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Article in *Assessment* · August 2016

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Dimensionality of Helicopter Parenting and Relations to Emotional, Decision-Making, and Academic Functioning in Emerging Adults

Assessment
1–17
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DOI: 10.1177/1073191116665907
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Abstract

The current study tests the underlying structure of a multidimensional construct of helicopter parenting (HP), assesses reliability of the construct, replicates past relations of HP to poor emotional functioning, and expands the literature to investigate links of HP to emerging adults' decision-making and academic functioning. A sample of 377 emerging adults (66% female; ages 17-30; 88% European American) were administered several items assessing HP as well as measures of other parenting behaviors, depression, anxiety, decision-making style, grade point average, and academic functioning. Exploratory factor analysis results suggested a four-factor, 23-item measure that encompassed varying levels of parental involvement in the personal and professional lives of their children. A bifactor model was also fit to the data and suggested the presence of a reliable overarching HP factor in addition to three reliable subfactors. The fourth subfactor was not reliable and item variances were subsumed by the general HP factor. HP was found to be distinct from, but correlated in expected ways with, other reports of parenting behavior. HP was also associated with poorer functioning in emotional functioning, decision making, and academic functioning. Parents' information-seeking behaviors, when done in absences of other HP behaviors, were associated with better decision making and academic functioning.

Keywords

helicopter parenting, overprotection, emerging adults, anxiety, depression, decision making, academic functioning

Most current 18- to 25-year-olds do not consider themselves adults (Nelson & Barry, 2005). Reflecting this recent trend, administrators in higher education have raised concerns regarding parents' thwarting of their adult children's autonomy by engaging in certain overprotective parenting practices (Hunt, 2008). For example, parents may excessively contact their children, intervene in grade disputes, and clean their children's dormitory rooms (Colavecchio-Van Sickler, 2006; Hunt, 2008; Somers & Settle, 2010). These practices and others like them have been colloquially termed "helicopter parenting," describing parents who "hover" over their children and micromanage their lives (Cline & Fay, 1990). Given the potentially negative influence that helicopter parenting (hereafter HP) may have on emerging adults (e.g., Hofer & Moore, 2010; Schiffrin et al., 2014), understanding the underlying measurement structure of items that assess HP may aid in tests of HP's influence on functioning. Moreover, although HP has been discussed as a singular construct (e.g., LeMoyné & Buchanan, 2011; Padilla-Walker & Nelson, 2012), some work suggests it is a multifaceted construct (e.g., Segrin, Woszidlo, Givertz,

Bauer, & Murphy, 2012), with some aspects more detrimental than others or even with some aspects that when done outside of the context of HP may be viewed positively by youth. The goals of the current study were to test the underlying structure of a multidimensional measure of HP, assess its psychometric properties, replicate past relations of HP to poor emotional functioning, and expand the literature to investigate links of HP to emerging adults' decision making and academic functioning.

Definitions of Helicopter Parenting

The definition and scope of the HP construct has varied. Generally speaking, most authors contend that HP is not a

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new type of parenting behavior, but rather a specific style composed of overly involved parenting that prevents development of independence or autonomy (LeMoyné & Buchanan, 2011; Schiffrin et al., 2014). In this way, HP likely includes aspects of behavioral or psychological control. Behavioral overcontrol is excessive regulation of children's behavior (Barber, Olsen, & Shagle, 1994), whereas psychological control includes behaviors that ". . . intrude into the psychological and emotional development of the child" (Barber, 1996, p. 3296). But, HP likely also includes other distinct components (e.g., information seeking) and may occur in unique aspects of children's lives (e.g., academics). Indeed, empirical work suggests HP may be different from, yet related to, behavioral and psychological control (Padilla-Walker & Nelson, 2012) and may arise in mundane domains (e.g., cleaning for the emerging adult; Hunt, 2008). HP may also have conceptual overlap with monitoring, which involves surveillance and behavioral control (Stattin & Kerr, 2000). These constructs, however, have not been empirically tested for an association. Interestingly, monitoring may depend on child disclosure, suggesting that adults' perspectives of this behavior may be incomplete relative to children's undisclosed activity. Therefore, children's perspectives on their parents' behavior may be essential in fully understanding these potentially related constructs. Finally, unlike psychological and behavioral control, HP may be also characterized by high warmth and support. As Segrin et al. (2012) note, parents who engage in HP are likely to go above and beyond to protect their child and ensure the child's happiness. Considered together, the most compelling definition, and one we echo, is Padilla-Walker and Nelson's (2012) position that HP is not a new parenting dimension but rather a distinct pattern of known parenting behaviors characterized by high involvement (which may look like warmth or support), some aspects of controlling behavior, and low autonomy granting across multiple contexts.

