child over 8 years of age or no child older than 8 years of age, their child

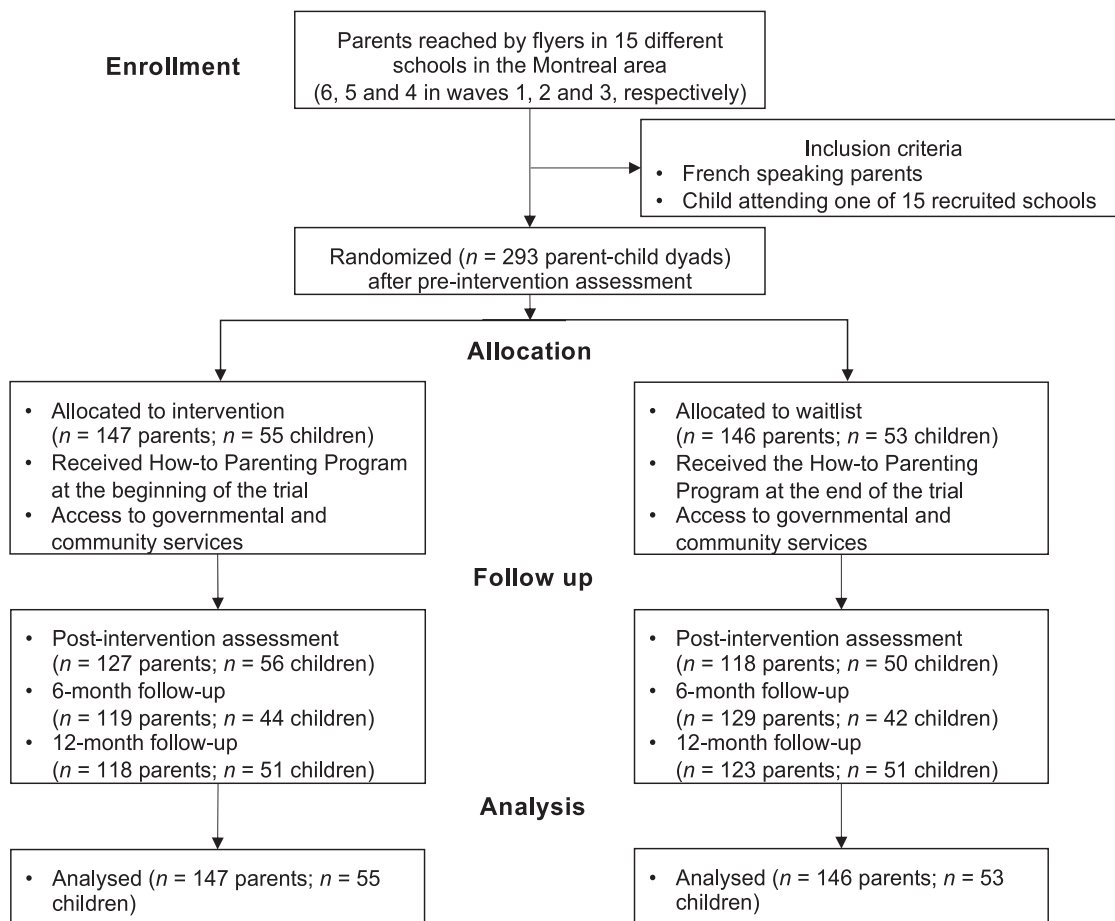


Fig. 1. CONSORT 2010 flow diagram.

**Table 1**  
Skills taught in the how-to parenting program.

Session	Chapter title	Parenting component mainly addressed	Skills	Examples
Session 1/Chapter 1	Helping children deal with their feelings	Affiliation Autonomy support	<ul style="list-style-type: none"> <li>- Listen to him/her with full attention;</li> <li>- Acknowledge with a word, and/or a sound;</li> <li>- Name the child's feelings;</li> <li>- Give him/her what s/he desires in fantasy.</li> </ul>	<p>Look at the child when s/he speaks. "Oh..."; "Hmm..." "That can feel scary" "I wish I could make a snack appear for you right now"</p>
Session 2/Chapter 2	Engaging cooperation	Structure Autonomy support	<ul style="list-style-type: none"> <li>- Describe what the problem is;</li> <li>- Provide some more information;</li> <li>- Remind the child with just one word;</li> <li>- Express your own feelings without attacking the child's character;</li> <li>- Write a note.</li> </ul>	<p>"There are boots in the middle of the hallway" "It's hard to walk when boots are blocking the way and wetting the floor" "Kids, the boots" "I feel irritated when I come back home and can't walk in the hallway" "Please bring us back on our rack" (<i>signed: your boots</i>)</p>
Session 3/Chapter 3	Alternatives to punishments	Structure Autonomy support	<ul style="list-style-type: none"> <li>- Express own feelings without attacking the child's character;</li> <li>- State your expectations;</li> <li>- Show him/her how to make amends;</li> <li>- Give him/her a choice of alternatives;</li> <li>- Take action if needed;</li> <li>- Problem-solve with child.</li> </ul>	<p>"I don't like to see food residues on the couch" "I expect eating to take place in the kitchen" "This couch needs to be cleaned. Here's a wet sponge with some soap on it" "You can either eat your snack in the kitchen before watching TV or watch TV now and save your snack for later" After giving options (see above), take away the snack. Brainstorm (write child's ideas and your own), select one idea, plan and implement it.</p>
Session 4/Chapter 4	Encouraging autonomy	Autonomy support	<ul style="list-style-type: none"> <li>- Let him/her decide;</li> <li>- Respect the child's struggle;</li> <li>- Limit the number of questions;</li> <li>- Don't rush to answer his/her questions;</li> <li>- Promote some outside resources;</li> <li>- Don't take away the child's hope.</li> </ul>	<p>"Do you want the blue or the red shirt?" "Pouring milk in a glass can be tricky, sometimes it helps to use a wide glass" Let child talk about his/her day when s/he wants to. "Interesting, why do you think kids lose their teeth?" "I wonder what the dentist would say" "An astronaut! What an interesting career." "I see toys on their shelf" "It feels good to sit on the couch easily" "That's what I call <i>organization</i>"</p>
Session 5/Chapter 5	Descriptive praise	Affiliation Structure Autonomy support	<ul style="list-style-type: none"> <li>- Describe the child's behavior or accomplishment;</li> <li>- Describe own feelings;</li> <li>- Summarize the child's behavior with a noun.</li> </ul>	<p>Example: the "sore loser" "You shook the winner's hand" "Let's play a game of ..." "Suzie congratulated me when..." "Congratulations for winning this game!" "I remember when you congratulated me for winning at ..." "I expect you to congratulate the winner after a match"</p>
Session 6/Chapter 6	Freeing children from playing roles	Affiliation Structure Autonomy support	<ul style="list-style-type: none"> <li>- Notice counter role behavior from the child;</li> <li>- Provide him/her with counter role opportunities;</li> <li>- Let the child overhear positive comments;</li> <li>- Model appropriate behavior;</li> <li>- Recall one of the child's counter role behavior in the past;</li> <li>- If s/he reverts to an old role, state your feeling and expectation.</li> </ul>	
Session 7	Integration		<ul style="list-style-type: none"> <li>Open, guided discussion;</li> <li>Activity about managing typical parent-child interactions by integrating various skills;</li> <li>Description of participants' accomplishments in learning skills.</li> </ul>	

Adapted from Joussemet et al. (2014).

closest to age 9. After obtaining parental consent, children completed their pre-intervention questionnaires at school, in the presence of a research assistant.

