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Examining Overparenting and Child Gender in Adolescence

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Abstract

Objectives Overparenting research has been primarily confined to parents of adult, college-aged children. Few studies have examined overparenting among parents of early adolescent children, particularly in non-academic out-of-school time settings. The present study examined the relation between overparenting, commonly associated parental behaviors, and child gender, to determine if, in a sample of 169 parents of youth ages 11-17 (M = 15.49), the same relations would be present as in prior overparenting research with emerging adult samples.

Methods Data were collected using a cross-sectional design with a questionnaire administered to parents following their child's participation in a one-week university-based residential summer camp. The initial seven-factor scale included items related to overparenting, affect management, parental monitoring, digital limit setting, psychological control, risk aversion, and autonomy granting. The final seven-factor 22-item measure was validated through confirmatory factor analysis and study hypotheses were tested through a structural equation model.

Results Consistent with much of the overparenting literature involving parents of emerging adults, overparenting had a significant positive direct effect on affect management, parental monitoring, parental digital limit setting, psychological control, and risk aversion, and a significant negative direct effect on autonomy granting. No relation was found between child gender and affect management, parental monitoring, parental digital limit setting, risk aversion, psychological control, or autonomy granting.

Conclusions The findings were partly consistent with prior studies of emerging adults and have implications for our understanding of overparenting during adolescence as well as within the out-of-school time contexts in which overparenting research is emerging.

Keywords Overparenting · Helicopter parenting · Adolescence · Out-of-school time · Parental involvement · Parenting

Within academic, athletic, and out-of-school-time (OST) contexts an evolving parental style, termed *overparenting* (i.e., helicopter parenting), is increasingly concerning to those responsible for delivering programs and services to youth (Garst and Gagnon 2015). While our understanding of overparenting is seemingly well-established within academic settings among college-aged students and their parents (Segrin et al. 2015), research on the influence of overparenting on parental decisions regarding their child's OST experiences has been minimal (Janssen 2015). Indeed, research indicates overparenting behaviors

Ryan J. Gagnon rjgagno@clemson.edu influence a child's development at a much earlier phase than emerging adulthood (Hong et al. 2015; LeMoyne and Buchanan 2011). Thus, investigating overparenting among younger children may illustrate contextual and relational differences between overparenting and related factors (e.g., psychological control; Padilla-Walker and Nelson 2012). Beyond contextual (i.e., OST versus college settings) and age-related differences (i.e., emerging adults versus adolescents), there is an under-developed empirical understanding of the influence of demographic characteristics on overparenting, especially within OST contexts (Gagnon 2019; Gagnon and Garst 2019). Specifically, literature suggests overparenting may manifest differently based on the child's gender. For example, parents' investment of resources in their child may be gender-dependent (Song 2018), and overparenting behaviors may occur at higher levels dependent on the child's gender (Kouros et al. 2017).

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While conceptual understanding of what factors or contexts may influence overparenting, there is some congruence on definitional characteristics of overparenting. Specifically, overparenting represents a group of wellintended parental behaviors taken to an excessive degree (LeMoyne and Buchanan 2011; Segrin et al. 2012). Schiffrin et al. (2015) described these well-intended behaviors as part of a U-shaped curve, where on one end developmentally appropriate behaviors are absent, possibly leading to increases in negative outcomes for a child (e.g., overly-permissive parenting). On the other end of this curve parental behaviors are developmentally excessive, also potentially resulting in negative outcomes for a child. Reflecting this excessive tail of the curve proposed by Schiffrin et al. (2015), Gagnon and Garst (2019) defined overparenting as consisting of three dimensions: excessive parental support, excessive problem solving, and excessive control. Similarly, Segrin et al. (2012), operationalized overparenting as a combination of well-intended behaviors taken to an excessive degree: anticipatory problem solving, advice/affect management, child self-direction, and tangible assistance. Notably, Segrin et al. (2012) and Gagnon and Garst (2019) measured overparenting on a continuum, with lower scores reflecting diminishing degrees of excessive behaviors and thus overparenting. These approaches suggest a central premise underpinning overparenting research, where some parental behaviors (e.g., "I try to solve problems for my child before s/he even experiences them") are acknowledged as appropriate for a child's healthy development. For instance, if a parent observed their child eating large bites of food during a meal and feared the child could choke, they may cut the child's food into smaller portions, thus anticipating and solving a problem (choking), before the child experienced it. However, when a parent continues to cut their child's food into smaller portions without teaching the child to manage larger portions (i.e., cut them up or avoid eating them), the once appropriate parental behavior shifts to excessiveness and may correspondingly hinder a child's development. This continuum-based conceptualization of overparenting is captured in the emerging overparenting literature (e.g., Kouros et al. 2017; Schiffrin and Liss 2017; Segrin et al. 2015) and reflects how overparenting may result from well-intended, developmentally appropriate behaviors taken to an excessive degree.

While definitional clarity has emerged within the overparenting literature, the structure of the overparenting construct remains unclear. For instance, Segrin et al. (2012) and Gagnon and Garst (2019) operationalized overparenting as a higher-order construct (i.e., second-order factor) reflecting several sub-dimensions (e.g., anticipatory problem solving, excessive control). Conversely, other investigators have treated overparenting as a single dimension encompassing these higher order behaviors (i.e., first-order factor; e.g., Padilla-Walker and Nelson 2012; Schiffrin et al. 2019). A deeper examination of both approaches across studies suggests definitional crossover in the items comprising the overparenting construct (Padilla-Walker and Nelson 2012; Segrin et al. 2012). Despite the differentiation in the construction of overparenting models, the emerging body of research suggests overparenting is structurally independent from some parenting behaviors (e.g., psychological control; Padilla-Walker and Nelson 2012), while also highly related to other parenting behaviors (e.g., control, monitoring, and communication; Schiffrin et al. 2015). For example, parents who engage in overparenting tend to monitor and/or involve themselves at higher levels in their child's physical and digital lives (Hong et al. 2015; Kelly et al. 2017; Willoughby et al. 2015). In addition to these higher levels of monitoring and limit setting, overparenting is also associated with higher rates of behavioral and psychological control (Padilla-Walker and Nelson 2012; Willoughby et al. 2015). These excessive monitoring and controlling parental behaviors are also related to parent anxiety (Segrin et al. 2013). For example, in a meta-analysis of the association between parental control and child and parental anxiety, van der Bruggen et al. (2008) found small but significant relations between parental control and parental anxiety for school-aged children. Other studies suggest overparenting behaviors are associated with risk aversion (Segrin et al. 2015), where overparents' attempt to protect their child from academic failure, physical danger, social harm, and contact with nature (Gagnon and Garst 2019; Hong et al. 2015). For instance, Wall (2010) suggested the desire for one's child to thrive in increasingly competitive academic or career pursuits escalates parental anxiety towards their child's likelihood of future success. Parallel to these associations with parental anxiety and risk aversion, overparenting behaviors are also linked with affect management, where parents readily provide advice and attempt to manage their child's levels of happiness or anxiety (Burke et al. 2018). When parental monitoring or control are excessive, the combination of overparenting behaviors and related constructs such as parental anxiety often results in a reduction of a child's well-being (Cui et al. 2018b; LeMoyne and Buchanan 2011).