Measurement of Helicopter Parenting

Several recently developed measures of HP exist, though exact items and factor structure (either assumed or tested) vary. LeMoyné and Buchanan's (2011) Helicopter Parenting Scale (HPS) was the first empirical measure of HP. The HPS a seven-item, unidimensional measure of HP that assesses college students' perceptions of parental control in current and past interactions. Similarly, Padilla-Walker and Nelson's (2012) five-item youth- and parent-report measure demonstrated that HP is a unique construct relative to psychological and behavioral control. In their work, HP was operationalized as the extent to which parents make important decisions for their emerging adult children. Attempting to develop a multidimensional measure of supportive

parenting behaviors and HP behaviors, Schiffrin et al. (2014) created a 15-item youth-report measure. Contrary to their expectations, these researchers found a single HP dimension, and unexpectedly found that HP was *positively* correlated with autonomy-supporting behaviors.

Segrin et al. (2012) developed the most comprehensive multifactor measure of HP to date, identifying four unique factors: anticipatory problem solving, advice/affect management, child self-direction, and tangible assistance. Here, HP comprises behaviors (as rated by parents themselves) ranging from preventing problems for the child before they occur to cheering up the child to paying the child's bills. The four factors were moderately correlated (r s ranged from .04 to .51, with most above .30) and a single latent HP factor (labeled overprotective parenting) with the four factors as indicators was fit to the data and used in subsequent analyses. Interestingly, however, when the factors were examined individually, some HP aspects were related to seemingly negative family characteristics (e.g., the limiting child self-direction factor related to an authoritarian parenting style), whereas others were associated with positive outcomes (e.g., the advice-giving factor related to an authoritative parenting style).

This pattern of seemingly contradictory relations is not an isolated finding. Emotionally, children of helicopter parents report lower psychological well-being (LeMoyné & Buchanan, 2011), are less satisfied with family life (Segrin et al., 2012) or life in general (Schiffrin et al., 2014), and are more likely to have greater depression and anxiety (Schiffrin et al., 2014; Segrin, Woszidlo, Givertz, & Montgomery, 2013) or be prescribed medication for depression and anxiety (LeMoyné & Buchanan, 2011). That said, popular press reports suggest that HP may actually be welcomed by some students (Donnelly, 2011), and some empirical evidence supports HP as potentially advantageous in some ways. For example, children reported that, when their parents engaged in HP, parents were viewed as emotionally supportive even if they were also seen as autonomy limiting (Padilla-Walker & Nelson, 2012). This may be a specific instance in which HP and monitoring overlap.

One explanation for the mixed results reviewed above is that HP is a multidimensional construct and may consist of specific behaviors that vary in terms of level of involvement (e.g., information-seeking vs. advice-giving) and perceived effect by the emerging adult (e.g., "my parent is engaged" vs. "my parent squelches autonomy"). As Padilla-Walker and Nelson (2012) suggest, behaviors that seem supportive in isolation may not be viewed as such when taken too far or combined with other more noxious autonomy-limiting behaviors. For example, a parent asking for a behind the scenes look into her or his child's social life may be seen as inquisitive or emotionally supportive by one youth, but when that behavior is coupled by a parent's direct intervening in said social life, a second

youth may perceive that former behavior as prying. Likewise, the broad construct of HP may theoretically have adjustment trade-offs such that some aspects increase positive outcomes (e.g., perceptions of parental warmth), whereas others increase negative outcomes (e.g., anxiety). The current study, using emerging adults' perceptions of HP, tests if some aspects of HP may be detrimental, whereas others may be beneficial.

