



Identifying Correlates of Demanding and Responsive Features in Helicopter and Overprotective Parenting

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Accepted: 29 July 2024 / Published online: 10 August 2024
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Abstract

The terms helicopter and overprotective parenting (HP, OP) have been used interchangeably, but there could be unexamined differences, including differences in correlations with other aspects of parenting and social-contextual conditions. In this study, we explored the factor structure of two commonly used measures of HP and OP in a sample of 701 Australian parents of adolescents (aged 16 – 19 years) and compared the correlations of the emergent factors with measures of parenting behaviors, mental health, and parenting pressures. Two factors were found that differentiated 13 items that referred to generally controlling and demanding OP behaviors (*Demanding OP*) from 8 items that referred to parenting under conditions of child difficulty suggesting a response to the child needs (*Responsive OP*). Before adjustment (i.e., zero-order correlations), but especially after adjusting for scores on the other factor (i.e., partial correlations), Demanding OP was associated with less positive (e.g., autonomy support) and more negative (e.g., control) parenting behaviors, as well as higher scores on parent anxiety, child anxiety and antisocial behavior, parental burnout, social comparison to parents on social media, and job/financial pressures. After adjustment for Demanding OP, Responsive OP aligned with positive parenting and more enjoyment of parenting, but was not associated with burnout or parent anxiety, and had little association with child mental health. Yet, Responsive OP was associated with more pressure to be an ideal parent. Both Demanding and Responsive OP were associated with more overvaluation of the child.

Keywords Overprotective parenting · Helicopter parenting · Parenting behaviours · Parent and child mental health · Exploratory factor analysis

Highlights

- Two factors emerged from an exploratory factor analysis of measures of helicopter parenting (HP) and overprotective parenting (OP).
- Demanding OP had high loadings for items referring to parental overinvolvement or autonomy restriction in general.
- Responsive OP had high loadings for items that referred to parenting in response to child distress or difficulty.
- Demanding OP and Responsive OP correlated positively with each other, but correlated differently to measures of parenting and parent and child mental health.
- The findings suggest Demanding OP is a more negative feature of parenting than Responsive OP.

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Parents face multiple challenges as their children progress through adolescence and into adulthood. This challenge involves finding ways to balance their role as protectors and guides of youth's development with the provision of support for their developing self-reliance and self-direction (Soenens et al., 2019). Related to this challenge, studies of helicopter parenting (HP; Hwang & Jung, 2022; Padilla-Walker et al., 2021), as well as studies of overprotective, overinvolved or overparenting (OP; Flamant et al., 2022; Segrin et al., 2020), describe how parents can tip over into

excessive involvement, risk aversion, and anticipatory problem solving with regards to their adolescent or young adult children. In fact, the terms HP and OP have been used interchangeably in the popular media and some research literature despite using different measures (including whether measures are designed for parents or youth) (e.g., Perez et al., 2021; Trbovich et al., 2021). Moreover, past research on HP and OP reveals that these complex behaviors could be contextually motivated. For instance, the effects of overprotective parenting on youth may differ when considering the academic domain compared to the domain of safety and security (Cui et al., 2022). Thus, before moving forward with research on how HP and OP relate to youth's developmental progress, research is needed that scrutinizes how HP and OP interrelate, whether they similarly converge (or diverge) with other important parenting practices, and how they relate to a range of other pressures that parents can face today.

Definitions of Helicopter and Overprotective Parenting: Similarities and Differences

In the last 15 years, there has been a surge of research on HP (e.g., Hesse et al., 2018; Kouros et al., 2017; Turner et al., 2020). In this research, the term HP is used to refer to parental behaviors that suggest overprotection and portray overinvolvement and overcontrol of adolescent (or emerging/young adult) children (see Supplemental Table). Definitions of HP have referred to parents' overinvestment in their children's goals and advancing their achievements (Cline & Fay, 1990), as parents hovering over their children (Buchanan & LeMoyne, 2020; Lindke & Oppenheimer, 2022) in ways that restrict autonomy, undermine competence, and create a general sense of powerlessness in young adult children (Cook, 2020), and as parents behaving in ways that limit their emerging adult children's autonomy (Padilla-Walker & Nelson, 2012), are overprotective (Gomes and Deuling 2019; Hwang & Jung, 2022; Kwon et al., 2016), or as parents' micromanagement of their children's lives (LeMoyne & Buchanan, 2011).

Similar to HP, OP has been defined as parenting behaviors that are excessively protective considering the child's developmental level, focusing on behaviors that are in opposition to supporting the development of autonomy, agency, independence, or critical decision-making skills representative of what would be expected for children of a given age (for a review see Cui et al., 2022; see Supplemental Table). Much of the research on OP has been founded in self-determination theory (SDT; Chevrier et al., 2023; Ryan & Deci, 2000). SDT identifies autonomy as a core psychological human need, and OP as representing behaviors that can undermine youth's psychological need

satisfaction, effectively producing developmental instability for affected children. Other definitions of OP identify specific sets of parental behaviors that can suggest overprotection of youth. For example, Segrin et al. (2012) identified four facets of OP: anticipatory problem solving, over-provisioning of advice and affect management, lack of support for child self-direction, and excessive tangible assistance. Other definitions of OP outline intrusive and overcontrolling behaviors of parents (Givertz & Segrin, 2014; Leung, 2021; Trbovich et al., 2021), excessive shielding and overprotection (Chevrier et al., 2023; Zheng et al., 2019); excessive guidance, support and problem solving (Gagnon et al., 2020); exceeding the actual needs of the adolescent (Brenning et al., 2017); and excessive advice, problem solving and provision of abundant and unnecessary tangible assistance (Segrin et al., 2015).

These and other definitions suggest that HP and OP converge in many ways. Each concept considers the importance of autonomy development in adolescents and emerging adults, the possibility that some parents have trouble supporting autonomy and can become overprotective and autonomy restrictive, and the potential negative impacts of control and overprotection on the optimal development of adolescents and emerging adults. They especially converge by arguing that HP and OP can undermine youth's autonomy and agency development. In addition, HP seems to have some foundation in research on OP, with some studies overtly stating that HP is a particular expression of OP (e.g., Gagnon, 2019; Leung & Shek, 2018; Segrin et al., 2012; Vigdal & Brønneck, 2022).

However, despite the apparent convergence of HP and OP conceptually, the items on two widely used measures of HP and OP, namely the Helicopter Parenting Instrument (HPI; Odenweller et al., 2014) and the Multidimensional Overprotective Parenting Scale (S-MOPS; Chevrier et al., 2023), differ in their content in ways that reflect more or less attention to when and how parents may be overinvolved and undermine youth's autonomy. Thus, they seem to differ in their attention to context. In particular, many items on the HPI directly refer to assistance with managing problems, stressful events, and management of youth's specific activities. In contrast, items on the S-MOPS are more general, appearing to tap an unspecified, decontextualized pattern of controlling and coercive behaviors of parents. This difference in item content can change construct meaning (e.g., Ziegler et al., 2013), and adding such pieces of information to items could link to subtle differences in how HP and OP have been defined in some past work. For example, HP has been described as parenting practices that are controlling and restricting but as also involving warmth and support via being responsive to youth's needs for assistance and emotional or practical

support (Luebke et al., 2018; Padilla-Walker & Nelson, 2012). In contrast, all OP definitions we found generally focus on the excessive restrictions and overprotection that occur, while keeping this distinct from parental warmth and support (Chevrier et al., 2023; Gagnon et al., 2020). Such subtle definitional and item differences may explain some of the findings among studies of HP compared to OP. For example, when comparing research findings across multiple studies, HP and OP have had opposite associations with the same parenting practices and youth behaviors or symptoms (Bradley-Geist & Olson-Buchanan, 2014; Earle & LaBrie, 2016; Kouros et al., 2017; Reed et al., 2016).