Among the developmental consequences associated with overparenting, the lack of child agency and independence is the most frequently cited negative outcome. Specifically, parent and child reports of overparenting behaviors almost universally indicate a reduction in autonomy supportive/ granting behaviors on the part of the parent (Schiffrin et al. 2014) and/or perceived level of parental-granted autonomy on the part of the child (Kwon et al. 2016), where parents reduce their child's opportunity to develop decision-making skills by solving problems before the child can respond (Segrin et al. 2012). Correspondingly, when an overparented child encounters a circumstance requiring independent decisionmaking (e.g., job interviews, professional deadlines, navigating peer interactions), the child often reports elevated levels of stress and anxiety. For example, in a study of college students and their mothers, Schiffrin and Liss (2017) found overparenting behaviors were associated with reduced goal orientation, lower intrinsic motivation, and increased academic anxiety on the part of the child. Similarly, Givertz and Segrin (2012) observed emerging adults with highly controlling, overinvolved parents also reported lower levels of perceived autonomy.

Overparenting is also associated with higher rates of maladaptive child behaviors including attention- deficit/ hyperactivity problems, conduct issues, and clinical depression (Gere et al. 2012). The consequences of overparenting may harm the quality of a child's interactions with peers and other social relationships (Schiffrin et al. 2014; Spokas and Heimberg 2009). For instance, Georgiou (2008) reported when parents were excessively involved, demonstrated high limit setting, and were overly protective, their children were bullied at more extreme levels and reported greater levels of anxiety. Overparenting also seems to be associated with greater proportions of child health problems, medication usage, and substance abuse (Cui et al. 2018a; LeMoyne and Buchanan 2011). Despite the growing evidence of a link between overparenting and maladaptive child development, an area that is only beginning to develop in our understanding relates to which demographic characteristics (i.e., age, ethnic group, socioeconomic status, gender) may influence rates of overparenting (Kouros et al. 2017). Some research indicates the child's gender could influence overparenting (Padilla-Walker and Nelson 2012; Schiffrin and Liss 2017). For instance, Kouros et al. (2017) suggested higher levels of overparenting behaviors predicted lower levels of well-being and hopefulness in college-aged female children and proposed this may be due to "covert" messaging from parents that implied females are less capable than male children to make decisions, reflecting the low levels of autonomy support and higher levels of parental authority over decision-making present in prior overparenting investigations (Segrin et al. 2012). Despite the finding of a relation between child gender and overparenting reported by Kouros et al. (2017), the link between overparenting and child gender is relatively inconsistent (Darlow et al. 2017). For example, in an examination of the relation between college student adjustment and overparenting, Burke et al. (2018) indicated no meaningful differences in the levels of overparenting across male and female college students. Similar investigations into young adult samples indicate comparable results, with no statistically meaningful association between overparenting and child gender (Bradley-Geist and Olson-Buchanan 2014; Cui et al. 2018b; LeMoyne and Buchanan 2011).

Despite the lack of demonstrated association between child gender and overparenting, research exploring the relations between child gender and factors commonly associated with overparenting are more developed, suggesting a stronger relation between child gender and rates of these related factors (Padilla-Walker and Nelson 2012; Segrin et al. 2013). For instance, research examining parental monitoring and parental limit setting (e.g., curfews, social media monitoring) indicate child gender does influence levels of these parental behaviors (Padilla-Walker and Nelson 2012) with female children generally reporting greater rates of parental monitoring and/or involvement (Klevens and Hall 2014). Further, Padilla-Walker and Nelson (2012) found female children reported higher levels of parental warmth and involvement than males, paralleling findings of Bradley-Geist and Olson-Buchanan (2014) who uncovered significantly higher levels of parental involvement for female children. In the overparenting literature, female children also had more opportunities for autonomy development than male children. Specifically, research suggests parents tend to facilitate greater levels of decisionmaking skills, problem solving ability, and/or independence in female children (Kouros et al. 2017; Kristjánsson and Sigfúsdóttir 2009; Padilla-Walker and Nelson 2012).

Other factors related to overparenting seem to be less influenced by child gender (Endendijk et al. 2016). For example, aversion to physical (i.e., bullies or strangers) or natural dangers (i.e., wild animals) has been positively associated with overparenting (Gagnon and Garst 2019). However, child gender does not seem to influence rates of parental risk aversion, with research indicating no meaningful associations between child gender and levels of fear or risk aversion (Newman-Kingery et al. 2012). Similar effects have been found between the provision of supportive/warm parental behaviors and child gender. In a study of young-adults, Scharf and Rousseau (2017) indicated that neither paternal or maternal reports of affect management were associated with child gender. The lack of influence of child gender on the provision of these happiness-facilitating parental behaviors parallels the null effects associated with psychologically controlling behaviors. Specifically, psychological control appears to reflect the opposite of affect management, where a parent withdraws warmth and support to improve, manipulate, or adjust a child's behavior (Soenens et al. 2007). In a meta-analysis exploring the relations between parental and child behaviors, Endendijk et al. (2016) noted neither parental or child gender meaningfully influenced the provision of autonomy supportive or psychologically controlling behaviors. The aggregate of literature suggests either no relation between child gender and parental overparenting behaviors, or when a relation is present, the manifestation of these parental behaviors skew towards female children, with "good" outcomes typically occurring only for male children (Endendijk et al. 2016; Kouros et al. 2017; Padilla-Walker and Nelson 2012; Rousseau and Scharf 2015).