Families were randomized within each school. Specifically, after completing their pre-intervention assessment, participants were randomly assigned with a 1:1 ratio to either: 1) the How-to condition (attending the program in a few weeks) or 2) the waitlist condition (attending the program 14 months later). The seven-session program was then delivered in children's elementary schools. Although it was possible for two parents of a same family to participate, data of only one participating parent per family were included in the analyses. When couples attended the program together, data from one parent was randomly selected to be analyzed. When parents attended different groups, data from the first participating parent was selected to be analyzed.

One week after the end of program delivery, post-intervention assessments (paper-pencil or online, according to parents' preference) were sent to all participating parents (T2). Parents also completed six-month (T3) and one-year (T4) follow up assessments. Children completed their post-intervention and follow up assessments at school, in the presence of a research assistant. The study was approved by the authors' University Ethical Research Committee (Joussemet, Mageau, Larose, Briand, & Vitaro, 2018) and registered on a primary clinical trial registry (NCT number: 03030352).

### Intervention

#### How-to parenting program curriculum

We evaluated the popular, yet not formally studied, parenting program called *How to Talk so Kids will Listen & Listen so Kids will Talk* (How-to Parenting Program). This program was offered in French, once a week for seven consecutive weeks, from 7 to 9:30 pm, by two trained facilitators. The program's main themes and skills are summarized in Table 1, along with examples and corresponding parenting components. All parents had their own copy of the book for their weekly reading and a workbook to complete exercises during and between sessions.

All sessions begin with a 30-min (or less) discussion about the previous week's homework (except session 1). During these discussions, facilitators welcome and listen to parents' account of their new skill implementations. Next, the main theme of the session is introduced by a perspective-taking exercise: Parents place themselves in their "child shoes" and reflect upon how they feel while listening to common, yet suboptimal parental comments/requests made to children. Parents are then presented with alternative communication skills (average of five new skills per week) through comic strips illustrating parent-child interactions. The rest of each session comprises various exercises that allow parents to practice the learned skills. Most exercises are role-playing activities, often conducted in dyads. Regardless of format, all exercises require parents to reflect upon and describe what they could say or do in different scenarios. After each exercise, parents share their experiences in subgroups and through a structured group discussion. Before leaving, facilitators introduce the homework for the week and remind parents of the importance of trying skills at home with their own children. By the end of the first six sessions, parents have been exposed to a total of 30 parenting skills. The seventh session is an integrative session during which parents discuss how to apply the skills to child-rearing challenges.

#### Facilitators' training and supervision

In line with the inclusive stance adopted by the developers of the How-to Parenting Program, there was no required qualification to become a facilitator. In this RCT, facilitators were either graduate students in psychology, parents or adults involved in education or a related domain. All facilitators received a three-day training led by a mentor with decades of experience offering the program. During this training, future facilitators learned about the program's content by taking part in

the program as parents would. They also learned about their expected role (e.g., modeling the program's communication skills during the session; avoiding acting as an "expert"). Facilitators were also encouraged to convey unconditional regard, be empathic and foster self-compassion. Finally, the training addressed key issues associated with facilitating a group within a RCT (e.g., content fidelity).

Each parenting group was led by a dyad of facilitators, with at least one of the two facilitators having already led the program. After each session, facilitators were encouraged to share their experience with one another and ask questions to the principal investigators. Individual supervision with one of the principal investigators, also a licensed psychologist, was available if needed.

### Measures

#### Parental autonomy support

*Parent report (PR)*. At each assessment time, parents reported on their provision of the autonomy-supportive parenting component using the French version of the *Parental Attitude Scale* (Gurland & Grolnick, 2005). This instrument evaluates parent level of agreement with 10 statements regarding child rearing attitudes and behaviors on a seven-point response scale (1 = *Do not agree at all* to 7 = *Very strongly agree*). Four statements tap on the autonomy support subcomponent (e.g., "I encourage my child to give his/her opinions even if we might disagree"), while six other items tap on the autonomy-thwarting subcomponent (e.g., "Children should not question the authority of their parents"). Following past studies, we reversed the scores of the autonomy-thwarting items and calculated a global autonomy support index score. This global score has high validity, being related to observational measures of global autonomy support, as well as to various documented antecedents and outcomes of autonomy support (e.g., Robichaud et al., 2020). In the present study, internal consistency coefficients of the scale were acceptable at all assessment times ( $\alpha$  ranging from 0.70 to 0.75).

*Child report (CR)*. At each assessment time, children reported on their perceptions of parental autonomy support with the French version of the *Perceived Parental Autonomy Support Scale* (P-PASS; Mageau et al., 2015). This validated 24-item instrument assesses the extent to which children perceive that their parents tend to behave in an autonomy-supportive way (i.e., by acknowledging their perspective, providing rationales for their demands and limits, and encouraging their active participation within set limits) and in an autonomy-thwarting way (i.e., by using threats of punishment, guilt-inducing criticisms and performance pressures), using a 4-point response scale (1 = *Almost never true* to 4 = *Almost always true*). In contrast with the PR of autonomy support (i.e., *Parental Attitude Scale*), the CR instrument was designed as a two-factor scale with autonomy-supportive and autonomy-thwarting items forming two distinct subscales (Mageau et al., 2015). Accordingly, we calculated two distinct scores of perceived autonomy support and perceived autonomy-thwarting. Internal consistency coefficients were satisfactory at all assessment times, both for the autonomy support items ( $\alpha$  ranging from 0.74 to 0.81) and the autonomy-thwarting items ( $\alpha$  ranging from 0.73 to 0.84).

#### Parental affiliation

At each assessment time, parents and children reported on parental affiliation using the *Care* subscale of the French version of the *Parental Bonding Instrument* (Parker, Tupling, & Brown, 1979). This valid and reliable subscale examines the extent to which parents are caring and involved with their child (e.g., "I am warm towards my child"; parent version item) and avoid showing indifference or rejection (e.g., "My parent does not speak a lot with me"; child version reversed item). Parents answered the questions on a 7-point response scale (1 = *Almost never* to 7 = *Almost always*). Children answered them using a 4-point



response scale (1 = *Almost never true* to 4 = *Almost always true*). Internal consistency coefficients were satisfactory at all assessment times, both for parents ( $\alpha$  ranging from 0.81 to 0.84) and children ( $\alpha$  ranging from 0.75 to 0.86).