The Possible Divergence of Associations of HP and OP with Other Measures

To examine covariation and divergence of HP and OP measures, a first step can be to apply factor analysis to identify items that best represent underlying concepts or themes. After identifying the factors, their correlation with each other can be examined to assess convergence or divergence, but it is also relevant to conduct further analyses to embed the factors in a nomological net, which can provide very useful information regarding convergence or divergence of measures (Ziegler et al., 2013). These analyses would involve correlating the factors that emerge from the HP and OP items with a diverse set of other measures. For this study, possible measures to construct the nomological net were drawn from those typically studied in research on HP and OP (other parenting behaviors and youth emotional adjustment), but also included measures of parents' adjustment, attitudes towards parenting, beliefs about the child, and perceived pressures from outside the family that could play roles in parenting and child development. Because HP and OP items seemed to differ based on the attention to context in some but not all items, ecological systems theory (Bronfenbrenner & Morris, 2006) was drawn upon to identify multilevel contextual measures to include in the nomological net. Ecological systems theory points to the social influences on human behavior that are located at multiple contextual levels, from the individual to the macrosystem (e.g., nationwide pressures). This theory views behavior and its development as founded in a complex system of relationships affected by multiple levels of the surrounding environment, including the immediate family and the perceived pressures on that family, accurately reflecting their dynamic nature (Hayes et al., 2017). Although this theory is most often applied when considering the many influences at play when explaining children's developmental pathways, it is also relevant for identifying factors that could explain parents' behavior, helping to outline the multiple circumstances within the parent, within

the family, and from outside the family that could explain variations in parenting practices.

Parental Behaviors and Practices

Numerous studies report associations of HP and OP with other parenting behaviors. HP (mostly reported by university students about their parents) has tended to be positively associated with autonomy-limiting behaviors (Hesse et al., 2018; Kouros et al., 2017; Turner et al., 2020) and with psychological control, which is defined as psychological manipulation used by parents to gain adolescent compliance and closeness (Padilla-Walker et al., 2021; Padilla-Walker & Nelson, 2012). For example, Padilla-Walker and Nelson (2012) found that HP was positively associated with parental involvement, and parental guidance, disclosure, and emotional support, but not significantly associated with parental acceptance and warmth. Other studies have also reported no significant association of HP with parental warmth (Rote et al., 2020). Findings for OP have been similar to the findings for HP, with a negative association of OP with parental autonomy (Chevrier et al., 2023; Francis & Manley, 2022), and a positive association of OP with psychological control (Chevrier et al., 2023). However, the findings for OP as related to parental warmth reveal some divergence with findings for HP. In two studies, OP was negatively associated with parental warmth in both parents from child self-report measures (McKinney et al., 2019).

Studies of moderators or profiles of parents also reveal how parental warmth may interface with HP. In one study, parental warmth was found to moderate the association of HP with emerging adult adjustment, with HP associated with less risky behavior for youth who reported their mothers exhibited high warmth, whereas HP was associated with more risky behavior when mothers were low in warmth (Nelson et al., 2015). In another study of emerging adults (Padilla-Walker et al., 2021), profiles of parents were created from child-report of HP, parental warmth and psychological control. Most parents clustered into two HP profiles: *warm helicopters* (77% mothers, 50% fathers) and *autonomy limiting helicopters* (20% mothers, 12% fathers). Warm helicopters were average in HP and above average in warmth, but low in control (i.e., autonomy restriction). *Autonomy limiting helicopters* were also average in HP but lower in warmth and higher in control.

The above research illustrates that a moderate level of HP is common in parents and when it does occur, it tends to co-occur with positive parenting, such as youth perceiving parents as supportive. Nevertheless, HP has also been associated with more parental autonomy restriction and is sometimes not associated with warmth. OP also correlates with more parental autonomy restriction, whereas findings

for the relation with positive parenting practices, such as warmth, suggest a negative association. Importantly, a potentially problematic assumption in the literature has been the tendency to assume that HP and OP (as well as other measures that reflect aspects of parental control, such as psychological control; Barber, 1996), are measuring the same underlying parenting practice. This assumption has been reflected in existing systematic reviews. For example, in one systematic review of 74 studies referred to as a review of overparenting, Cui et al. (2022) included studies on helicopter parenting, overparenting, overprotection, overinvolvement, overcontrol and intensive parenting, resulting in findings that mix results for HP and OP. A similar decision was also found in a review of studies referred to as HP, which included the search terms over-protective, helicopter, and controlling parenting (Vigdal & Brønnick, 2022). Taken together, the above findings suggest that multiple aspects of positive and negative parenting are important aspects of a nomological net to consider when examining the convergence and divergence of factors that emerge from measures of HP and OP.

Youth's Anxiety and Antisocial Behavior

Youth's adjustment may also be important when considering the possible divergence of factors that emerge from measures of HP and OP. As implied by conceptualizations of HP and OP as overly protective and coercive and developmentally mismatched to youth's needs, research has found that HP and OP are associated with youth's poorer mental health. Several studies have found that HP covaries with youth's higher levels of anxiety and stress (Cui et al., 2019; Hong & Cui, 2020; Schiffrin et al., 2019) and these findings are mirrored in studies of youth's experience of OP (Leung, 2020; Mathijs et al., 2024; Trbovich et al., 2021; Van Petegem, et al., 2022). In one youth report study, mothers higher in HP had emerging adult children higher in anxiety (Schiffrin et al., 2019), with similar associations found in a study of fathers' OP (Leung, 2020). In a similar way, studies have reported that parents higher in HP (Cook, 2020; Cui et al., 2019; Hong & Cui, 2020; Moilanen & Manuel, 2019; Turner et al., 2020; Schiffrin et al., 2019) or OP (Chevrier et al., 2023; Leung, 2020; Van Petegem et al., 2020) have adolescent or emerging adult children who report more depressive symptoms. HP and OP have also been investigated as correlates of youth's life satisfaction and self-esteem, with studies reporting negative correlations with these measures (Chevrier et al., 2023; Cui et al., 2019; Garcia et al., 2022; Hong & Cui, 2020). However, the associations of HP with youth's poorer adjustment seem smaller and less consistent than are associations with OP. Indeed, there is some research, especially when HP is considered alongside other parenting practices, that finds no

significant relationship between HP and youth's adjustment (e.g., Howard et al., 2022; Padilla-Walker et al., 2021).

Parent Anxiety, Parental Attitudes about Parenting, and Systemic Pressures on Parents and Parenting

To consider whether context might explain convergence or divergence of factors that emerge from measures of HP and OP, the nomological net needed to include multiple social-contextual influences that could affect parenting behaviors, such as parents' own emotional adjustment and attitudes towards parenting, as well as pressures on family and other roles. Given that there has been no previous research that addressed associations of parental attitudes and pressures on parents as related to the HP or OP, we measured numerous potential correlates including parental anxiety, and parents' attitudes towards parenting (feelings of parental burnout and enjoyment of parenting) and beliefs about their children. For the latter, we included a measure of parental over-valuation of the child, which is a parent's belief that their child is special and more entitled to attention and success than other children (Brummelman et al., 2015). Moving to other ecological levels, we measured parents' perceived pressures from other parents, the media, and society to be an ideal or perfect parent (Lamprianidou et al., 2024), parents' tendency to compare their parenting to other parents on social media, and parents' perceived job demands (e.g., long work hours) and family financial scarcity.