In the few instances where overparenting has been studied in a population other than emerging adults (Gagnon 2019; Gagnon and Garst 2019; Hong et al. 2015; Janssen 2015), the results tend to parallel studies examining emerging adult children, suggesting although there are likely developmental differences in these populations, the measurement and provision of these behaviors remain from early childhood through emerging adulthood. For example, Gagnon and Garst's (2019) finding that overparents displayed excessive problem-solving on behalf of their 8-17 year old children mirrors Padilla-Walker and Nelson's (2012) finding of unnecessary problem-solving among parents of 18-29 year old children. Similarly, Hong et al. (2015) finding of a relation between perceptions of overparenting and parental monitoring (i.e., as parental monitoring increased, so did perceptions of overparenting) among youth in grades K-12 echoes Schiffrin and Liss's (2017) recognition of parental monitoring as a dimension of overparenting for emerging adult children.

While the influence of overparenting has been demonstrated in higher-education settings (Kwon et al. 2016), understanding how overparenting may influence parental decisions regarding their child's involvement in OST experiences may shed light on overparenting within nonacademic contexts such as after-school programs, sports, day and overnight camps, faith-based programs, and other community-based programs. Such an understanding is important because children spend approximately 35% of their daily life in an OST setting [i.e., based on 6.4 h spent in school (National Center for Education Statistics 2008) and 9h asleep (Centers for Disease Control 2018)]. Reflecting on the study of overparenting within college settings, LeMoyne and Buchanan (2011) stressed "while helicopter parenting is a phenomenon popularly associated with college students, it is not a practice that begins in college" (p. 405). Although scholars have noted the need to study overparenting outside of college settings, very few studies have examined the influence of overparenting on experiences within OST contexts (Gagnon 2019; Janssen 2015). Given limited evidence describing the emergence, prevalence, and contributing factors to OST-related overparenting, and the corresponding recognition among scholars that overparenting likely influences children prior to emerging adulthood (Gagnon and Garst 2019; Lemoyne and Buchanan 2011; Segrin et al. 2015), deficits remain in our understanding of overparenting within OST settings.

The study of overparenting is primarily confined to emerging adults and their parents. As such, in the current study we examine overparenting in a primarily adolescent sample (i.e., children ages 11–17). First, we assessed the relation between overparenting and its commonly related factors where we hypothesized overparenting will have a positive direct effect on affect management (H1a), parental monitoring (H1b), parental digital limit setting (H1c), psychological control (H1d), and risk aversion (H1e). In contrast, we hypothesized overparenting will have a negative direct effect on autonomy granting (H1f). Second, we examined the direct effect of child gender on overparenting and some of its commonly associated factors. Specifically, we hypothesized child gender would have no effect on affect management (H2a), psychological control (H2e), and risk aversion (H2f). Conversely, we hypothesized child gender will have a positive direct effect on parental monitoring (H2b), parental digital monitoring (H2c), overparenting (H2d), and autonomy-support (H2g), with parents of females reporting higher levels of each of these constructs.

Method

Participants

Study participants were 169 parents of children attending a one-week university-based summer camp. Parent respondents were primarily female (82.8%) and white (75.6%), with the remainder of the sample indicating either Black/ African American (16.1%), Asian origin (4.8%), Hispanic/ Latino (2.4%), or multiple race (1.2%). Parents reported relatively higher levels of education with 51.4% reported a graduate degree (e.g., masters or doctorate level), 35.5% reporting a four-year undergraduate degree, 10.6% reported some college, a technical degree, or certification, and 2.4% reported a high school diploma or less. Campers in this study, about whom parents were responding, were nearly evenly split by gender, with 85 females (50.9%) and 84 males (49.7%). Campers were an average of 15.49 years of age (SD = 1.12; range = 11–17 years) and primarily consisted of 14-17 year olds (93.6%). Similar to parents, campers were primarily white (72%), with the remainder identified as either Black/African American (16.7%), Asian origin (4.2%), Hispanic/Latino (4.2%), or multiple race (2.4%).

Procedure

The sampling approach used in this study reflected a purposive and convenience technique. The sampling approach was purposive in that parents whose early adolescent children were participating in an OST experience were specifically targeted based on the relevancy of context and all responses that could be readily collected from these parents were used (Yin 2016). Participants were recruited from a

university-based residential summer camp in the southeast United States. In the current study, the eight one-week summer camp sessions were designed as a pre-collegiate experience, providing campers with the opportunity to develop and/or explore potential academic majors. Specifically, campers attend this six-day camp as an introduction to university life where they engage in lab-based classroom activities as well as traditional residential summer camp programs. Parents of campers were recruited for the study through an online Qualtrics web-based questionnaire email, seven days after the completion of their child's camp experience. Parents who did not complete the questionnaire after the initial email were sent a reminder seven days later encouraging them to participate in the study. An entry to a raffle for one of three \$100 gift cards was provided to incentivize parental participation. Of a possible 613 parental respondents, 184 responded to the questionnaire, indicating a 30.01% response rate. As noted in greater detail in the data analysis section below, 15 respondents were removed from the sample after data processing. Prior to data collection, university institutional review board approval was obtained for the study procedures, and respondents provided their informed consent.

Measures

The initial seven-factor 27-item scale is described below. Prior to hypothesis testing, the measures utilized in the current study were examined through a confirmatory factor analysis (CFA). In some areas the previously validated measures exhibited poorer fit than in prior studies, requiring modification of factors and/or removal of items. This process is described in further detail in the proceeding data analyses and results sections. Final descriptive statistics of factors included in the study are provided in Table 1 and correlations between factors are provided in Table 2. Prior to responding to the measures described below, parents were provided with the following prompt: Many factors influence whether or not parents will allow their child(ren) to participate in activities like . . . , and we are interested in learning more about your perspectives as a parent. The following questions will help us understand factors that influence the types of opportunities you support for your child. There are no right or wrong answers—we just want to learn more about your perspectives.

Affect management

disagree) to 5 (strongly agree) with higher scores representing higher levels of parental support for their children. While Segrin et al. (2012) did not provide reliability levels nor did they conduct a CFA of their measures, we were able to calculate Cronbach's Alpha using factor loadings provided in their study ($\alpha = 0.806$). In the current study, affect management was reduced to a three-item measure and modified to a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), to address issues related to negative skew and narrow variance (e.g., floor and ceiling effects) established in prior camp-based overparenting research (Gagnon 2019). The three-item scale utilized in the current study exhibited an acceptable level of reliability ($\alpha = 0.798$).