#### Parental structure

At each assessment time, parents and children reported on parental structure using the French version of the *Structure vs. Laxness* subscale of the *Parenting Scale* (Arnold, O'Leary, Wolff, & Acker, 1993). This bipolar subscale examines the extent to which parents set clear limits and enforce rules (e.g., "When my child won't do what I ask, I take some other action"; one pole of a parent version item) as opposed to being more permissive (e.g., "When my child won't do what I ask, I often let it go"; other pole of a parent version item). Higher scores thus imply that parents are more structuring as opposed to permissive. Parents used a 9-point response scale to answer, while children used a 4-item response scale.

The *Structure vs. Laxness* subscale has good psychometric properties for parents, but is less reliable for children (i.e.,  $\alpha$  of the French version ranging from 0.54 to 0.57; e.g., Joussemet et al., 2014). In the present study, internal consistency coefficients were satisfactory for parents ( $\alpha$  ranging from 0.72 to 0.80), but inadequate for children ( $\alpha$  ranging from 0.27 to 0.48). Removing problematic items in the child version as done in previous studies (e.g., Mageau et al., 2018) did not improve internal consistency to a sufficient degree ( $\alpha$  ranging from 0.37 to 0.57). Examining whether two items of the child version correlated across assessment times so that they could be used as a proximal indicator of child perceived parental structure revealed no systematic statistically significant correlation between items across assessment times. Consequently, we excluded the CR of parental structure from all analyses.

#### Parental use of how-to parenting skills

At each assessment time, parents also reported on the extent to which they used a subset of the skills taught in the How-to Parenting Program (Joussemet et al., 2014). Specifically, parents read 12 parent-child situations (e.g., Child forgets to put the milk in the refrigerator) and indicated on a 9-point bipolar scale the extent to which they tended to respond to these situations using skills taught in the program (e.g., saying "Milk turns bad when left on the table") as opposed to common yet suboptimal strategies (e.g., saying "You left the milk on the table again; Put it in the refrigerator *right now*"). Higher scores on this scale implies that parents perceive using the selected How-to Parenting skills more often. Internal consistency was weak at T1 ( $\alpha = 0.63$ ) but good from T2 to T4 ( $\alpha$  ranging from = 0.83 to 0.85).

#### Sociodemographics

We asked parents to provide sociodemographic information at pre-intervention. Parents indicated their age, their gender, their education level, their marital situation, their native language, their families' annual income, as well as their children's age and sex.

#### Implementation monitoring

As recommended by Dumas, Lynch, Laughlin, Smith, and Prinz (2001), we asked facilitators to (1) audiotape their sessions so that independent coders could assess content fidelity and (2) take parent attendance on-site to assess their exposure to the program. To evaluate differentiation, we asked parents in the waitlist condition to indicate if and how much they had read the How-to parenting book as it is available in libraries.

To increase exposure, facilitators called each parent who did not attend a given session. During those calls, facilitators informed parents about the content of the missed session and where to find the missed information, which is fully presented in the program material. If two consecutive sessions were missed however, facilitators did not call a second time.

#### Preliminary analyses

To ensure the validity of observed means, we first transformed all outliers into scores no further than 3.29 standard deviations below/above the mean. We then verified randomization success by comparing the How-to and waitlist conditions on 15 variables that could directly or indirectly affect the impact of the intervention, namely T1 parental use of the selected How-to skills (PR), T1 ratings of each parenting component (PR and CR), family income, parental education level, marital situation, native language, age and gender as well as child sex and age. To do so, we first tested differences between conditions for each variable using a liberal critical  $p$  value of 0.10 and a univariate approach. All statistically significant differences were tested again but this time using a multivariate approach and the same critical  $p$  value. Any variable differing between conditions at  $p \leq 0.10$  at the multivariate level was retained as a covariate in our main analyses to adjust for observed pre-intervention differences between conditions.

Limited pre-intervention differences between conditions were found. At the univariate level, parents in the How-to condition were rated by their children as more autonomy-thwarting than parents in the waitlist condition at T1,  $p = 0.029$ , and tended to rate themselves as lower on global autonomy support than those in the waitlist condition,  $p = 0.102$ . Parents in the How-to condition were also younger,  $p = 0.011$ , and had a lower family income,  $p = 0.072$ , than those in the waitlist condition. No other statistically significant difference was observed between conditions, all  $ps \geq 0.151$ . All observed differences remained statistically significant at the multivariate level, all  $ps \leq 0.101$ . We thus retained pre-intervention CR autonomy-thwarting parenting, pre-intervention PR global autonomy support, parental age (which we standardized prior to conducting our main analyses to avoid estimation problems caused by its large standard deviation) and family income as covariates in our main analyses. Raw scores on each parenting component, as reported by parents and children at each time point and according to conditions, are presented in supplemental material.

#### Plan of analyses

After examining the composition of our sample, we conducted attrition analyses, verified the adequacy of the program's implementation and examined whether being in the How-to condition led parents to report higher usage of the program's skills. To assess the impact of the How-to Parenting Program, we used multilevel analyses with the MLR estimator in Mplus (Muthen & Muthen, 2017). We chose multilevel analyses because they allow to examine condition differences while taking into account the non-independence of the multiple data points nested within each participant. Multilevel analyses with MLR estimation also have the advantage of allowing for non-normal and missing data (Hox, Maas, & Brinkhuis, 2010). All participants were thus included in the analyses regardless of attrition rate, with missing data being handled using full information maximum likelihood (FIML; Larsen, 2011).

To examine the impact of the program and its stability over time concomitantly, we treated the post-intervention and follow up data points (T2 to T4) as repeated measures. We entered all retained covariates as fixed factors in all our models. As primary analyses, we first examined the impact of the program on parenting at post-intervention (T2). At the within-person level, we estimated the slopes of our outcome assessments such that their intercepts would represent participant post-intervention ratings (T2). At the between-person level, we regressed the intercepts and the slopes of our outcome assessments on the experimental condition variable (0 = waitlist condition; 1 = How-to condition) as well as on the identified covariates, which were centered at their grand mean.

Second, we examined the stability of the program's impact. To do so, we reanalyzed our first model, but this time we estimated the slopes of parenting assessments so that their intercepts would represent participant scores at 6-month follow up (T3), thereby allowing us to examine

linear and curvilinear trends from T2 to T4 while minimizing multicollinearity. We first examined whether linear trends differed between conditions and then repeated this procedure for curvilinear trends. Absence of linear and curvilinear trends on a given parenting component was interpreted as an indication that T2 differences (or lack thereof) on that component remained stable over time.

As sensitivity analyses, we first examined how parents within each condition changed in their parenting from pre-intervention (T1) to post-intervention (T2) and each follow up assessment (T3 and T4). To do so, we conducted multilevel multigroup analyses (with each condition modeled as one group). At the within-person level, we regressed parenting assessments on dummy codes representing the differences between T1 and the post-intervention and follow up assessments (T2, T3 and T4). At the between-person level, we estimated the intercepts (scores at T1) and slopes (differences between T1 and each of the T2-T4 assessments), while allowing them to covary.