Comparison of HP and OP: Age and Reporter

Although it would have been useful to make direct comparisons of the research on HP versus OP, there are two main methodological issues that made this difficult. First, there are differences in the measures of HP and OP, with items not only differing in their specific content but also in whether they were designed for parent or youth report. OP is more often measured by parent-report than is HP, which is almost always measured by youth-report. Second, the ages of offspring considered in HP relative to the OP research tends to differ as well, with HP research often being conducted with university students or young adults, whereas OP research is more often studied with slightly younger age groups (i.e., children and adolescents, e.g., Edwards et al., 2010; Janssens et al., 2009).

In the handful of previous studies that have jointly considered HP and OP, only weak positive associations were reported between the measures ($r = 0.23$ and 0.22 ; Segrin et al., 2015, 2020). It is unclear, however, whether these weak associations were due to differences in the content of the scales or to the use of different informants, as HP was reported by emerging adults and OP was reported by

parents. Thus, to begin to untangle the role of reporter from the role of item content on the conceptualization of HP relative to OP, we investigated in the present study the factor structure when HP and OP items were completed by parents.

Although there is crossover in the age groups studied, research on HP tends to consider older age groups than research on OP. Most studies of HP we located (e.g., Bradley-Geist & Olson-Buchanan, 2014; Kwon et al., 2016; van Ingen et al., 2015) investigated university students, often exploring HP as related to academic outcomes. Of the 65 HP studies we located, most (72%) were conducted with university students compared to 32% of the 22 studies of OP we located (see Supplemental materials for a list of studies with associated definitions of HP and OP described in each study and the participants of each identified study). For studies of OP, the research was mainly concentrated on adolescents or young adults retrospectively reporting about their experiences of being parented. In the present study, we focus on parents of late adolescents aged 16 to 19 years, ages that cross over research on both HP and OP, but also an age period when balancing protection with autonomy support may be particularly challenging for parents.

Aims of the Current Study

In summary, HP and OP share much in common, including definitions and similar research directions. However, the correlates and outcomes for youth from HP and OP have been found to differ somewhat, with OP relating more consistently to negative parental dimensions and youth developmental outcomes than HP. It remains unclear, however, whether these differences are due to either substantive differences in operationalization or to the reporter (parent reports versus youth reports) and sample characteristics (children and adolescents versus young adults). Our aim in this study was to jointly consider two widely used measures, one of HP and one of OP, collecting reports from parents of adolescents (16 to 19 years of age). Our approach involved exploratory factor analysis of the items and, once the factors were determined, we compared correlations of scores based on the emergent factors with a range of other measures of parenting, parental beliefs and attitudes, and contextual conditions. Thus, we aimed to determine whether HP and OP items would form separate factors and embed the factors that emerged from the HP and OP items within a nomological net by summarizing and comparing their associations with a range of measures of individual and contextual conditions. Based on reviewing item content, we hypothesized that emergent factors would differentiate a factor more closely aligned to a positive type of parental involvement (including parental responsiveness and support under times of difficulty) from a factor more

closely aligned with general parental demandingness and control. Given past research, we also expected that these factors would be positively interrelated with each other but would diverge in some ways when the nomological net of other measures was considered.

Method

Participants

The study participants were 701 Australian parents of an adolescent 16 to 19 years of age ($M = 16.8$, $SD = 0.7$, 53% boys, 47% girls, five did not identify as boy or girl), 63% female ($n = 444$), 36% male ($n = 254$) (three did not identify as female or male), with a mean age of = 45.6 years ($SD = 8.1$). About three-quarters of parents were married or in a de-facto cohabiting relationship (71%), with 14% single, 8% divorced, and the remainder widowed or separated. Most participants (69%) reported being White, with 10% Asian, 7% First Nations (Indigenous Australians or Torres Strait Islanders), and 14% reporting other ethnic backgrounds, including African, Middle Eastern, Pacific Islander and New Zealand Māori. Of the parents who reported the number of children – 26% had only one child; 39% had two children; 20% had 3 children; and 10% had 4 children. The highest educational level of parents included 40% having completed a bachelor's degree or higher, 31% having completed high school to year 10, 11 or 12, 23% with a trade course, and 6% currently studying at university. Most participants reported they were employed (68%) with 15% stay-at-home carers, 7% self-employed, 4% unemployed, 3% retired, and 3% unable to work. For total annual income in the household, 12% earned <\$30,000 and 14% earned

>\$150,000, with the median earnings of \$75,000-\$95,000 (median personal income in Australia in 2018-19 was \$52,338). The study design and all materials were approved by the university's Human Research Ethics Committee (2022/436).

Procedure

Australian parents of adolescents (16 to 19 years) were recruited using a Qualtrics market research panel. As a panel provider, Qualtrics invites participants to meet the set criteria from a large pool of potential respondents who have agreed to be contacted by the company in order to respond to surveys. Invited participants may opt-in to the survey until recruitment quotas have been filled, and they are directly remunerated by Qualtrics if they complete the survey (the amount is not disclosed). Recruitment focused on the inclusion criteria of a parent of a child between the

ages of 16 and 19 years, representation across Australian states, and gender mix. If a parent had multiple children in the age range, they were asked to report on the oldest child they had that was between the ages of 16–19 years.

A total of 852 parents accessed the survey but 143 (17%) did not complete any survey items and another 8 completed only a few items. Of the 701 parents, another 8 had completed most of the survey but had missed the measure of parent anxiety, 5 were missing responses to job demands and financial scarcity, and 3 were missing responses to enjoyment of parenting and burnout. Little's MCAR was not significant, $\chi^2(6) = 5.56$, $p = 0.475$, suggesting these missing data for the 8 parents were missing completely at random. Thus, missing scores were estimated using expectation maximization, leaving a final sample of 701 parents. Two measures were completed by parents only if their children were attending an educational institution, which reduced the sample size for these measures to 623 (i.e., 11% of youth were not in school).

Measures

Helicopter and Overprotective Parenting (HP and OP)

HP was measured with the 15-item Helicopter Parenting Instrument (HPI), which was originally developed for youth (Odenweller et al., 2014). For this study, items were rephrased to suit parent-report (e.g., “My parent tries to make all of my major decisions” was changed to “I try to make all the major decisions for my child”). OP was measured with the short version (10 items) of the anxious overprotection subscale of the Multidimensional Overprotective Parenting Scale (S-MOPS; Chevrier et al., 2023; e.g., “I often take tasks out of my child's hands without giving them the chance to try it first”). Responses ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*) for all items. In past research, the internal consistency for the youth-report version of the HPI was good ($\alpha = 0.83$; Kelly et al., 2017). The internal consistency of the S-MOPS has also been good in past research ($\alpha = 0.86$; Chevrier et al., 2023). The factor structure of these items and psychometric properties are reported in the Results section.