To test this question, the current study used bifactor modeling (see Reise, 2012). Bifactor modeling is a powerful technique that can be used to test the extent to which various parenting behaviors should be considered together as one construct (i.e., HP), unique dimensions or subfactors, or some combination of the two (i.e., reliable variance in item responses is explained by an overarching HP factor as well as unique parenting subfactors). Such modelling is especially useful when items are seemingly quite heterogeneous (Reise, Morizot, & Hays, 2007), as is the case for HP behaviors that might range from parents simply asking their child about the ins and outs of their day to directly intervening in workplace conflict. Several plausible factor structures might be expected. Given HP's definition as a mix of both high involvement but also high control/low autonomy supportive behaviors (Padilla-Walker & Nelson, 2012), a two-factor solution might be expected. Empirical work has suggested a single-factor (Schiffrrin et al., 2014) or a four-factor solution in which the factors were differentiated less by valence of the parenting behavior but more so by intensity of the intervention or the domain in which it occurs (e.g., in a child's day-to-day tasks vs. her emotional functioning; Segrin et al., 2012). If it is the case that both a general HP and specific HP subfactors emerge, such a model may help explain some of the mixed findings to date in the literature, as well as why a single latent factor fit the data well in Segrin et al.'s (2012) model that most comprehensively examined HP.

More important, compared with the second-order CFA used by Segrin et al. (2012), a benefit of the bifactor approach is that relations between subfactors and outcomes can be tested over and above general factors (Chen, West, & Sousa, 2006). In this way, such modeling would allow tests of whether certain parenting behaviors not only (a) contribute to an overall HP construct but also (b) predict outcomes differently when enacted outside of the HP context. Evidence from other literature suggests the likelihood that some parenting behaviors may be interpreted differently when done in the context of other behaviors. For example, parental monitoring can be viewed by youth as either supportive or restrictive depending on whether done in the context of an authoritative or authoritarian parenting style, respectively (Timmerman, Ceulemans, De Roover, & Van Leeuwen, 2013). Conceivably, behaviors that comprise HP may have similar, and seemingly contradictory, context-dependent influences on different youth.

Construct Validity of Helicopter Parenting

To better extend the usefulness of HP as a construct, it must also be examined in relation to other broader aspects of emerging adults' lives (i.e., its nomological network; Cronbach & Meehl, 1955). As mentioned, HP has been extensively examined in relation to emotional functioning. In the current study, we attempted to replicate findings of an association of HP to both depression and anxiety symptoms (Schiffrrin et al., 2014; Segrin et al., 2013). Two other important areas of functioning that have not been thoroughly examined despite theoretical links to HP are decision making and academic adjustment. Regarding decision making, plausibly, individuals who experience parental overinvolvement develop working models of perceived control that influence their decision making. For instance, these individuals may avoid decisions or rely more on others for advice. Relations of HP to decision making style have yet to be tested. Similarly, although HP behaviors often center on academics, relations between HP and actual academic outcomes have generally not been tested. Although a nonsignificant relation between HP and grade point average (GPA) has been found in one study (Odenweller, Booth-Butterfield, & Weber, 2014), related findings do suggest that children of helicopter parents are less engaged in school (Padilla-Walker & Nelson, 2012) and may not develop critical thinking (Hunt, 2008). Potentially, micromanagement is perceived as autonomy limiting, and, therefore, is related to poorer performance. Alternatively, students' performance may actually improve with assistance in managing academic tasks, as one study suggests students of highly involved parents report greater academic engagement (Shoup, Gonyea, & Kuh, 2009). The current study examines HP, as perceived by emerging adults, in relation to these understudied aspects of functioning.