Finally, we explored whether the impact of the How-to Parenting Program on T2 parenting assessments was moderated by (1) pre-intervention ratings of each parenting component, (2) child age, (3) child sex and (4) parent gender. To do so, we included each potential moderator in our primary model one at a time, thereby yielding one exploratory model per moderator.

To examine the program's effect size, we calculated Cohen's  $f^2$  for our primary and moderation analyses (Lorah, 2018). According to Cohen (1992),  $f^2$  values of 0.02, 0.15 and 0.35 are considered small, medium and large, respectively. For comparison purposes, we also calculated Cohen's  $d$  using unstandardized betas as mean differences and raw pooled standard deviations. In line with Wilkinson (1999), we reported 95% confidence intervals (95% CI) for our parameter estimates of interest (i.e., beta coefficients).

## Results

### Participants

Altogether, 293 parents of different families and one of their children, distributed into 30 groups, participated in this study. Parenting groups were composed of 5 to 14 parents ( $M = 9.77$ ,  $SD = 3.00$ ) whose participating children typically attended the same school but varied in age. Regarding parent gender and child sex, four out of five parents were mothers (80.20%), while half of targeted children were girls (50.00%). The majority of parents were aged between 30 and 50 (91.58%); the rest were in their twenties (2.81%), fifties (4.91%) or sixties (0.70%;  $M = 40.26$  years old,  $SD = 5.76$  years old). Half of targeted children were aged between 5 and 7 years old (50.86%) and two fifths were aged between 8 and 10 (39.86%); the remainder were 11 years old (5.84%), 12 years old (2.41%) or, unexpectedly and most likely due to parents' misunderstanding of inclusion criteria, 3 or 4 years old (1.03%;  $M = 7.60$  years old,  $SD = 1.92$  years old). Out of these 293 parent-child dyads, 118 children were old enough and consented to fill-out CR questionnaires. Given our final sample size, we expected sufficient power to detect moderate effects for parents, but only large effects for children.

Most parents were married or common-law partners (86.44%); the remainder reported being single parents (13.56%). Out of 147 families in the How-to condition, 10 (6.80%) had both parents attending the program, either simultaneously or spaced in time. Overall, our sample's socioeconomic status was relatively high, with 74.31% of parents having a university diploma and 21.18% having another post-secondary certification. The remainder reported either a high school diploma (3.47%) or an elementary school diploma (1.04%) as their highest degree. Approximately one third of parents reported a familial income (CAD) over \$100,000 (35.09%), while another approximate third reported earning between \$50,000 and \$100,000 (38.95%). Among the remaining parents (25.96%), half reported an income between \$30,000 and \$50,000 (12.63%) and the other half reported an annual income under

\$30,000 (13.33%). When prompted on their ethnicity, more than half of parents identified themselves as Canadian (55.83%); the rest identified as Arabic (7.07%), Caucasian (5.65%), French (5.65%), Haitian (3.18%), Hispanic (3.13%) or as part of one of 34 other ethnic groups (19.49%; 1.77% of parents or less per category). In terms of language, about three quarters of parents reported French as their native language (74.14%); the remaining reported English (2.41%), Arabic (1.72%), Spanish (1.38%), another language (2.41%) or did not specify their native language (17.93%). Importantly, 92.50% of parents reported that their French level did not interfere with their learning process throughout the program, and none reported that it had been an "important obstacle".

### Implementation results

Our RCT followed our pre-registered planned design (Joussem et al., 2018) with three exceptions. Specifically, compared to the planned RCT, the actual RCT included: (1) a smaller number of participating schools (15 vs. 16), (2) a larger number of total participants (293 vs. 256 parents; 118 vs. 128 children) and (3) one fewer wave of recruitment (3 vs. 4). All facilitators delivered the full program to their group. If a session had to be cancelled (e.g., a heavy snowstorm), the session was postponed to the following week and the program went one-week longer than anticipated. Content fidelity was high for parents in the How-to condition, with 86.86% of the program's planned activities coded as fully delivered by independent coders ( $ICC = 0.79$ ). Exposure was also elevated, with parents attending an average of 5.80 sessions ( $SD = 1.68$ ) and 86.30% of parents having attended at least 5 sessions. Session attendance rate (averaged across groups) ranged from 76.87% to 90.47% (see Table 2). Approximately nine out of ten non-attendances (89.12%) were considered random. The other non-attendances were either participants who dropped-out (7.48%) or never attended the workshop (3.40%). Examining gender differences in attendance revealed no difference in mother and father average number of attended sessions,  $p = 0.472$ .

Though implementation was satisfactory, differentiation was imperfect. Specifically, only half (53.42%) of parents in the waitlist condition confirmed having had no contact with the How-to book (13.69% of waitlist participants reported having read some of the How-to Parenting book and 32.88% did not answer the reading question). For more information on implementation integrity, please see Lafontaine et al. (2021).

### Implementation of the how-to parenting skills

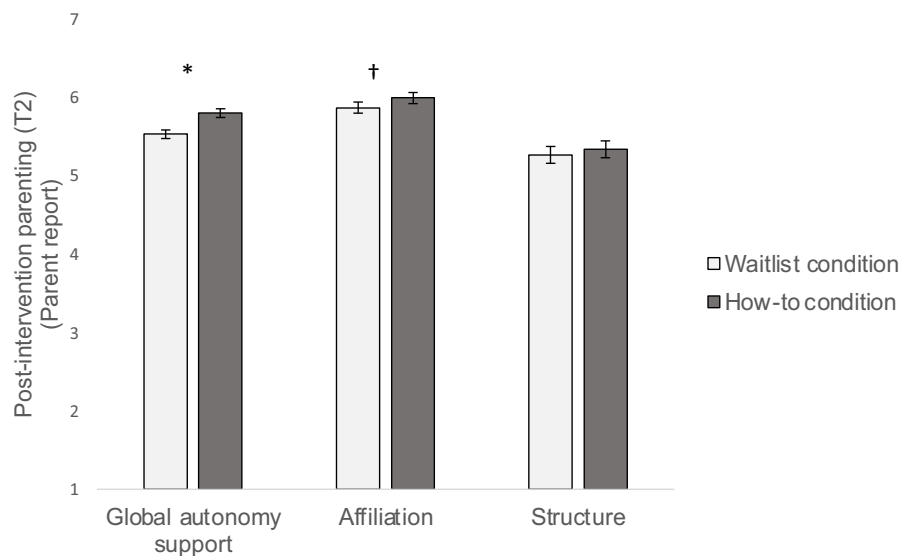
Parents in the How-to condition reported using more How-to Parenting skills at T2 than at T1,  $B = 1.69$ , 95% CI [1.49; 1.90],  $p < 0.001$ . Importantly, they also reported using more How-to Parenting skills at T2 than parents in the waitlist condition,  $B = 1.18$ , 95% CI [0.94; 1.43],  $p < 0.001$ . Examining residual variance of the How-to Parenting skills at T2 revealed statistically significant remaining variability,  $\sigma^2 = 0.63$ ,  $p < 0.001$ , implying that other factors beyond the experimental manipulation and initial covariates influenced the extent to which parents reported using the skills. Examining linear trends from T2 to T4 revealed no statistically significant difference between conditions,  $p = 0.097$ , suggesting that observed differences at T2 favoring the How-to condition remained constant throughout the one year follow up period.