Parental Autonomy Support, Coercion, Rejection, and Acceptance

Parents completed items from the Parents as Social Context scale (PASC; Skinner et al., 2005) to measure autonomy support (4 items, “I encourage my child to express their opinions even when I don't agree with them”), coercion (4 items, “I find myself getting into power struggles with my child”), and rejection (2 items; “My child needs more time than I have to give them”). In the original development

paper (Skinner et al., 2005), the internal consistency for these subscales ranged from 0.61 to 0.82, with the lowest alpha for the original 2-item autonomy support subscale. Thus, two additional items to measure autonomy support were added from a revised version of the PASC used by Rudolph and Zimmer-Gembeck (2014). PASC response options were from 1 (*Not at all true*) to 4 (*Really true*). Autonomy support ($\alpha = 0.80$, $\omega = 0.80$) and coercion ($\alpha = 0.87$, $\omega = 0.87$) had good internal consistency in the present study. The internal consistency for rejection was lower than ideal ($\alpha = 0.54$, $r = 0.37$). Items on each subscale were averaged to produce composite scores, with higher scores indicating more autonomy support. Despite the rather low α for rejection, these measures were significantly inter-correlated with each other (all $p < 0.001$), supporting overlap between rejection and coercion ($r = 0.59$) and strong inverse associations with autonomy support ($r = -0.27$) and acceptance ($r = -0.32$).

Parental acceptance was measured with the 7-item acceptance subscale of the parent-report version of the Child's Report of Parental Behavior (CRPBI) modified from the original child version and validated in Schwarz et al. (1985; e.g., “I smile very often at my child”, “I am able to make my child feel better when they are upset”). CRPBI responses ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The internal consistency for the parent-report version of this subscale has been good in past research ($\alpha = 0.76$; Brenning et al., 2012) and was high in the present study ($\alpha = 0.90$, $\omega = 0.90$). Parental acceptance was positively correlated with autonomy support, $r = 0.69$, $p < 0.00$, and negatively correlated with rejection, $r = -0.32$, $p < 0.001$, and coercion $r = -0.35$ $p < 0.001$.

Parental Control and Autonomy Support in Education

For adolescents attached to education ($n = 623$), parents completed an 18-item measure of parental control (10 items) and autonomy support (8 items) specific to the domain of education, which had been validated in past research (Cheung et al., 2016; e.g., “I allow my child to make choices about their studies as much as possible”). Responses ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The internal consistency for this scale was good in past research ($\alpha = 0.85$ and 0.89 ; Cheung et al., 2016) and in the present study (parental control $\alpha = 0.91$, $\omega = 0.91$; autonomy support $\alpha = 0.84$, $\omega = 0.84$). A total score for each subscale was formed by averaging all items so that higher scores indicated more parental control or autonomy support.

Parent Anxiety Symptoms

The 5-item trait subscale of the Short State-Trait Anxiety Inventory, the STAIT-5 (Zsido et al., 2020), was used to

measure parents' anxiety symptoms (e.g., "I feel that difficulties are piling up so that I cannot overcome them"). Responses ranged from 1 (*Not at all*) to 4 (*Very much*). The scale was validated by Zsido et al. (2020), the internal consistency has been good in past research (e.g., $\alpha = 0.82$; Rosenbaum et al., 2023), and was high in the present study ($\alpha = 0.91$, $\omega = 0.90$). A total score for parents' anxiety was formed by averaging all items so that higher scores indicated more anxiety.

Child Anxiety and Antisocial Behavior

To measure children's anxiety symptoms, parents completed the 6-item short version of the state anxiety scale of the State-Trait Anxiety Inventory, which had been adapted to a parent-report format and validated in previous research (Al-Yateem & Brenner, 2017; e.g., "My child is worried"). Responses ranged from 1 (*Not at all*) to 4 (*Very much*). The internal consistency was $\alpha = 0.79$ in past research (Al-Yateem & Brenner, 2017) and was good in the present study ($\alpha = 0.82$, $\omega = 0.80$). After reversing responses to three positively worded items, a total score was formed by averaging all items so that higher scores indicated more child anxiety.

To measure child antisocial behavior, 6 items representative of general aggressive and delinquent behaviors were selected from the widely used Child Behavior Checklist (Age 4-18 version; Achenbach, 1991; e.g., "My child lies and cheats"). Responses ranged from 1 (*Not at all*) to 4 (*Very much*). The internal consistency was good in the present study ($\alpha = 0.90$, $\omega = 0.90$). A total score was formed by averaging all items so that a higher score indicated more child antisocial behavior. Child anxiety and antisocial behavior scores were strongly positively correlated with each other, $r = 0.59$, $p < 0.001$, which is consistent with past research that has found similarly strong positive relationships between child internalizing and externalizing behavior using measures with more items (Gomez & Vance, 2014).

Parental Burnout and Enjoyment of Parenting

Parental burnout was measured with the 5-item Brief Parental Burnout Assessment, which was validated by Aunola et al. (2021; e.g., "I have the sense that I'm really worn out as a parent"). In addition, three face-valid items developed for this study were used to measure parents' enjoyment and feelings of competence (e.g., "I enjoy being a parent", "I feel I am a good parent", "I feel I do my best as a parent"). Responses for all items ranged from 1 (*Never*) to 5 (*All the time*). The internal consistency of the burnout items was good in past research (e.g., $\alpha = 0.81$; Aunola et al., 2021) and in present study ($\alpha = 0.88$, $\omega = 0.88$). The internal

consistency of enjoyment was also good in the present study ($\alpha = 0.81$, $\omega = 0.81$). Supporting the validity of enjoyment of parenting, enjoyment and parental burnout were negatively correlated with each other, $r = -0.23$, $p < 0.001$.

Overvaluation of Child

The 7-item Parental Overvaluation Scale (POS), which was validated in a series of studies by Brummelman et al. (2015), measured parents' perceptions of their child as special and entitled to special treatment compared to other children (e.g., "My child deserves special treatment"). Responses ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The internal consistency was good in past research ($\alpha = 0.75$ – 0.84 ; Brummelman et al., 2015) and in the present study ($\alpha = 0.78$, $\omega = 0.78$). A total score was formed by averaging all items so that higher scores indicated more overvaluation.

Social Pressure on Parents and Social Media Comparisons

Twelve items measured pressures from society, other parents, and the media. These items were adapted from Wuyts et al. (2015) to refer to pressure regarding achieving ideal or perfect parenting practices, rather than pressure related to being an achievement-promoting parent (e.g., "Society/other parents/media expect me to be a perfect parent"). In addition, given evidence that online social comparison among parents may be impacting on their parenting behaviors and mental health (Chae, 2022), seven items were created for this study to measure parents' upward social comparison to other parents on social media (i.e., comparison and envy; "I feel inadequate as a parent after viewing social media"). These items were worded to be similar to the items used by Wuyts et al. (2015) and specific wording was developed by drawing on shorter measures that had been used to measure social comparisons to other parents online (Kirkpatrick & Lee, 2022) and qualitative research on parents' social comparisons and envy of other parents (de los Santos et al., 2019). Responses to all 19 items ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*). In pilot research, the 12 items measuring pressure had an internal consistency of $\alpha = 0.94$ (Lamprianidou et al., 2024) and validity was supported with multiple measures of parenting behaviors, and family interactions. Also, internal consistency for the subscales were good in the present study (societal pressure $\alpha = 0.90$, $\omega = 0.90$; other parents' pressure $\alpha = 0.92$, $\omega = 0.93$; media pressure $\alpha = 0.91$, $\omega = 0.91$). The internal consistency for the social comparison items was also good ($\alpha = 0.93$, $\omega = 0.93$). Total scores for each subscale were formed by averaging relevant items and higher scores indicated more pressure and more upward social media comparison.