Overparenting

Overparenting was measured with a 7-item scale based upon the work of Gagnon and Garst (2019). In their study, Gagnon and Garst (2019) treated overparenting as a secondorder construct comprised of three first-order factors, all with acceptable levels of reliability: (1) excessive control (e.g., I make important decisions for my child; $\alpha = 0.582$), (2) excessive support (e.g., When my child is engaged in an important task or project, I do some of it for them; $\alpha =$ 0.764) and (3) excessive problem solving (e.g., If something doesn't work out for my child, I do what I can to fix it; $\alpha =$ 0.755). Noting the high between-factor correlations between these factors in their model (e.g., r = 0.907), we modified their scale to reflect a first-order approach for the current study, mirroring that of Padilla-Walker and Nelson (2012) where all items reflected a single factor. In the current study, two-items indicated poor factor loadings (e.g., $\lambda \le 0.300$) and were dropped from the model, which led to a 5-item overparenting factor exhibiting an acceptable level of reliability ($\alpha = 0.841$), measured on a 1 (strongly disagree) to 7 (strongly agree) Likert scale, with higher scores denoting higher levels of overparenting. Further, the excessive control items were added to a separate parental control factor (described below).

Parental monitoring

To assess parental monitoring of child activities, the 3-item parental knowledge scale was adapted from Klevens and Hall (2014), which has exhibited acceptable reliability ($\alpha = 0.66$). In the current study, items were shifted from a child perspective to a parent perspective (e.g., when you and a parent/guardian were at home, how often did he or she know what you were doing to when my child isn't with me I know what they are doing). Further, to address potential narrow variance issues and to mirror formatting of other items comprising the measures in the current study, the

Table 2 Between factorcorrelations and evidence ofdiscriminant validity

Factor/Item	M^a (SD)	λ	α	AVE
Affect management			0.798	0.588
If I see that my child is feeling badly I try to cheer him/her up	6.207 (0.802)	0.919		
When times get tough, I talk to my child about looking on the bright side	6.281 (0.840)	0.584		
I say or do things to cheer my child up	6.079 (0.899)	0.761		
Overparenting			0.841	0.518
I minimize obstacles that my child may encounter	4.030 (1.500)	0.791		
I solve any crisis or problem my child might have	2.315 (1.165)	0.619		
When something goes wrong in my child's life, I jump in to take care of it	3.182 (1.384)	0.734		
If something doesn't work out for my child, I do what I can to fix it	3.725 (1.479)	0.769		
I try to control the risks that my child encounters	4.237 (1.464)	0.673		
Parental monitoring			0.789 ◊	0.652
When my child isn't with me I know what they are doing	5.170 (1.505)	0.803		
When my child isn't home I know where they are	5.804 (1.090)	0.813		
Digital limit setting			0.8710	0.774
I establish boundaries for my child's use of social media websites	5.274 (1.428)	0.831		
I limit how my child can use devices like smart phones and tablets	4.615 (1.618)	0.927		
Psychological control			0.790	0.490
I manage most important decisions in my child's life	4.091 (1.501)	0.591		
I tell my child that he/she needs my support to succeed in life.	2.676 (1.758)	0.741		
I remind my child how much I have done for them	3.141 (1.536)	0.772		
I tell my child that I feel hurt when my child doesn't follow my advice	3.085 (1.614)	0.683		
Risk aversion			0.7050	0.555
I think about risks that my child might face	5.622 (1.075)	0.636		
I remind my child to think about possible risks	5.780 (0.933)	0.840		
Autonomy support			0.841	0.578
I am receptive to things my child says	6.298 (0.675)	0.830		
I encourage my child to express their individual views and opinions	6.329 (0.752)	0.827		
I tolerate disagreements with my child	5.677 (1.126)	0.617		
I encourage independent thinking	6.500 (0.621)	0.749		

SD standard deviations; λ indicates standardized coefficient (factor loading, lambda); α indicates Cronbach Alpha; \Diamond indicates Spearman–Brown Coefficient utilized instead of Cronbach Alpha; *AVE* indicates average variance extracted

^a Means (M) ba	ised upon	Expectation	Maximization	(EM)	Values
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Factor	F1	F2	F3	F4	F5	F6	F7
F1. Affect management	0.766						
F2. Overparenting	0.302*	0.719					
F3. Parental monitoring	0.308*	0.214*	0.808				
F4. Digital limit setting	0.198*	0.191*	0.339*	0.880			
F5. Psychological control	0.259*	0.825*	0.203	0.293*	0.700		
F6. Risk aversion	0.471*	0.286*	0.335*	0.400*	0.189*	0.745	
F7. Autonomy support	0.216	-0.374*	0.050	-0.013	-0.378*	0.294*	0.760

Bold indicates \sqrt{AVE}

 $*p \le 0.05$

scale was modified from a 1 to 6 Likert measure to a 1 (*strongly disagree*) to 7 (*strongly agree*) Likert scale, with higher scores indicated higher levels of parental monitoring. One item within the scale (*My child has a firm curfew when away from home*) exhibited a poor factor loading in comparison to the other items ($\lambda = 0.493$) and was dropped from further analysis. The final 2-item scale exhibited acceptable levels of reliability in the current study (Spearman-Brown Coefficient = 0.793).

Digital limit setting

To assess parental digital limit setting, a 2-item scale was developed based on the work of Shin and Li (2017), who measured how parents monitor and/or limit their child's use of digital technology. In the current study, items were developed to reflect specific monitoring behaviors based on a parental perspective (e.g., *I establish boundaries for my child's use of social media websites* and *I limit how my child can use devices like smart phones and tablets*) and measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher scores representing higher levels of digital limit setting. The 2-item scale exhibited acceptable reliability in the current study (Spearman-Brown Coefficient = 0.874).