### Attrition analysis

The RCT took place in 15 schools. In total, 147 parents were in the How-to condition, while 146 parents were in the waitlist condition (15 How-to and 15 waitlist groups). Among these families, 146 parents and 55 children in the How-to condition as well as 144 parents and 53 children in the waitlist condition completed the questionnaires at pre-

**Table 2**  
Session attendance rate averaged across groups for parents in the how-to condition.

Session	1	2	3	4	5	6	7
Attendance rate	90.47%	82.99%	80.27%	84.35%	76.87%	80.95%	85.03%



**Fig. 2.** Main analyses – Post-intervention (T2) differences between conditions (Parent Report).

Bars with an asterisk differ at  $p < 0.05$ . Bars with a cross differ at  $p < 0.10$ . Parental structure was assessed on a 9-point scale but is converted here on a 7-point scale for comparison purposes. 95% CIs are depicted.  $N = 293$ .

intervention. At post-intervention (T2), 127 parents and 56 children in the How-to condition filled the questionnaires, while 118 parents and 50 children in the waitlist condition completed the assessment (for a total of 245 parents and 106 children). The overall number of participating parents and children remained relatively stable at follow ups (6-month follow up,  $n = 248$  parents and 86 children; 1-year follow up,  $n = 240$  parents and 102 children).

We conducted attrition analyses to compare whether parents and children who completed all questionnaires differed from those who missed at least one assessment time-point. Specifically, we examined potential differences in their assigned condition (How-to vs. waitlist), socioeconomic status (i.e., education and income) and sociodemographic characteristics (i.e., child sex and age; parent gender, age, native language, and marital status). MANOVA revealed no evidence of differential attrition at the multivariate level for parents or children, both  $ps \geq 0.674$ .

### Main results

#### Impact of the how-to parenting program on parenting

**Parent report (PR).** As shown in Fig. 2, examining the impact of the How-to Parenting Program on parenting revealed that, while adjusting for the identified covariates, parents in the How-to condition rated themselves as more autonomy-supportive at T2 than parents in the waitlist condition,  $B = 0.27$ , 95% CI [0.16; 0.38],  $f^2 = 0.08$ ,  $d = 0.42$ ,  $p < 0.001$ . They also rated themselves higher on affiliation,  $B = 0.12$ , 95% CI [-0.02; 0.26],  $f^2 = 0.01$ ,  $d = 0.19$ ,  $p = 0.090$ , though this difference was not statistically significant. No post-intervention difference between conditions on parent self-reported structure was found,  $p = 0.523$ .

**Child report (CR).** Examining the program's impact on (8 years and older) child perceived parenting at T2 revealed no statistically

significant difference between conditions, all  $ps \geq 0.182$ .

#### Stability of the how-to parenting program's effects

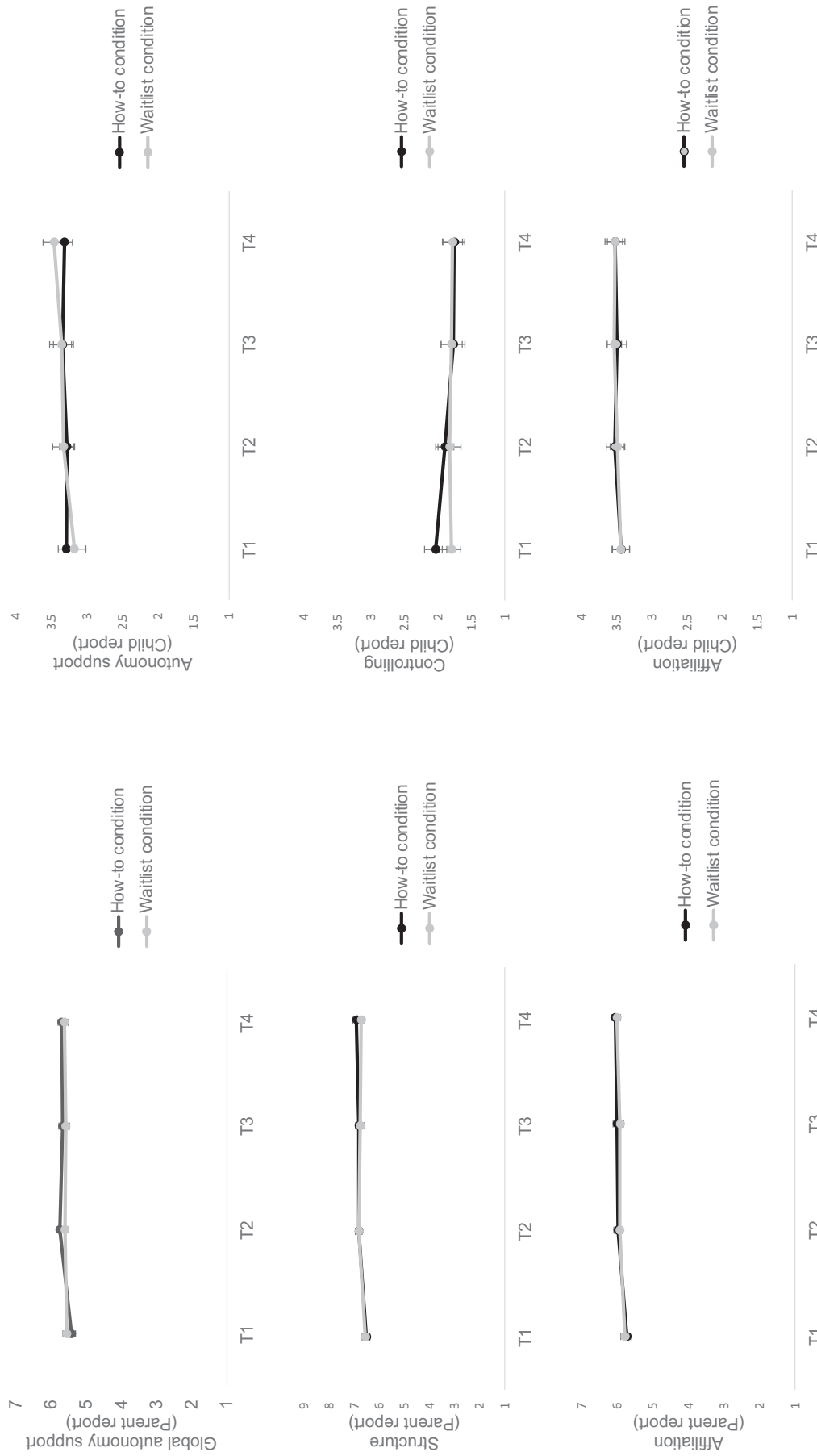
Examining differences between conditions on post-intervention linear and curvilinear trends from T2 to T4 for PR parenting revealed no statistically significant condition effect, all  $ps \geq 0.121$ , suggesting that observed differences at T2 favoring the How-to condition remained constant throughout the following year. Similarly, looking at post-intervention linear trends from T2 to T4 but this time for CR parenting revealed no statistically significant difference in linear and curvilinear trends between conditions, all  $ps \geq 0.118$ .