Parent Job Demands and Family Financial Scarcity

To measure parents' job demands, three items were developed for this study (e.g., "My job demands longer than normal work hours", "I work more hours than I get paid for", "My job demands longer than normal work hours"). In addition, family financial scarcity was measured with 8 of the original 12 items from the Financial Scarcity Scale, which was validated by Hilbert et al. (2022; e.g., "I am often not able to pay my bills on time"). Responses ranged from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The internal consistency of the job demand items was good in the present study ($\alpha = 0.86$, $\omega = 0.86$). The internal consistency of all 12 items on the Financial Scarcity Scale was good in past research ($\alpha = 0.94$; Hilbert et al., 2022) and was good for the 8 items in the present study ($\alpha = 0.95$, $\omega = 0.96$). Total scores were formed by averaging relevant items so higher scores indicated more parent job demands or family financial scarcity. Supporting the validity of the parent job demands measure and family financial scarcity measure, they were significantly correlated with each other, $r = 0.41$, $p < 0.001$.

Data Analyses

An exploratory factor analysis (EFA) was performed using principal axis factoring (PAF; De Winter & Dodou, 2012) with an oblique rotation (direct oblimin) to ascertain the best factor structure for the HP and OP items. We used PAF and oblique rotations because we expected the HP and OP items captured a smaller set of distinguishable (but correlated) latent constructs (each indicated by multiple intercorrelated items; Fabrigar & Wegener, 2012). To determine the number of factors, we used the criterion of an eigenvalue over 1, but also used parallel analysis and Velicer's MAP test (O'Connor, 2000) to determine the final solution. After the number of factors was finalized, we calculated Cronbach's α and McDonald's ω for the items that loaded highly on each factor before forming subscale scores by averaging items. Correlations were estimated to report the associations between these scores and all other measures. We used z-tests to compare the strength of correlations of factors with other measures. Also, partial correlations were estimated to report the unique association of each of the parenting factors with all other measures. The size of Pearson's r was described as follows: 0.1–0.3 was small; 0.3–0.5 was medium and 0.5 or greater as large.

Results

Exploratory Factor Analysis

Prior to factor analysis, the factorability of the HP and OP items was examined. The Kaiser-Meyer Olkin measure of

sampling adequacy was 0.96, well above the commonly recommended value of 0.60 (Kaiser and Rice, 1974), and Bartlett's test of sphericity was significant, $\chi^2(300) = 9850.25$, $p < 0.001$. Subjecting all items to PAF produced four eigenvalues over 1. The first two factors had eigenvalues of 10.31 and 2.50 and explained 41.3% and 10.0% of the variance, respectively (see the first two columns of Table 1). The third and fourth factors had eigenvalues of 1.14 and 1.08 and explained 4.6% and 4.3% of additional variance in the items, respectively. Plotting these eigenvalues showed a leveling off of the visual scree plot after two factors. In addition, parallel analysis and Velicer's MAP test determined that the 2-factor solution was best, with only the first two eigenvalues greater than the first two eigenvalues calculated using parallel analysis (O'Connor, 2000). Thus, the items were subjected to a second PAF forcing a 2-factor solution. The two factors explained 51.2% of the variance, but three items had a low loading (< 0.40 ; Hinkin, 1998) on only one or both factors and a fourth item had low loadings (< 0.46) of similar value on both factors. To produce a final solution, we removed the four items (three from the HP measure and one from the OP measure) with low loadings (< 0.40) and subjected the remaining 21 items to PAF with a forced two factor solution. As can be seen in the last two columns of Table 1, each item loaded highly (> 0.42) on only one of the two factors. Furthermore, nine items, which loaded highly on Factor 1, were from the OP measure and four were from the HP measure. In contrast, the eight items loading highly on Factor 2 were all from the HP measure. In addition, a close consideration of the items revealed that the factors also differed based on the item content. Items loading highly on the first factor asked general parenting behaviors that clearly focused on demandingness, control, and child management of behavior (e.g., "I often take over my child's tasks without giving them the chance to try first"). The items loading highly on the second factor asked about assistance and pragmatic help which could have been parent initiated and proactive or could be responsive to children's needs when they have difficulties (e.g., "I always try to fix difficult situations for my child"). Thus, Factor 1 (13 items) was labelled *Demanding OP* and Factor 2 (8 items) was labelled *Responsive OP* (See Table 1). Cronbach's α for *Demanding OP* was 0.95 and for *Responsive OP* was 0.82; McDonald's ω was the same at 0.95 for *Demanding OP* and 0.82 for *Responsive OP*. Subscale scores were formed to represent the two forms of OP by averaging the items.

Comparing Correlations of Demanding and Responsive OP with other Measures

Demanding and *Responsive OP* were intercorrelated, $r = 0.56$. Table 2 provides the correlations of *Demanding*

Table 1 Results of the Initial and Final 2-Factor Exploratory Factor Analyses of Parent-reported Helicopter Parenting (HP) and Overprotective Parenting (OP) (Principal Axis Factoring with Oblique Rotation) ($N = 701$)

Items	25 Items		21 Items	
	Factor 1	Factor 2	Demanding OP	Responsive OP
I am constantly all over my child (OP)	0.91		0.92	
I find it hard to let my child have privacy (OP)	0.90		0.91	
I follow everything my child does, even when they need time to themselves (OP)	0.88		0.86	
I treat my child like a much younger child (OP)	0.87		0.89	
I tell my child that without me they would probably end up in trouble (OP)	0.87		0.87	
I often take over my child's tasks without giving them the chance to try first (OP)	0.82		0.81	
I often involve myself in things that my child could actually solve by themselves (OP)	0.76		0.75	
I immediately see danger whenever my child wants to do something new (OP)	0.76		0.75	
I try to make all the major decisions for my child (HP)	0.64		0.60	
I give my child the impression that I don't want them to get older (OP)	0.61		0.60	
I discourage my child from making decisions that I disagree with (HP)	0.56		0.53	
I insist on being informed about all my child's daily activities (HP)	0.52		0.49	
I sometimes invest more time and energy in my child's projects than they do (HP)	0.51		0.47	
I always try to fix difficult situations for my child (HP)		0.71		0.77
I feel like a good parent when I solve problems for my child (HP)		0.64		0.68
I feel like a bad parent when I don't step in and try to "save" my child from difficulties (HP)		0.62		0.63
I often go with my child to their appointments or other similar places (e.g., doctor appointments, school meetings, clothing stores) (HP)		0.55		0.58
It is my job to shield my child from stressful events and other adversity (HP)		0.54		0.59
I often have strong reactions when my child has a negative experience (HP)		0.46		0.46
I have to do certain things for my child (e.g., doing laundry, cleaning room, making doctor appointments) or they don't get done (HP)		0.44		0.47
I tell my child my opinions about their personal relationships with friends, boyfriends or girlfriends (HP)		0.43		0.43
I encourage my child to take some risks and step outside of their comfort zone (HP)		0.38	--	--
I am too protective (OP)	0.45	0.31	--	--
I feel like a bad parent when my child makes poor choices (HP)	0.35	0.36	--	--
I don't intervene in my child's life unless they are experiencing major physical or emotional problems (HP)			--	--
Eigenvalue	10.31	2.50	9.53	2.32
Variance accounted for, %	41.3%	10.0%	45.4%	11.0%
Cronbach's α			0.95	0.82
Omega			0.95	0.82

Loadings <0.30 are not shown. Information in parentheses indicates whether the item was originally on the HP or the OP measure

and Responsive OP scores with all other measures, the results of comparisons of the zero-order correlations of Demanding OP versus Responsive OP with other measures, and partial correlations of each measure of OP with all other measures, adjusting for the other measure of OP.