Parental control

Psychological control was initially assessed using 5items. Specifically, two items were utilized from the "excessive control" subscale ($\alpha = 0.582$) of Gagnon and Garst (2019) measured on a measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores representing higher levels of control. Sample questions include, "I manage most important decisions in my child's life" and "I tell my child they need my support to succeed in life." An additional three items from Margolies and Weintraub (1977) version of the Child's Report of Parental Behavior Inventory (CRPBI) [originally developed by Schaefer (1965)] were adapted from a child's perspective to a parent's perspective for the current study. For example, the original item "My parent breaks promises to me" was changed to "I don't trust my child again if they break a promise." The CRPBI items were originally measured on a 3-point Likert scale ranging from 1 (not like you) to 3 (a lot like you). In the current study parents responded on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores representing more parent psychological control over their child. One item (I don't trust my child again if they break a promise) within the scale exhibited poor factor loading in comparison to the other items ($\lambda = 0.433$) and was dropped from further analyses. The final 4-item scale exhibited an acceptable level of reliability in the current study ($\alpha = 0.790$).

Risk aversion

Risk aversion was assessed in the current study utilizing an amended 3-item version of the risk aversion subscale of Burke et al. (2018). In the original version, risk aversion was measured utilizing 6-items on a 1 (strongly disagree) to 5 (strongly agree) scale and exhibited an acceptable level of reliability ($\alpha = 0.77$). Sample items include "I think about risks that my child might face" and "I remind my child to think about possible risks." In the current study parents responded to a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree), with greater scores representing higher levels of parental risk aversion. However, one item in the present study (I believe my child is at risk of not being successful in the future), exhibited a poor factor loading in comparison to the other items ($\lambda = 0.064$) and was dropped from further analysis. In the current study the final 2-item scale demonstrated an acceptable level of reliability (Spearman-Brown Coefficient = 0.700).

Autonomy granting

Autonomy granting was assessed in the current study utilizing an adapted version of the 4-item "autonomy granting scale" developed by Kunz and Grych (2013). Sample items include "*I am receptive to things my child says*" and "*I encourage independent thinking*." In the initial study, Kunz and Grych measured these items on a 1 (Almost Always) to 5 (Almost Never) scale, where it demonstrated acceptable reliability for fathers ($\alpha = 0.88$) and mothers ($\alpha = 0.84$). For the current study, the scale was modified to a 1 (*strongly disagree*) to 7 (*strongly agree*), with greater scores representing higher levels of autonomy granting behavior. As with the findings of Kunz and Grych (2013), the scale exhibited acceptable levels of reliability in the current study ($\alpha = 0.841$).

Data Analyses

A series of power analyses were conducted to determine the minimum necessary sample size for the study. First, power analyses to determine the minimum sample size necessary for testing the study hypotheses indicated the sample of 169 respondents was sufficient for testing of the measurement and structural models [(average between factor r = 0.05, $\alpha = 0.05$, $\lambda = 59.31$) ($R^2 \ge 0.10$, $p \le 0.05$, $\lambda = 14.43$, $\alpha = 0.05$, two predictor variables)] (Cohen et al. 2003). Second, power analysis indicated a sample of 18 was sufficient to test model misfit in the confirmatory factor analysis ($\alpha = 0.05$, DF null model = 301; DF alternative model = 186, desired power = 0.800, null RMSEA = 0.100, alternative RMSEA = 0.051)

(Little 2013; Preacher and Coffman 2006). Third, the analysis indicated a sample of 50 was sufficient for testing of the structural model fit ($\alpha = 0.05$, DF = 186, desired power = 0.800, null RMSEA = 0.100, alternative RMSEA = 0.057) (Little 2013; Preacher and Coffman 2006). Preceding the testing of the measurement model and hypotheses, the data were screened for non-normality utilizing the Mahalanobis distance and chi-square distribution functions ($p \le 0.001$) in SPSS 24 software. The results of this analysis indicated 15 cases in the data set were contributing to multivariate nonnormality and were removed from further analyses, leading to a sample of 169 parental respondents. Next, the data were transferred from SPSS to EQS 6.3 software for analysis of the measurement model and hypotheses testing. Examination for multivariate kurtosis utilizing Mardia's coefficient (Mardia's \geq 6.00), indicated the data were non-normal (Mardia's = 36.528). As such, a robust estimation technique (i.e., Satorra-Bentler chi-square; $S/B\chi^2$) was applied to all proceeding analyses as this approach is less vulnerable to non-normality than maximum likelihood techniques (Bentler 2006). Parental responses to the questionnaire were then examined for systematic causes of missingness [Missing Completely At Random (MCAR), Missing Not At Random (MNAR)] utilizing Little's Test of MCAR in Byrne (2006) and Little (1988). The nonsignificant ($p \ge 0.001$) results of this analysis indicated the missing data were MCAR [$\gamma^2(260) = 269.925$, p = 0.0323]. As such, an Expectation Maximization (EM) technique was utilized to impute missing values (Bentler 2006). Due in part to the findings of Gagnon and Garst (2019), Cui et al. (2018b) and Kouros et al. (2017), who illustrated no statistically significant difference in paternal or maternal reports of parenting behaviors, paternal and maternal responses were not differentiated in the present study.

The validity, reliability, and psychometric properties of the measures were examined prior to hypothesis testing through confirmatory factor analysis (CFA) and corresponding statistics. Specifically, in both the CFA and proceeding structural equation model (SEM), the model fit was assessed using multiple criteria including: the non-normed fit index [N-NFI; preferred for smaller samples (such as in this study, N = 169) to assess fit by comparing the sample covariance matrix with the independent (null) model where values≥ 0.90 represent 'better' fit], the comparative fit index [CFI; to assess fit of the target model relative to the independent (null) model where values≥0.90 represent 'better' fit], and the Root-Mean-Square Error of Approximation [RMSEA; to assess model fit (and adjust for parsimony) relative to the covariance matrix where values ≤ 0.08 typically represent 'better' fit] (Brown 2015). In addition to assessing these indices, convergent validity of the factors was assessed by examining: factor loadings [λ ; where cutoffs ($\lambda \ge 0.500$) were determined based on their loadings on a particular factor as well as relative to other loadings within a factor)], Cronbach's Alpha (α ; to determine internal consistency of items within factors with values above $\alpha =$ 0.60), and average variance extracted scores (AVE) within each factor (Brown 2015; Byrne 2006). As three of the factors within the present study had only two-items after testing of the measurement model, Cronbach's Alpha (α) was an inappropriate measure of internal consistency due to the potential for α to over/underestimate reliability with two-item factors. Thus, the Spearman-Brown Coefficient was utilized as it has an increased level of precision with two-item factors (Eisinga et al. 2013). To establish the degree to which the seven identified factors measured distinct constructs, discriminant validity was assessed by examining between-factor correlations ($r \le 0.80$) for evidence of multi-collinearity (Kline 2016), and how correlations compared to the \sqrt{AVE} values to ensure the factors were extracting more variance than they were sharing with other factors in the scale (Bandalos 2018). The latent approach described in the current study (i.e., CFA and SEM) was utilized over other approaches (e.g., path modeling, multiple regression) as CFA and SEM do not assume perfect measurement of items and thus allows for a more nuanced examination of hypothesized relations. Specifically, traditional regression-based techniques require the use of composites (where the items comprising a factor are added and averaged into one factor) and assume that each item contributes equally and perfectly to the factor (e.g., $\lambda = 0.999$; $\alpha = 0.999$; Brown 2015; Gagnon et al. 2017). As indicated in prior overparenting studies, measurement issues are relatively normative (e.g., Segrin et al. 2012), illustrating the need for techniques utilizing latent approaches which incorporate and adjust for likely measurement error (e.g., Gagnon 2019; Luebbe et al. 2018).