#### Sensitivity analyses: Within group change from t1 to post-intervention assessments

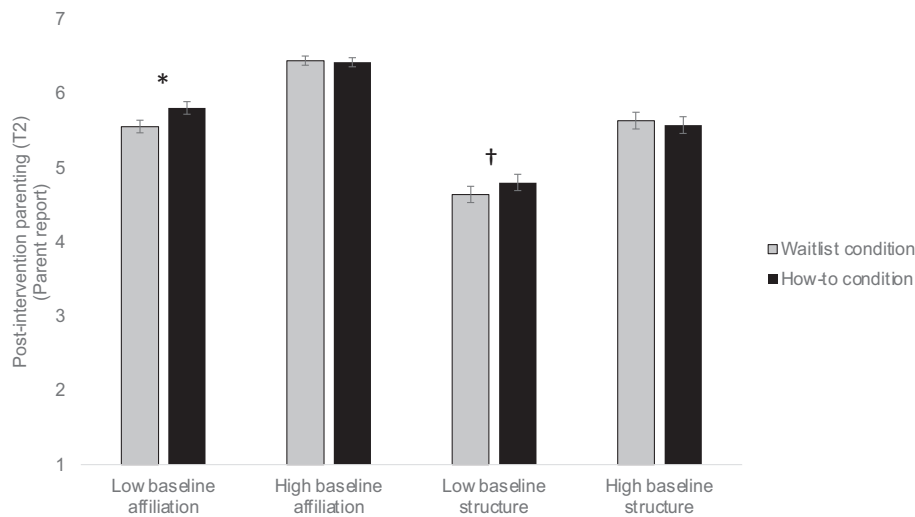
Examining changes in PR parenting components from pre-intervention to each post-intervention assessment revealed several changes within each group. As shown in Fig. 3, parents in the How-to condition reported higher scores than their pre-intervention ratings on all parenting components at each post-intervention assessment, all  $Bs \geq 0.25$ , all 95% CIs [ $\geq 0.16$ ;  $\geq 0.34$ ], all  $ps \leq 0.001$ . Parents in the waitlist condition also reported higher scores on affiliation and structure at each post-intervention assessment, compared to their pre-intervention ratings, all  $Bs \geq 0.14$ , all 95% CIs [ $\geq 0.03$ ;  $\geq 0.22$ ], all  $ps \leq 0.017$ , but differences on global autonomy support ratings were not statistically significant, all  $ps \geq 0.218$ .

Examining changes in CR parenting from pre-intervention to each post-intervention assessment revealed fewer changes. As shown in Fig. 3, children in the How-to condition reported less autonomy-thwarting parenting than their pre-intervention ratings at all post-intervention time points, all  $Bs \geq -0.14$ , all 95% CIs [ $\leq -0.27$ ;  $\leq -0.00$ ], all  $ps \leq 0.049$ . No other statistically significant change was observed in this condition, all  $ps \geq 0.200$ . Children in the waitlist condition reported more parental autonomy support than their pre-





**Fig. 3.** Change by condition from pre-intervention (T1) to post-intervention (T2), 6-month follow up (T3) and 12-month follow up (T4). PR structure is assessed on a 9-point scale. PR affiliation and global autonomy support are assessed on a 7-point scale. CR parenting components are assessed on a 4-point scale. 95% CIs are depicted. *N* (PR) = 293. *N* (CR) = 118.



**Fig. 4.** Moderation effect of pre-intervention affiliation and structure on post-intervention affiliation and structure, respectively, at T2 (Parent Report). Bars with an asterisk differ at  $p < 0.05$ . Bars with a cross differ at  $p < 0.10$ . Parental structure was assessed on a 9-point scale but is converted on a 7-point scale here for comparison purposes. 95% CIs are depicted.  $N = 293$ .

intervention ratings at all post-intervention time points, all  $B_s \geq 0.16$ , all 95% CIs [ $\geq 0.01$ ;  $\geq 0.31$ ], all  $p_s \leq 0.037$ . No statistically significant change was observed in parental affiliation in this condition, all  $p_s \geq 0.079$ , nor in autonomy-thwarting, all  $p_s \geq 0.730$ .

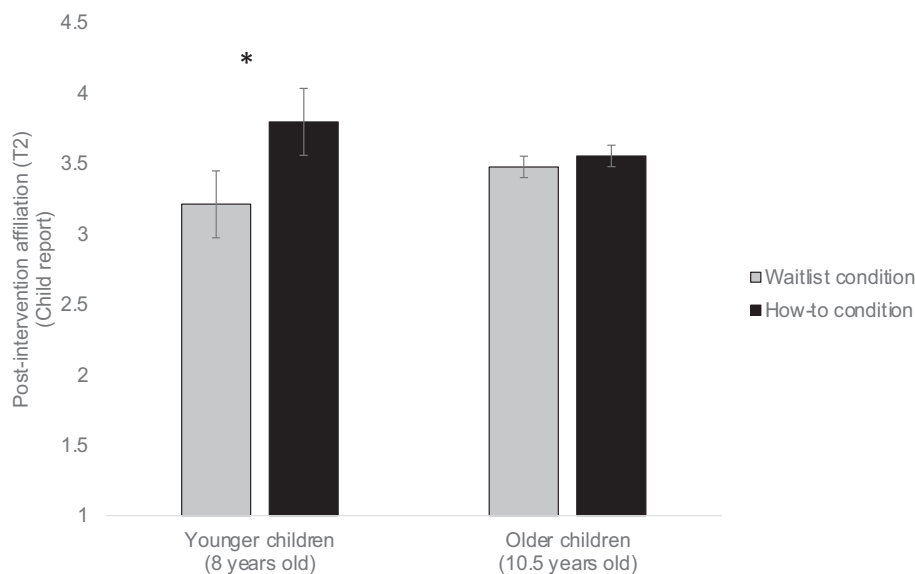
#### Exploring potential moderators of the impact of the how-to parenting program