Other Parenting Behaviors

Demanding OP had significant small negative correlations with positive parenting (i.e., autonomy support, parental

acceptance, autonomy support in education; r s from -0.29 to -0.13) and large positive correlations with negative parenting (i.e., rejection, coercion, psychological control in education; r ranged from 0.45 to 0.77 ; see Table 2). In contrast, Responsive OP had statistically significant small to medium positive correlations with both negative and positive parenting measures (r ranged from 0.12 for autonomy support to 0.48 for psychological control in education). There were statistically significant differences in the correlations of all positive and negative parenting dimensions with Demanding OP as compared to

Table 2 Correlations (and Partial Correlations) of Demanding Overprotective Parenting (OP) and Responsive OP with All Other Measures, and Results of Testing Differences (z-score) between the (Dependent) Correlations ($N = 701$ unless otherwise indicated below)

Measures	Demanding OP	Responsive OP	Comparison of r_s		Demanding OP partial r^a	Responsive OP partial r^b
			Z-score	p -value		
Positive Parenting						
Autonomy support	−0.29***	0.12**	−11.77	<0.001	−0.43***	0.36***
Parental acceptance	−0.13***	0.29***	−12.06	<0.001	−0.37***	0.45***
Psych autonomy in educ ^c	−0.23***	0.17***	−10.77	<0.001	−0.40***	0.37**
Negative Parenting						
Rejection	0.45***	0.18***	8.18	<0.001	0.43***	−0.10*
Coercion	0.59***	0.29***	9.85	<0.001	0.54***	−0.06
Psych Control in educ ^c	0.77***	0.47***	11.28	<0.001	0.69***	0.07
Parent & Child Mental Health						
Parent anxiety	0.38***	0.24***	4.18	<0.001	0.31***	0.04
Child anxiety	0.15***	0.00	4.25	<0.001	0.18***	−0.10**
Child Antisocial	0.42***	0.22***	6.05	<0.001	0.38***	−0.02
Views of Parenting						
Burnout	0.55***	0.31***	7.69	<0.001	0.47***	0.00
Enjoyment of parenting	−0.03	0.16***	−5.37	<0.001	−0.15***	0.22***
Societal / Other Pressures						
Society pressure	0.23***	0.42***	−5.76	<0.001	0.00	0.36***
Other parent pressure	0.34***	0.36***	−0.61	0.541	0.17***	0.23***
Media pressure	0.25***	0.29***	−1.18	0.238	0.11**	0.19***
Social media compare	0.64***	0.41***	8.04	<0.001	0.54***	0.09*
Parents' Beliefs						
Overvaluation of child	0.43***	0.50***	−2.30	0.021	0.22***	0.34***
Job/Finance Pressures						
Job demands	0.35***	0.15***	5.86	<0.001	0.33***	−0.07
Financial scarcity	0.29***	0.19***	2.91	0.003	0.22***	0.04

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$ ^acorrelation after adjusting for Responsive OP ($r_{\text{Demanding OP, adjusting for Responsive OP}}$)^bcorrelation after adjusting for Demanding OP ($r_{\text{Responsive OP, adjusting for Demanding OP}}$)^c $n = 623$. educ = education

Responsive OP (see z -scores and p -values in Table 2), even after adjusting the p -value to <0.003 (based on 19 total comparisons). When partial correlations were considered (also shown in Table 2), these differences between Demanding OP and Responsive OP were even stronger and revealed, for example, that Demanding OP was negatively associated (r_s from -0.37 to -0.43), whereas Responsive OP was positively related (r_s from 0.36 to 0.45), moderately to strongly, with positive parenting. Regarding negative parenting dimensions, partial correlations showed that Demanding OP was strongly positively associated with negative parenting dimensions of rejection, coercion, and psychological control in education (r_s from 0.43 to 0.69), whereas Responsive OP was not uniquely associated with coercion ($r = -0.06$) and psychological control ($r = 0.07$) but had a small unique negative correlation with parental rejection ($r = -0.10$).

Parent Anxiety, and Perceived Child Anxiety and Antisocial Behavior

Demanding and Responsive OP were both significantly positively (medium effect sizes) correlated with parental anxiety (see Table 2). Furthermore, Demanding OP, relative to Responsive OP, had a stronger and positive correlation with parent anxiety ($r = 0.38$ and 0.24 , respectively), but partial correlations revealed no significant unique correlation of Responsive OP with parent anxiety once Demanding OP was adjusted ($r = 0.04$). However, Demanding OP remained moderately associated with parent anxiety after adjusting for Responsive OP ($r = 0.31$).

Demanding OP had a significant positive small correlation with child anxiety ($r = 0.15$), but both Demanding and Responsive OP had large and moderate statistically significant positive correlations with child antisocial behavior

($r = 0.42$ and 0.22 ; see Table 2). For partial correlations, Responsive OP was not uniquely correlated with antisocial behavior ($r = -0.02$) and had a small unique negative correlation with anxiety symptoms ($r = -0.10$), whereas Demanding OP remained associated with both child problem with correlations similar in size to the zero-order correlations.

Parental Burnout and Enjoyment of Parenting

Demanding and Responsive OP were significantly and moderately correlated with parental burnout ($r_s = 0.55$ and 0.31 , respectively), with the correlation stronger for Demanding OP than Responsive OP (see Table 2). Responsive OP was significantly (and positively) correlated with enjoyment of parenting ($r = 0.16$), with a weaker and nonsignificant correlation for Demanding OP ($r = -0.03$). Partial correlations revealed no unique association of Responsive OP with burnout ($r = 0.00$) but a strong correlation of Demanding OP with parental burnout ($r = 0.47$), whereas there was a small negative correlation of Demanding OP with enjoyment of parenting ($r = -0.15$) and a positive small correlation for Responsive OP ($r = 0.22$).

Perceived Societal Pressures to be an Ideal Parent, Social Media Comparisons, and Overvaluation of the Child

Demanding and Responsive OP had significant positive correlations (mostly medium to large effects) with all four measures of perceived societal pressures and social media comparison (r_s from 0.23 to 0.64 ; see Table 2). Moreover, there were two differences in the correlations; Demanding OP had a stronger correlation with engaging in social comparison with other parents on social media ($r = 0.64$ vs. 0.41 for Responsive OP), whereas Responsive OP was more strongly correlated with perceiving pressure from society to be an ideal parent ($r = 0.42$ vs. 0.23 for Demanding OP). Partial correlations widened these differences, with Responsive OP having small to moderate correlations with perceptions of pressure (societal, other parents and media; r_s from 0.19 to 0.36) but only a small correlation with social comparisons of parenting on social media ($r = 0.09$), whereas Demanding OP was strongly related to parents' social media comparison ($r = 0.54$). Finally, Demanding and Responsive OP had significant positive correlations (small to large effects) with overvaluation of the child; (see Table 2). Furthermore, the strength of the correlations for Demanding and Responsive OP did not differ.