The initial seven-factor 27-item scale indicated unacceptable model fit as indicated by the previously mentioned criteria: $[S/B\chi^2(301) = 550.9897, p \le .001, N-NFI = 0.814,$ CFI = 0.840, RMSEA = 0.072 (90%, CI 0.062-0.081)]. Review of the between-item covariance matrices and LaGrange Multiplier (LM) test statistic suggested five items were harming overall model fit due to potential measurement issues and/or factorial misalignment (Bentler 2006; Byrne 2006). Inspection of these items' factor loadings relative to others within the same factor and across the seven factors suggested these items did not adequately fit with their theorized construct (e.g., $\lambda = 0.064$ –.493). The LM test results also suggested three items within the overparenting factor were sharing substantial common variance. As such an alternative model was examined with the five poor performing items removed and the three overparenting items errors covaried, which indicated acceptable measurement model fit: $[S/B\chi^2(186) = 265.1796]$, $p \le 0.001$, N-NFI = 0.925, CFI = 0.940, RMSEA = 0.051 (90%, CI 0.036-0.064)].



Fig. 1 Structural Model of Results. * $p \le 0.05$; β indicates Beta (i.e., standardized regression coefficient); SE indicates Standard Error; Individual items, error terms, and covaried errors excluded for parsimony of presentation; Child gender is dummy coded with female = 0 and male = 1

Upon establishment of acceptable measurement model fit, the convergent validity of the final seven-factor 22-item scale was determined through a review of factor loadings (λ), reliability (α), and AVE levels. Across all factors (See Table 1), items indicated acceptable factor loadings ($\lambda \ge 0.500$) and reliability levels. In all but one factor, psychological control, factors exhibited acceptable levels of average variance extracted (AVE ≥ 0.500). Examination of the psychological control AVE level (0.490) indicated a level approaching acceptability; deeper inspection of factor loadings comprising this factor ($\lambda =$ 0.591 to 0.772) suggested the items were adequately reflected by the factor, as such the psychological control factor was retained. Discriminant validity was established through examination of between factor Pearson correlations (r) and \sqrt{AVE} levels (Table 2). In all cases but one, \sqrt{AVE} levels were higher than between factor correlations, with the correlation between overparenting and psychological control (r = 0.825; $\sqrt{AVE} =$ 0.719) approaching levels indicating multicollinearity between these factors (Kline 2016). However, similar levels of shared variance between these factors have been observed in prior studies of overparenting (e.g., Gagnon and Garst 2019). Thus, given the emerging evidence of acceptable model fit, convergent validity, and discriminant validity, we transitioned from analysis of the measurement properties of the scale to hypothesis testing through SEM.

Results

Prior to testing of the hypotheses, the model fit indices and corresponding statistics were inspected. This process indicated parental risk aversion, parental monitoring, and parental digital monitoring were also potentially sharing error variance. Given the conceptual overlap between these factors, their disturbance terms were covaried, which resulted in acceptable model fit: $[S/B\chi^2(213) = 327.2870, p \le 0.001,$ N-NFI = 0.898, CFI = 0.914, RMSEA = 0.057 (90%, CI 0.045-0.069)]. As noted earlier two primary groups of hypotheses were tested. In the first group (see also Fig. 1), we failed to reject H1a through H1f. Specifically, overparenting had a positive direct effect on affect management (H1a; $\beta = 0.292$, SE = 0.068, $p \le 0.001$), a positive direct effect on parental monitoring (H1b; $\beta = 0.245$, SE = .095, p = 0.05), a positive direct effect on digital limit setting (H1c; $\beta = .236$, SE = 0.142, p = 0.012), a positive direct effect on psychological control (H1d; $\beta = 0.833$, SE = 0.115, $p \le 0.001$), a positive direct effect on risk aversion (H1e; $\beta = 0.251$, SE = 0.081, p = 0.012), and a negative direct effect on autonomy granting behaviors (H1f; $\beta =$ -0.372, SE = 0.049, $p \le 0.001$).

In the second group of hypotheses (see also Fig. 1), we examined the direct effect of child gender on overparenting

and commonly associated factors (H2a-H2g). In H2a child gender was hypothesized to have no statistical effect on affect management. The results indicated a failure to reject H2a ($\beta = -0.010$, SE = 0.120, p = 0.450). We hypothesized child gender would have a positive direct effect on parental monitoring (H2b), digital limit setting (H2c), and overparenting (H2d) for female children. However, the results indicated no effect of child gender on parental monitoring (H2b; $\beta = -0.008$, SE = 0.125, p = 0.921), digital monitoring (H2c; $\beta = -0.071$, SE = 0.248, p =0.380), or overparenting (H2d; $\beta = -0.034$, SE = 0.176, p = 0.689). We also hypothesized child gender (H2e) would have no direct effect on psychological control, which the results indicated a failure to reject this hypothesis (H2e; $\beta = -0.118$, SE = 0.152, p = 0.065). Similarly, we failed to reject H2f, with no difference in parent reports of risk aversion dependent upon child gender ($\beta = -0.049$, SE = 0.141, p = 0.563). Finally, in H2g we hypothesized parents of females would report higher levels of autonomy granting behavior. However, the results suggest rejecting this hypothesis, as there was no statistical difference in parents reports of autonomy granting behavior due to the gender of the child ($\beta = 0.051$, SE = 0.088, p = 0.527).