Current Study

Although providing a strong foundation, past studies that have assessed HP are limited in either their measurement of HP or in the scope of their investigation of HP in relation to other constructs. First, many current measures assessing HP used a restricted population of initial items. Second, no multidimensional measure of HP from emerging adults' perspective exists. The most comprehensive measure to date has only used parent report of their own behavior and did not examine a bifactor model of HP. Youth perceptions of parenting are often more predictive of outcomes than observed parenting (e.g., Barber, 1996), and youth report of family functioning tends to correlate more strongly with observed family behavior than does parent report (Gonzales, Cauce, & Mason, 1996). Parents tend to report in ways that shine a more favorable light on their parenting (Gonzales et al., 1996). Finally, the uniqueness of HP compared with other

well-established parenting variables and in relation to important aspects of functioning (e.g., decision making and academic performance) for emerging adults have not been tested.

Addressing these limitations, the first aim of the current study was to empirically test the dimensionality of HP as perceived by emerging adults using bifactor modeling. Second, we tested whether HP merely reflects commonly studied and well-accepted facets of parenting or if it is a unique blend of parenting behaviors. We also tested if HP was statistically unique from other parenting behaviors such as overprotection, psychological control, and perceived warmth. Finally, we tested relations of HP to other broader aspects of emerging adults' lives. To replicate past work, we examined HP's relation to emerging adults' depression and anxiety symptoms. To extend the literature, HP's relations to decision making and academic functioning were explored. Examining HP in relation to these important, yet previously unstudied, outcomes may explain why some HP behaviors are more detrimental than others.

Regarding our aims, we had several hypotheses. Given the relatively few studies examining the empirical structure of HP, it was difficult to put forth a hypothesis regarding the specific number of factors expected. In line with Segrin et al.'s (2012) parent-report measure, however, we hypothesized a multifactor structure of HP including factors varying on intensity and engagement levels of parenting behaviors. Similarly, we expected at least one factor to represent highly involved or supportive behaviors, but also other factors that comprised autonomy-limiting behaviors that occur within different aspects of emerging adults' lives (e.g., academic vs. social). We did expect these behaviors to load on an overarching HP factor. In line with Padilla-Walker and Nelson (2012), we expected that our broader measure of HP would also be unique from other forms of control. Because HP appears to limit perceived autonomy (Padilla-Walker & Nelson, 2012), we expected that most factors of HP would be associated with poorer emotional functioning, less independent decision making, and poorer academic outcomes. In contrast, we also hypothesized that factors that represented less intense, but still active engagement in students' lives would be associated with positive outcomes across areas of functioning.

Method

Participants

Participants were 377 emerging adults ($M_{\text{age}} = 18.85$, $SD = 1.05$, range = 17-25; 66.1% female; 11 individuals did not indicate biological sex) attending a Midwestern public university. This particular university is known for its high academic standards (e.g., incoming classes generally have an average ACT of 28; around 35% of incoming students were top 10% in their high school class) which potentially

provides a particularly fertile context in which to study HP. Participants were primarily in their first year of college (55.8%), with fewer in their sophomore (26.7%), junior (9.8%), or senior (4.8%) year. Most students self-identified as European American (87.8%), with remaining participants identifying as either Asian/Asian American (4.0%), African American (2.6%), American Indian/Alaska Native (0.8%), Biracial (1.1%), or Other (1.0%). Of participants, 2.6% also self-identified as Hispanic/Latino. Participants' biological parents were mostly married (78.5%), but several had parents who were divorced but at least one was remarried (9.8%), divorced and neither remarried (5.8%), never married (2.9%), separated (1.9%), or some other arrangement including widow/widower (2.1%). Almost all students (97.3%) were living out of their family's home at the time of participating (e.g., in a residence hall or off-campus apartment).

Measures

Although many measures described below assess various parenting behaviors, all measures were completed by emerging adults and thus can be considered perceptions of parenting rather than parent report or observed parenting.