Job Pressures and Financial Scarcity

Demanding and Responsive OP had significant positive correlations (small to medium effects) with of parent job

demands and perceived family financial scarcity, with the correlations significantly stronger for Demanding OP ($r_s = 0.35$ and 0.29 , respectively) than Responsive OP ($r_s = 0.15$ and 0.19 , respectively). Partial correlations widened these differences, with only Demanding OP still associated with perceiving more parent job demands and family financial scarcity ($r_s = 0.33$ and 0.22 , respectively).

Discussion

The aim of this study was to begin to clarify the differences and similarities in conceptualizations of HP and OP. To do so, we first examined the factor structure of two commonly used reliable and valid measures (HPI and S-MOPS) completed by parents of 16- to 19-year-old children. After forming composite scores based on the emergent factor structure, we compared the relations of these scores with a nomological net of individual and social-contextual measures. As potential indicators of convergence and divergence of factors, we included measures often considered in past research on HP and OP (i.e., other parenting dimensions, and parent and child mental health), but expanded on past research to include measures that could potentially explain how HP and OP might diverge in their relations with parental beliefs, as well as social conditions and pressures from within and outside of the family. Overall, most of the measured covariates were related to parents' reports of their HP and OP of their older adolescent children, and the results suggest that conceiving of OP and HP as either negative and controlling or alternatively as supportive and involved may depend on closer consideration of the items on the measure. In addition, we also found evidence for divergent associations with the family's circumstances across many levels of the system, and the outside influences that may impinge on the family system.

Demanding OP and Responsive OP

Our factor analysis of HP and OP items identified two factors, which we labelled Demanding OP and Responsive OP. Demanding OP was represented mostly by OP items (with some HP items intermingled), which particularly reflected parents' general *demandingness* (overcontrol and autonomy restriction) of children, without reference to a specific situation, setting, or context. The second factor, Responsive OP, was particularly represented by HP items that referred to parents' overinvolvement and information-seeking when there are difficulties for children (e.g., taking a child to a doctor's appointment); in other words, these items especially appeared to reflect parents' *responsivity* to situations of distress. Thus, we found that some items on the HP measure seemed to mix context, circumstances, and

contingencies for OP with the behavior itself. Current HP or OP measures might be mixing support that is appropriate—for example, mixing responding and assisting youth in their responses to stressors—with parenting that involves a general tendency towards overinvolvement, intrusiveness, and control. This might explain some of the mixed findings in past research. For example, in one past study, OP was related positively to child anxiety among children with a concussion, but it also had a small relationship with better recovery from the concussion (Trbovich et al., 2021). Of note here, however, is our reliance on parent report to measure both HP and OP. This is somewhat different from past research that had rarely asked the same reporter (e.g., a parent or an adolescent) to complete measures of both HP and OP. Although important to gather this information from the same respondent, this single-informant approach means it is not known whether parents are or are not responding adequately to youth's needs through their overinvolvement, and instead are undermining youth's psychological needs (Cook, 2020) when they exhibit either more Demanding or more Responsive OP. Future research could consider asking youth about their needs for parental assistance, while also asking them whether their parents are overinvolved in others ways, such as found in research on excessive parental affection (Hesse et al., 2018). Nevertheless, the findings of the present study do provide some possible clarification as to why there have been mixed findings in past research.

Divergence in Associations of Demanding OP and Responsive OP with Other Measures

Although identified as two separable factors, Demanding OP and Responsive OP do have in common a focus on parental overinvolvement and this was supported by the large positive correlation ($r = 0.56$) between them. Yet, at the same time, the correlations of Demanding OP and Responsive OP with other parenting dimensions, parental anxiety and burnout, perceived child anxiety and societal pressures supported their divergence. Sometimes this divergence was in the strength of correlations only, but at other times the direction of correlations also differed, particularly when shared variance was partialled out. The findings for covariates measures at different system levels are further discussed below.

Parenting, Parent and Child Mental Health

There was a great deal of evidence for divergence when Demanding OP and Responsive OP were correlated with other measures of parenting, and with parent anxiety and children's anxiety and antisocial behavior. In general, the comparison of correlations identified Demanding OP as a more negative parenting behavior (relative to Responsive

OP), given its pattern of correlations with less parental warmth, less autonomy support, and more control, and its positive covariation with more mental health problems in both parents and children. Furthermore, this pattern became even clearer after partialling out the other factor, such that Demanding OP was positively correlated with negative parenting and negatively correlated with positive parenting, whereas the reverse correlations were found for Responsive OP. Also, parents who scored higher in Demanding OP were higher in anxiety and reported their children to be higher in anxiety and antisocial behavior, whereas Responsive OP was not significantly related to any of these measures.

It was primarily Demanding OP (made up of items from the S-MOPS) that related most to negative relations in the home and more mental health problems in parents and children, which could be particularly detrimental for future advances in major adolescent and emerging adult developmental tasks, such as autonomy development, academic achievement, and self-reliance in coping with stress and decision-making. All of these associations of OP and youth functioning have been found in past research using the S-MOPS (Lewis et al., 2023) or the full MOPS (Flamant et al., 2022; Mathijs et al., 2024; Van Petegem et al., 2020). The present findings suggest that future research could reveal even stronger negative implications for youth's development if Demanding OP is differentiated from Responsive OP. Another option for further research would be to use a profile-based approach to test whether different combinations exist (i.e., high on both OP dimensions versus high on Responsive OP and low on Demanding OP).

Parental Burnout and Enjoyment of Parenting

Given that we could locate only one previous study that had examined associations of parent-reported HP or OP with parental burnout, which reported a moderate positive relationship of OP with parental burnout (Zimmermann et al., 2022), it is notable that our findings not only revealed significant associations, but also revealed distinct associations for Demanding compared to Responsive OP. Parents who reported more Demanding OP report feeling more burdened in their parenting role (more burnout and less enjoyment of parenting, after adjusting for Responsive OP), whereas Responsive OP was not associated with parental burnout and was associated with more enjoyment (after adjustment for Demanding OP). Given the positive correlations of Demanding OP with parent/child mental health problems, this adds evidence that Demanding OP relates to problems in many forms among parents and youth. Similar to what others have described in research on HP (Cook, 2020; Buchanan & LeMoyné, 2020) and OP (Brenning et al., 2017; Givertz & Segrin, 2014; Leung, 2020), we

expect that parental overinvolvement in their children's day-to-day activities, emotions, and behaviors can be both a precursor of and a response to these multiple family and child problems.

Although the present study was novel in considering OP and parental burnout, there are studies in other areas that identified overinvolvement in caring work as a risk factor for developing burnout symptoms and experiencing less enjoyment or role satisfaction. For example, one review reported that psychotherapists who were more overinvolved in clients' problems were higher in job burnout (Simionato & Simpson, 2018) and, in a primary study, social workers who were more overinvolved in their work were lower in global job satisfaction ($r = -0.28$) and higher in burnout ($r = 0.48$; Koeske & Kelly, 1995). Future research could draw from models of overinvolvement from organizational research focused on the caring professions to expand on the findings of the present study by including, for example, other measures of satisfaction, as well as measures of perceived workload and sharing of tasks, role beliefs, and support from other family members. All could be associated with HP, OP, parental burnout, and enjoyment of parenting.