Discussion

As noted earlier, the study of overparenting has been primarily confined to emerging adult college students and their parents. As such in the current study we examined the relation between overparenting and commonly associated factors to determine if, in a sample of parents of younger children ages 11-17, the same relations would be present. The preliminary support for our first set of hypotheses, (H1a-H1e), provides further evidence substantiating the extant literature regarding overparenting and its association with commonly related factors. Specifically, overparenting had a positive direct effect on affect management (H1a), which supports prior studies by Segrin et al. (2012, 2013). As overparenting scores increased, so did parent reports of affect management, suggesting that parents scoring higher in overparenting also provisioned greater rates of management of their child's emotional affect (i.e., facilitating feelings of happiness). Concurrent with Klevens and Hall (2014) and Padilla-Walker and Nelson (2012), overparenting had a positive direct effect on parental monitoring (H1b) and parental digital limit setting (H1c). Thus, parents who scored higher in overparenting were more likely to report higher parental monitoring and digital limit setting of their child. Overparenting also had a positive direct effect on psychological control (H1d), supporting the findings of Willoughby et al. (2015) in a younger sample of children. Consistent

with findings by Gagnon and Garst (2019), overparenting had a positive direct effect on risk aversion (H1e). Thus, parents who scored higher in overparenting tended to report greater rates of protecting their child from perceived risks such as academic failure, physical danger, and social harm. Also, as hypothesized, overparenting had a negative direct effect on autonomy granting (H1f), which parallels findings of Schiffrin et al. (2014). Parents scoring higher on overparenting were more likely to indicate they did not facilitate opportunities for their child to develop independence. This relation between overparenting and some previously established factors including affect management, parental monitoring, parental digital limit setting, psychological control, and risk aversion, as well as the negative association of overparenting and autonomy granting, is consistent with studies among adolescents and younger children (Gagnon 2019; Hong et al. 2015; Janssen 2015), providing further support for the potential effects of overparenting on children and their parents at least as early as adolescence. These effects were demonstrated as parents reflected on their decisions to involve their children in an OST experience, a context receiving relatively little attention within the overparenting literature (Garst and Gagnon 2015).

Our second set of hypotheses (i.e., H2a through H2f), examined the effect of child gender on overparenting and commonly related factors. First, we hypothesized gender would have no effect on some constructs, including affect management (H2a), psychological control (H2e), and risk aversion (H2f), and the study results indicated support of these hypotheses. Specifically, child gender had no effect on affect management score (H2a) or psychological control score (H2e) echoing the findings of Scharf and Rousseau (2017) and Endendijk et al. (2016). Additionally, parent reported risk aversion did not favor a child of either gender (H2f), supporting prior investigation by Newman-Kingery et al. (2012). Together, these findings suggest that within these dimensions (i.e., affect management, psychological control, and risk aversion), parents of adolescents may tend to demonstrate consistency in reporting regardless of child gender. In contrast to the proposed lack of child gender effect in H2a, H2e, and H2f, we hypothesized child gender would have a positive direct effect on parental monitoring (H2b), digital monitoring (H2c), overparenting (H2d), and autonomy-support (H2g), with parents of females reporting higher levels of each of these constructs. However, these hypotheses were not supported in the structural model. Specifically, no effect of child gender was found reported regarding autonomy granting (H2g) score; partially contrary to effects reported by Padilla-Walker and Nelson's (2012) finding of an association between child gender and guidance/advice, disclosure, and emotional support. Additionally, whereas Klevens and Hall (2014) found parents

reported higher levels of monitoring with female children, such a relation was not supported by this study (H2b). Our results are more consistent with Kerr et al. (2010) findings, which suggests child gender does not predict greater levels of parental monitoring. Further, in the present study no statistical influence of child gender on parental digital limit setting score was present (H2c), which partially contradicts the findings of Kristiánsson and Sigfúsdóttir (2009). Finally, child gender had no direct effect on overparenting score, contrary to the proposed hypothesis (H2d), but does parallel some prior research. For instance, Endendijk et al. (2016) conducted a meta-analysis on the relation between parental gender, child gender, and parental behaviors and found that neither parental gender nor child gender meaningfully influenced the provision of autonomy supportive or psychologically controlling behaviors.

The potential evidence of increasing prevalence of overparenting among parents of children and adolescents also deserves further attention (Gagnon 2019). As noted in Givertz and Segrin (2012), parents tend to present a more positive and developmentally appropriate report of their own parenting behaviors when compared to reports of their children. In the context of the current study, this may indicate parents engaging in maladaptive or excessive overparenting behaviors may have underreported these actions. To potentially mitigate this concern in future research, "dyads" of reporting from both parent and child perspectives may illustrate this differentiation and offers a promising research direction developing in overparenting research (Burke et al. 2018; Cui et al. 2019). Specifically, if parent and child dyads demonstrate differentiation in overparenting "scores" then further investigations would need a deeper examination of potential causes for differentiation in reporting from the parent and child perspectives. Conversely, if there are not statistical differences in reports of overparenting between parents and their children, then this may allow for greater efficiencies in overparenting research (e.g., only capturing data from one group). In the current study we examined overparenting among parents of early adolescents who decided to involve their children in an OST experience, yet many other OST programs and contexts may provide lenses through which the influence of overparenting behaviors on emerging adolescents may be more fully understood, including online social settings, recreation and leisure contexts, and other non-academic settings. Additionally, given the evidence of how many parents interact and communicate with youth program practitioners and professionals, a deeper understanding of overparenting may inform parent engagement practices particularly when parents display overparenting behaviors (Garst and Gagnon 2015). Further, given the relation between overparenting,

parent anxiety and risk aversion, interventions that help parents manage these anxieties and fears may reduce the expression and/or consequences of overparenting (Gagnon and Garst 2019; Hong et al. 2015; Segrin et al. 2013).