Helicopter Parenting. HP items were created for the current study. At the time of data collection, only one measure of HP had been published (i.e., the HPS by LeMoyné & Buchanan, 2011). Additional measures assessing HP (i.e., Padilla-Walker & Nelson, 2012; Schiffrin et al., 2014; Segrin et al., 2012) had not yet been published. Therefore, following best practices in the literature (Clark & Watson, 1995), items were generated via four processes: (a) Measures of similar constructs published in the literature were scanned to identify relevant items (i.e., the HPS described above). (b) Four PhD-level experts in the fields of communication and clinical, developmental, and family psychology each generated separate lists of up to 50 possible items that reflected HP behavior. (c) An in-depth focus group with eight undergraduate students was conducted to assess their perceptions of HP. The group was first asked if they had heard of the term "helicopter parenting." All eight participants affirmed that they had. Then, participants were asked the open-ended question, "In your own words, describe what helicopter parenting is." Follow-up queries elicited more information on specific parenting behaviors deemed to fit (or not fit) under the construct of HP as these emerging adults understood it. (d) Finally, a sample of 280 undergraduate students (separate from the current sample; 68% women, $M [SD]$ age = 18.59 [1.07]) were surveyed as part of a larger mass survey of all students enrolled in an introductory psychology course. Participants completed the survey online. Germane to the current study, participants were asked to respond in writing to the prompt: "What does the term *Helicopter Parent* mean to you?"

This varied approach was taken to sample items from multiple domains of the broad concept of HP. For example, whereas the experts were more likely to identify behaviors in the academic realm (e.g., a parent helping with a student's homework), the focus group generated many behaviors related to social functioning (e.g., a parent who wants to know the "behind the scenes" information of a student's social life). Similarly, on the open-ended survey students primarily indicated items such as prying into personal information, helping or interfering in all aspects of the child's life, and not letting children make their own decisions or mistakes (full results can be obtained from the corresponding author). All possible items from these four processes were reviewed by the study's lead personnel, overlapping items or behaviors were removed or condensed into a single item, and a final list of 44 items was generated for the initial item pool.

Given recently published measures of HP, we compared the content of those measures (i.e., Padilla-Walker & Nelson, 2012; Schiffrin et al., 2014; Segrin et al., 2012) with the 44 new items generated. Specifically, pairs of undergraduate research assistants separately coded whether the content of items on existing measure were or were not covered by the new items (overall $\kappa = .92$). Overall, approximately 73% of items on preexisting measures were similar to items on the new scale suggesting that the newly designed scale had adequate construct validity. Items on existing scales not included on our measure were items regarding parents monitoring youth exercise or diet (Schiffrin et al., 2014), youth having a curfew at home (Schiffrin et al., 2014), or several items focused on parents doing whatever it takes to ensure youths' happiness or minimize emotional pain (Segrin et al., 2012; specific items are available from the corresponding author).

To complete the measure, participants in the current study were asked to think about the parent or caregiver with whom they spent the most time growing up. No specific time frame for retrospective reporting was given to participants. If both a female and male caregiver had equal influence in raising them, they were instructed to think about the female caregiver when answering items (consistent with other measures of HP; Schiffrin et al., 2014). Participants then indicated in writing the parent/caregiver about whom they were answering (in the current study 336 [89.1%] reported on a female caregiver, whereas 41 [10.9%] reported on a male caregiver) and completed all items. The response scale ranged from 1 (*strongly disagree*) to 6 (*strongly agree*), and all items began with the stem "My parent is the type of parent who . . ." followed by a specific helicopter behavior (see Tables 1 and 2). Higher scores indicated more HP.