Exploring potential interaction effects between conditions and T1 levels of each parenting component on their respective T2 assessments revealed two moderation effects with similar small effect sizes. Specifically, T1 PR affiliation and T1 PR structure respectively moderated the impact of the How-to Parenting Program on post-intervention PR affiliation,  $p = 0.013$ ,  $f^2 = 0.02$ , and post-intervention PR structure,  $p = 0.058$ ,  $f^2 = 0.01$ , though the latter moderation effect was not statistically significant. As shown in Fig. 4, parents with lower PR affiliation levels at pre-intervention who were assigned to the How-to condition scored higher on affiliation at T2 than those in the waitlist condition,  $B = 0.24$ ,

95% CI [0.07; 0.40],  $f^2 = 0.03$ ,  $d = 0.37$ ,  $p = .007$ . Similarly, parents with lower PR structure levels at pre-intervention who were assigned to the How-to condition scored higher on structure at T2 than those in the waitlist condition,  $B = 0.21$ , 95% CI [-0.01; 0.40],  $f^2 = 0.02$ ,  $d = 0.23$ ,  $p = 0.061$ , though this difference was not statistically significant. No statistically significant post-intervention difference was found for parents rating themselves as high on affiliation or on structure at pre-intervention, both  $p_s \geq 0.542$ . There was no interaction with pre-intervention PR assessments of autonomy support,  $p = .346$ . Exploring the same interactions but this time using (8-years-and-older) CR revealed no statistically significant interaction, all  $p_s \geq 0.146$ .

#### Child age

There was no statistically significant interaction between conditions and child age on PR parenting components at T2, all  $p_s \geq 0.081$ . However, there was a statistically significant interaction between conditions and child age on (8- to 12-year-olds) CR parental affiliation at T2,  $p = 0.034$ ,  $f^2 = 0.02$ . As shown in Fig. 5, younger children whose parents



**Fig. 5.** Moderation effect of child age on post-intervention affiliation at T2 (Child Report). Bars with an asterisk differ at  $p < 0.05$ . 95% CIs are depicted.  $N = 118$ .

were in the How-to condition rated their parents higher on affiliation at T2 than younger children whose parents were in the waitlist condition,  $B = 0.59$ , 95% CI [0.11; 0.99],  $f^2 = 0.06$ ,  $d = 1.25$ ,  $p = 0.016$ . In contrast, there was no statistically significant difference between conditions on parental affiliation among older children,  $p = 0.319$ . There was no other interaction with child age on CR parenting, all  $ps \geq 0.751$ .

#### *Child sex and parent gender*

We did not find evidence of an interaction between conditions and child sex on PR parenting at T2, all  $ps \geq 0.671$ , nor on CR parenting at T2, all  $ps \geq 0.105$ . Similarly, we did not find any interaction between condition and parent gender on post-intervention PR parenting components at T2, all  $ps \geq 0.303$ , nor on CR parenting at T2, all  $ps \geq 0.353$ .

## Discussion

We conducted a RCT to test the impact of the How-to Parenting Program on three key parenting components, namely autonomy support (vs. autonomy-thwarting practices), affiliation (vs. indifference or rejection) and structure (vs. laxness). Using a universal approach and a multi-informant design, we examined parent and child ratings of each parenting component at pre- and post-intervention and at 6- and 12-month follow ups. Overall, parents in the How-to condition perceived having improved to a greater extent than parents in the waitlist condition on autonomy support. Moreover, parents in the How-to condition who reported lower affiliation and structure at pre-intervention also reported higher affiliation and potentially higher structure, respectively, than parents in the waitlist condition. We found a small to medium effect size for autonomy support and small effect sizes for affiliation and structure. In contrast to these parent report findings, we observed limited differences in child perceptions of parenting between conditions.

#### *Implementation*

The implementation assessment suggests that group facilitators offered the program with high content fidelity and that the majority of parents in the experimental condition were exposed to most of, or all the program content. Indeed, parents in the How-to condition attended to 5.80 sessions on average, with only 28.57% being exposed to less than 6 out of 7 sessions and a minority dropping out or never attending the workshop (10.88%). Furthermore, at post-intervention, parents in the How-to condition reported using How-to skills to a greater extent than parents in the waitlist condition. Taken together, these results suggest that parents in the How-to condition were well exposed to the How-to Parenting Program (see Lafontaine et al., 2021, for further discussion on implementation integrity).

#### *The impact of the how-to parenting program according to parents*

Results from parent reports suggested positive effects of the program on key parenting components. First, parents in the How-to condition reported more autonomy support at post-intervention (small to medium effect size), compared to parents in the waitlist condition. This result is important since autonomy support is intimately tied to the satisfaction of basic psychological needs and ensued healthy development (Ryan & Deci, 2017). Second, moderation analyses revealed that among parents who initially reported lower affiliation and structure, those offered the How-to Parenting Program reported greater affiliation and potentially greater structure at T2, respectively, than those who were not yet offered this program (small effect sizes). Although results with respect to parent reported structure were not statistically significant, examining 95% confidence intervals nevertheless suggested that observed differences were likely to range from  $-0.01$  to  $0.40$ .

At first glance, this pattern of findings may seem to support a moderation hypothesis stating that the How-to Parenting Program would be more beneficial to parents presenting poorer initial parenting.

However, alternative explanations for the lack of main effects may be worth considering. Regarding affiliation, mean scores on PR affiliation at pre-intervention at one standard deviation above and one standard deviation below the mean (i.e., 6.43 and 5.10 on a 7-point scale) suggest a ceiling effect for parents scoring higher on affiliation. Given that self-report questionnaires about parental affiliation tend to produce high scores (e.g., Deater-Deckard et al., 2011), future research aiming to clarify the impact of the program on parental affiliation could benefit from using observational measures of affiliation. Another potential alternative explanation for the absence of main effect for both affiliation and structure lies in the fact that we only measured the quantity of affiliation and structure, rather than also assessing its quality. As could be seen in Table 1, the program focuses on helping parents provide affiliation and structure in a more autonomy-supportive way (rather than providing greater amounts of affiliation and structure per se). Consequently, it is possible that improvements on parental affiliation and structure were mostly of qualitative nature (i.e., more autonomy-supportive affiliation and structure) than in quantity (i.e., more overall affiliation and structure).

Yet another more general explanation for the observed differential effects of the program on autonomy support and the two other parenting components may stem from the fact that the program addresses autonomy support component throughout all six topical sessions, while it only taps onto structure and affiliation in approximately half of them (see Table 1). The program's focus on autonomy support may thus have made it possible for all parents to improve on this parenting component, but only possible for parents with poorer initial affiliation and structure skills to improve on these two latter components. Future research is needed to clarify this issue. For now, the present results indicate that the How-to Parenting Program is successful in increasing parental autonomy support and that it has potential to foster affiliation and structure among parents who rate themselves as colder and more permissive, respectively.

Finally, in coherence with Mageau et al. (2021), results suggested that the effects of the How-to Parenting Program (and lack thereof) were stable over time. Indeed, linear and curvilinear trends from T2 to T4 revealed no statistically significant difference between conditions, suggesting that observed differences at T2 favoring the How-to condition remained constant throughout the follow up period. Sensitivity analyses clarified that parents in the How-to condition improved on all parenting components from pre-intervention to T2 and that these improvements remained statistically significant at T3 et T4. Thus, results from parent reports indicate that the How-to Parenting Program may promote the development of enduring parenting skills, resulting in long-lasting change in parental autonomy support and, to some extent, affiliation and structure.