Recognizing overparenting may influence youth from early adolescence through adulthood, the need for longitudinal studies examining how overparenting may evolve over time, as well as factors that may inhibit the negative influences of overparenting as a young person develops remains needed. Overparenting may, for example, evolve from separation anxiety associated with early childhood to a broader range of excessive parental behaviors in early adolescence. The overparenting literature would also benefit from research involving more diverse (e.g., socioeconomic status, parent gender) populations of parents. Most overparenting research, to include this study, has been conducted with middle-to-upper income families with little investigation into the influence of family socioeconomic status (SES) on overparenting. Some overparenting investigations (see Somers and Settle 2010) suggest that despite prevailing conventional wisdom, overparenting is not limited to middle- and upper-income families (Locke et al. 2016; Schiffrin and Liss 2017; Segrin et al. 2015).

To date, most overparenting research has been conducted primarily with mothers, illustrating an additional need for research exploring potential paternal differentiation in the manifestation of overparenting (Gagnon and Garst 2019). Furthermore, the presumption of a "traditional nuclear" family may unduly cloud our understanding of how and why overparenting occurs. Future studies exploring differing child, parent, and family characteristics that may influence overparenting, such as child order, ratio of child to parent age, parent gender, parent education, and family structure may illustrate factors which compound the influence or emergence of overparenting. For example, although some research suggests parental gender does not meaningfully influence reports of overparenting, there remains a possibility of unique differences in how overparenting behaviors manifest dependent on parental gender given the relatively recent emergence of the field (Cui et al. 2018b; Padilla-Walker and Nelson 2012).

Future research should also evaluate the range of behaviors currently examined to determine what may be missing from and/or unique to overparenting. This study reflected the approach of many prior explorations where overparenting was operationalized as "well-intended" behaviors taken to an excessive degree. This of course begs the question, are there behaviors that are exclusive to overparenting and not just normative parenting behaviors taken to an excessive degree? For instance, in a physically abusive parenting style, when physical abuse is removed, the style no longer is "physically abusive." Thus, are there behaviors within overparenting that, when absent, lead to the style being no longer overparenting? Such investigations may help scholars further refine overparenting as an independent construct. Additionally, as refinement of the overparenting construct continues, an exploration of thresholds for overparenting remains necessary, which could allow for the dichotomization of parental behaviors as reflective of "low" and "high" levels of overparenting. These thresholds may have also descriptive value for understanding for who overparenting is "high" or "low" for, potentially leading towards the development of interventions for both parents and children. "High" levels of overparenting have been suggested in some studies [e.g., Kouros et al. (2017) and Rousseau and Scharf's (2015) mention of the association of high levels of overparenting with other targeted constructs], yet specific numeric values differentiating low and high overparenting behaviors have not been identified (i.e., indexes). Such thresholds have been established in other measures of parental behaviors and beliefs, suggesting another possible avenue of overparenting research development (Wilhelm et al. 2005).

The need for additional investigation also extends to the influence of overparenting (specifically, different forms of parental control) on adolescent maladaptive behaviors such as substance abuse (e.g., alcohol, opiates). The relation between overparenting and psychological control in this study, as well as literature examining psychological control and adverse outcomes for children [described by Barber (1996) as "a consistently negative and inhibiting experience for children" (p. 3314)], suggests overparenting may contribute to increased harmful substance use among adolescents who report lower levels of control and autonomy in their lives and who also feel their parents are manipulative and overly intrusive. The association between substance abuse and having excessively protective parents was also suggested by Ungar (2009), particularly among young adult children from socioeconomically advantaged homes. Considering the suggested link between overparenting and prescription pill abuse among adult children (LeMoyne and Buchanan 2011), a more efficacious approach may be to design early adolescent interventions to inhibit the negative influence of overparenting while children are young (Cui et al. 2018a).

Finally, further study is needed to better understand the construction of overparenting, recognized as somewhat incongruent (Gagnon 2019), to potentially move towards a unifying model and associated measurement approach. For example, while some researchers have proposed overparenting is unidimensional (Padilla-Walker and Nelson 2012; Schiffrin et al. 2019), others view overparenting as comprised of multiple constructs (Gagnon and Garst 2019;

Segrin et al. 2012). Differences in how overparenting has been conceptualized has resulted in a variety of overparenting measures, including (for example): the Overparenting Scale (Segrin et al. 2012), the Helicopter Parenting Scale (Padilla-Walker and Nelson 2012); the Parental Anxiety associated with Outdoor Experiences and Overparenting scale (PAOEO; Gagnon and Garst 2019), and the Consolidated Helicopter Parenting Scale (Schiffrin et al. 2019). Development and testing of a comprehensive model of overparenting, across early adolescent, adolescent, and emerging adult populations, may illumine area where current overparenting models align, overlap, or are exclusive.

Limitations

Some study limitations are acknowledged. First, this study incorporated a cross-sectional design in which data were collected from parents at the end of their child's participation in an OST program. Cross-sectional designs have inherent weaknesses in that a one-time measure may not fully capture the attitudes or behaviors or the population being studied (i.e., parents may have perspectives that were not captured through this study's one-time post-program measure). Second, this study involved a small, affluent, and homogenous sample of parents, both in terms of their educational attainment (86.9% had a bachelor's degree or greater) and race (i.e., 75.6% White). Although the sample demographics in this study are consistent with similar studies of camp parents (e.g., Garst and Gagnon 2016), if data were collected from a larger, more demographically diverse sample the results may have changed. Intentional representative sampling within or across a broader sample of OST programs may provide groups of more racially, ethnically, and culturally diverse samples to inform future overparenting research, reflecting Kouros et al. (2017) call for more exploration to understand how these differences may explain potential divergence in the manifestation and consequences of overparenting behaviors. The sample of 169 was also relatively small for a quantitative study, while sufficient power was indicated, the proposed minimal effect sizes were relatively large, increasing the potential for Type 1 error. Again, a larger and more diverse sample would likely provide a richer understanding of overparenting and its related constructs.

As understanding of the effects of overparenting among emerging adolescents and their parents continues to advance, studies such as the current investigation are critical for illuminating how overparenting manifests in younger children as well as the possible role of gender on overparenting. With many children spending more than a third of their young lives in an OST context, this study contributes to our understanding of parental views of overparenting contextualized by parents through the lens of their child's OST experiences settings such as university-based summer camps, paving the way for more research into the myriad of OST contexts in which children work, play, and learn.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval This research was approved by the Institutional Review Board (IRB) at the University where it was conducted, which has Federal-wide Assurance from the Office of Human Research Protection (OHRP). Thus, all procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and 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. No identifying information was obtained during data collection.

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