Pressure in the Parenting Role and Parents' Overvaluation of the Child

In comparison to the findings of differing correlations of Demanding OP and Responsive OP described above, the findings were less distinct when we correlated the two OP measures with external pressures in the parenting role. Similar to previous research (e.g., Venard et al., 2023), the zero-order correlations showed that parents higher in OP (either form) perceived greater pressure to be an ideal parent from society, other parents, and the media, and engaged in more parenting social comparison. Yet, correlations with these pressures did suggest one important difference: Responsive OP seemed to be more strongly linked to perceived contextual pressures to be an ideal parent but less strongly associated with social comparison on social media, relative to Demanding OP. Indeed, Demanding OP was no longer associated with perceived pressure from society to be an ideal parent after adjusting for Responsive OP, whereas the correlation of Demanding OP with social comparison on social media remained particularly strong. Thus, OP, regardless of whether it is the demanding form or the responsive form, seems linked in important ways to parents' perceptions of pressures to be an ideal parent, whereas Demanding OP was particularly intermingled with parents' social comparisons to other parents on social media. These findings of a strong relationship of Demanding OP with social comparison adds on to other research that has found that comparing parenting ability, which is now so easy to do on social media, can promote feelings of competition (Chae,

2015), anxiety and negative emotions (de Los Santos et al., 2019; Kirkpatrick & Lee, 2022) and diminished feelings of parental self-efficacy (Glatz et al., 2023). Thus, it is not surprising that Demanding OP, rather than Responsive OP, is more strongly related to parents' social comparison to other parents online. Furthermore, in the area of children's education, research has found that parents' social comparison to other parents and children can yield feelings of competition but also consumption (both in terms of financial investment but also information consumption), potentially with the aim of improving parenting and child outcomes (Chae, 2022; Glatz & Lippold, 2023). Thus, future research could direct attention to identifying how parental overprotection might also relate to parents' competitive views and their consumption behaviors.

A related novel set of analyses was our consideration of parents' overvaluation of the child. Both Demanding and Responsive OP covaried quite strongly with a higher level of overvaluation of the child. This finding is curious, given that past research, although relatively limited and often focused on younger age groups, has found only small and nonsignificant correlations of parental overvaluation of children with other parenting practices, including both negative and positive practices (Brummelman et al., 2015; Coppola et al., 2020). Instead, the evidence has pointed to positive correlations of overvaluation of children and parental narcissistic traits (Coppola et al., 2020) or child narcissistic traits (Brummelman et al., 2015; Coppola et al., 2020; van Schie et al., 2020). However, there are elements in the descriptions and correlates of overvaluation that may overlap conceptually with OP, whereby parents who overvalue their children have been found to reward and praise more than appropriate, fix their children's problems and interfere with children taking ownership of their mistakes, and provide feedback to fuel children's unrealistic views of their abilities (van Schie et al., 2020). Thus, overvaluation and OP seem to share some conceptual space and may covary within families, making it important for future research to differentiate the impacts of overvaluation from the impacts of OP on parents and youth.

Job and Financial Pressures

Finally, Demanding OP was particularly intermingled with parents' felt job demands and family financial scarcity relative to Responsive OP. Responsive OP was no longer associated with perceived job demands and financial scarcity after adjusting for Demanding OP. It seems that work pressures may be spilling over into the family, emerging as more reliance on overcontrol and autonomy restriction of their children (cf. De Salvo et al., 2023). Such findings are consistent with research on work-family conflict (a concept based on the scarcity hypothesis that job demands limit time

and energy), finding higher work-family conflict was significantly associated with less warmth in parenting (Cooklin et al., 2015), more OP (Mohr & Sonnentag, 2023), and weakens the parent-child attachment (Hongbo et al., 2020). Thus, the findings of Demanding OP and the association with work pressures aligns with the research of negative work-family spillover that has been associated with high job pressure and poor family quality (Grzywacz & Marks, 2000) that can lead to increased harsh parent-child interactions (Gassman-Pines, 2013). Also, other research on the effects of job demands on parenting found demands were negatively correlated to positive interactions with children (Bass et al., 2009). The findings in the current study indicate that this may be an area that requires further investigation.

Limitations, Summary, and Conclusion

Although this study had a large sample size and collected data from parents, the design of the study was cross-sectional. Thus, no causal inferences or conclusions about the direction of effects can be made. A second limitation is that we focused on a mix of mothers and fathers reporting about their male or female adolescent children. We acknowledge that there are gendered parenting patterns that this may not address, but to do gender comparisons within the context of the aims of this paper seemed premature. Third, we gathered data from parents of older adolescents aged 16 to 19 years, rather than considering emerging adults (mostly university students) that populate many past studies. Therefore, our findings may reflect some age differences in how much parents want to be or are expected to be involved in some aspects of the young person's everyday life, such as taking them to doctors' appointments and being informed of their children's activities. Coupling this with the many new stressful experiences that can occur for adolescents and emerging/early adults – this could prompt a peak of parent interference in some families and the appropriateness of these responses during adolescence and into adulthood deserves further attention. A fourth limitation relates to generalizability, given that the study was conducted in Australia. Finally, with the aim of collecting quality responses, the length of the survey was reduced by using shortened measures whenever reasonable, and some items had to be reworded to gather parents' viewpoint. In addition, three measures were used for the first time in this study (i.e., enjoyment of parenting, parent job demands and social comparisons to other parents on social media), but items were developed after sourcing similar measures in these areas. Also, one measure (parental rejection) had a lower than desirable Cronbach's α , but it was intercorrelated with other measures of parenting in expected ways. Findings involving these measures should be interpreted with caution and replication of this study is recommended.

Despite these limitations, the current study suggests that individual and contextual conditions are important considerations when measuring HP and OP, differentiating OP that may be more positive and responsive to children's needs for support from more Demanding OP parenting practices. Correlations of Responsive OP with a range of measures (parenting behaviors, parent anxiety and burnout, child mental health, and social pressures and job pressures) as compared to correlations involving Demanding OP supported this divergence. Overall, the pattern of correlations suggests that Responsive OP (which contained only HP items) may be more closely aligned with positive parenting behaviors used to provide support when children are facing difficulties. In contrast, Demanding OP (which contained mostly OP items) is related more strongly to parents' autonomy restriction, rejection, and coercion of children and is more closely associated with parental burnout, mental health problems in the family, and job and financial pressures. Nevertheless, Demanding OP and Responsive OP shared features in common – both are higher when parents perceive more pressure from other parents and the media to be perfect parents, and both relate to more overvaluation of children's characteristics and qualities. As a practical implication, considering similarities and differences between Demanding OP and Responsive OP could assist schools to think about differences between seemingly overprotective but clearly overinvolved parents. Identifying these differences could yield better strategies to capitalize on their involvement (Earle & LaBrie, 2016) in a way that provides support for children's autonomy, and boosts children's positive well-being and pro-social behavior into the future.

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1007/s10826-024-02896-x>.

Acknowledgements This research was supported by the Australian Research Council (discovery project DP220101087) led by the second author and the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement 950289) led by the last author. The authors thank Tanya Hawes for assistance with data collection and management.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions.

Compliance with ethical standards

Conflict of interest The fifth author, Bart Soenens is on the editorial board of the Journal of Child and Family Studies. There are no other potential conflicts of interest.

Ethics approval The questionnaires and methodology of this study was approved by the Griffith University Human Research Ethics committee (GU Ref no: 2022/083).

Consent to participate and publish Informed consent was obtained from all individual participants included in the study; no identifying

data was associated with responses. Participants consented to research results being disseminated via journal articles.

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