#### *The impact of the how-to parenting program according to children*

Results according to our smaller sample of 8-year and older children were more modest than what could have been expected based on parent reports. More precisely, no statistically significant main effect was observed between the conditions at post-intervention, nor over time. Examining moderation effects revealed no evidence of interaction effects either, with one exception: younger (but not older) children in the How-to condition reported more affiliation from their participating parent than children whose parents were in the waitlist condition (small effect size). One way to interpret these results may be to conclude that some of the observed changes in parenting components were limited to parental cognitions. Such interpretation is coherent with the parenting literature examining discrepancies between parent reports and other measurement sources (e.g., Thomas & Zimmer-Gembeck, 2007). Alternatively, one may link our lack of statistically significant findings on child reports to a lack of statistical power to detect effects of smaller size. Indeed, though we recruited 293 parents, only 40% of their grade school children ( $N = 118$ ) were old enough to fill-out questionnaires. As a

result, it is possible that smaller statistically significant effects such as the ones observed in PR could not be detected.

Nonetheless, sensitivity analyses assessing within-group changes from pre-intervention to T2-T4 allowed to gain some insights in these findings. First, they revealed that pre-intervention child perceptions of autonomy-thwarting parenting diminished among children in the How-to condition at post-intervention. An unexpected finding also emerged from the sensitivity analyses: children in the waitlist condition reported higher levels of autonomy support at post-intervention compared to pre-intervention. These results, combined with results of PR self-reported autonomy support, suggest that the How-to Parenting Program may be especially helpful to decrease autonomy-thwarting parenting. Future research using observational measures of autonomy-supportive and autonomy-thwarting parenting could further examine this possibility.

Alas, the impact of the program on child perceptions of structure could not be assessed due to psychometric issues. To overcome this limitation, future research could use structure scales specifically developed for children (e.g., [Ratelle, Duchesne, Guay, & Boisclair Châteauevert, 2018](#)). Future research would also benefit from using observational methods to assess changes in parenting. Indeed, observational methods offer more objective assessments of parenting behaviors in controlled and standardized settings. By relying on observations, it would also be possible to assess the specific parenting skills taught in the How-to Parenting Program and investigate how each demonstrated skill is implemented over time and in which context (e.g., playing, during guided-learning, asking for cooperation).

### Implications

The current findings have valuable implications for the How-to Parenting Program and the field of parenting at large. Through this RCT, it was possible to establish that this program is efficacious in improving key parenting components, thereby offering support to the theoretical proposition that the program's skills enable parents to offer both affiliation and structure in a more autonomy-supportive way. The observed beneficial effects suggest that this program could stand out from other parenting programs, notably by being the first to specifically improve autonomy support. Indeed, while most evidence-based parenting programs teach behavior modification principles and encourage positive parent-child interactions to improve structure and affiliation, they do not include autonomy support ([Bunting, 2004](#); [Patterson, Forgatch, & DeGarmo, 2010](#); [Serketich & Dumas, 1996](#); [Taylor & Biglan, 1998](#)). Given that all three components play unique roles in fostering child development and mental health ([Aunola & Nurmi, 2005](#); [Gray & Steinberg, 1999](#); [Grolnick & Ryan, 1989](#)), the How-to Parenting Program may constitute a promising avenue for helping parents provide these essential nutrients to children. The relative value of the How-to Parenting Program is further increased by its distinct high accessibility (e.g., easy-to-use manualized material; no formal certification required for group facilitators; book is available in more than 30 languages), which is crucial to facilitate outreach. This program could thus contribute to increasing parental access to comprehensive parenting education, which could have noteworthy benefits on the quality of parent-child interactions at the population level.

### Strengths and limitations

This study contains noteworthy strengths. First, conducting a RCT helped establish a causal link between the How-to Parenting Program and the three assessed key parenting components. Second, using a multi-informant design helped nuance our findings; results suggested limited agreement between parent and child reports. Third, the low attrition rate raised confidence in the validity of our findings. Fourth, we adopted the more stringent intent-to-treat analytic procedure (vs. per-protocol), which retains all participants who were randomized to the experimental conditions regardless of exposure and attrition rates. This analytic

procedure increases the external validity of the findings by providing direct information on what could be expected if the How-to Parenting Program were to be implemented at the population level. Finally, including follow up assessments enabled us to document that the program's impact was durable.

In addition to these strengths, this study also has noteworthy limitations that need to be addressed prior to recommending wider dissemination of the program. First, though we adopted a universal approach, the sociodemographic characteristics of our sample did not fully match those of the population, thereby raising doubts about the generalizability of our findings. Second, the lack of observational parenting measures limited the richness of our results. Given the discrepancies between parent and child reports, observations of parent-child interactions could have yielded additional information as to which specific aspect of parenting changed following program delivery (e.g., quality of structure). Third, the smaller sample size of participating children, which decreased statistical power, limits our confidence in findings based on these other informants. Relatedly, because we only asked children of 8 years of age and older to fill-out questionnaires, we cannot generalize findings obtained from child reports to younger children. Consequently, our only source of information for younger children are parent reports. The present study also only included parents of school-aged children such that the program's impact on parents of preschoolers or adolescents remains undocumented. Given that parent-child interactional patterns may become more entrenched over time, one could expect that the effect of the How-to Parenting Program would be stronger on parents of younger children. The moderating role of child age on their perceived affiliation supports this idea.

Finally, the differentiation between groups seemed rather low. Indeed, randomization was made within each of the participating schools and, importantly, only half of parents (53.42%) assigned to the waitlist condition confirmed not having read the How-to Parenting book prior to taking part in the program. Given that all recruited parents were interested in enrolling in a parenting program, it may be sound to assume that at least some parents in the waitlist condition invested in their parenting during their time on the waiting list. Furthermore, the mere action of filling out questionnaire may have induced positive parenting changes, as self-reports can lead parents to reflect upon, learn and try various positive parenting practices. Sensitivity analyses showing within-group improvements in affiliation and structure for parents in the waitlist condition supports this proposition.

### Conclusion

In sum, our findings suggest that the How-to Parenting Program may yield beneficial changes in key parenting components, according to parents. Given that parents play a determining role in child development and that beneficial parenting is neither instinctive nor easy, identifying interventions that may enhance parenting quality is crucial. The present results are promising as they show that the How-to Parenting Program may induce meaningful changes in self-reported parental autonomy support and, to some extent, affiliation and structure. To further understand the impact of this program, future RCTs could use observational measures of parenting, recruit more diversified samples and assess parents of younger children.

### Funding

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### Declaration of Competing Interest

All authors declare no conflict of interest.



## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.appdev.2021.101383>.

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