Parental Overprotection, Care, and Psychological Control. Parenting behaviors during the participants' childhood were

assessed with two measures. For both, respondents reported on the same parent as for the HP items. First, the 25-item Parent Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) was used to measure parental overprotection and care. On 25 items, respondents indicated on a 4-point scale (0 = *very unlike me or not at all true*, 3 = *very like me or very true*) how true each statement was. The PBI has two subscales: (a) 13 items assessing *overprotection* ($\alpha = .86$; e.g., "My parent tries to control everything I do") and (b) 12 items assessing *care* ($\alpha = .92$; e.g., "My parent spoke to me in a warm and friendly voice"). Mean item scores for each subscale were calculated, with higher scores indicating higher overprotection and care. The PBI has demonstrated good reliability and validity with college students in relation to emotional and social functioning (Fendrich, Warner, & Weissman, 1990).

Second, parental psychological control was assessed with the Psychological Control Scale–Youth Self-Report (PCS-YSR; Barber, 1996). The PCS-YSR is an eight-item self-report measure that assesses perceptions of parental psychological control including behaviors like constraining verbal expressions, invalidating feelings, personal attacks, and love withdrawal. Responses are on a 3-point Likert-type scale indicating the degree to which the participant perceives each item as describing his or her parent, where 1 = *not like him or her*, 2 = *somewhat like him or her*, and 3 = *a lot like him or her*. A sample item includes, "My mother is a person who is always trying to change how I feel or think about things." The mean item score was used, with higher scores indicating greater perceived psychological control. Although the PCS-YSR was developed for use with younger adolescents, it has also been used with emerging adults (Luyckx, Soenens, Vansteenkiste, Goossens, & Berzonsky, 2007). PCS-YSR scores are reliable and correlate inversely with behavioral control scores, suggesting construct validity distinct from other forms of control (Barber, 1996). In the current study, internal consistency was $\alpha = .76$.

Anxiety and Depressive Symptoms. Symptoms of depression and anxiety were measured with the Depression Anxiety Stress Scales–21 (Antony, Bieling, Cox, Enns, & Swinson, 1998; Lovibond & Lovibond, 1995). Using a 4-point scale (1 = *did not apply to me at all* to 4 = *applied to me very much or most of the time*), participants indicated how often they experienced a given symptom in the past week. Only the *depression* (seven items, $\alpha = .92$; e.g., "I felt downhearted and blue") and *anxiety* (seven items, $\alpha = .90$; e.g., "I felt I was close to panic") subscales were used in the current study. The Depression Anxiety Stress Scales–21 demonstrates acceptable internal consistency and concurrent validity (Antony et al., 1998; Lovibond & Lovibond, 1995) and has been used in numerous studies examining college student functioning (e.g., Gudjonsson, Sigurdsson, Eyjolfsson, Smari, & Young, 2009).

Table 1. Communalities, Factor Loadings, and Eigenvalues for Four-Factor Model of Emerging Adults' Perceptions of Helicopter Parenting Behaviors ($N = 377$).

| My parent is the kind of parent who . . . | Communalities | Factor loading | | | |
|--|---------------|---------------------|----------------------------------|------------------|-------------------|
| | | Information Seeking | Academic and Personal Management | Direct Intervene | Autonomy Limiting |
| likes to have an update on day-to-day life | .58 | .82 | .00 | .04 | -.07 |
| wants to know the "behind the scenes" information of my social life | .47 | .70 | -.08 | .16 | -.01 |
| likes to know the details of my daily schedule | .51 | .73 | .04 | -.01 | .04 |
| likes to have an update on my whereabouts | .44 | .69 | -.08 | -.06 | .12 |
| likes to help me make decisions | .34 | .52 | -.01 | .01 | .06 |
| asks about grades | .28 | .41 | .14 | -.10 | -.01 |
| reminds me about class times/exams | .60 | -.09 | .81 | .01 | .03 |
| helps me complete school projects | .56 | .08 | .77 | .01 | -.14 |
| rewrites my papers | .55 | -.08 | .70 | .04 | .07 |
| calls to make sure I am awake in the morning | .47 | -.05 | .61 | .14 | .03 |
| reminds me about my own important tasks and deadlines (e.g., school, work) | .46 | .05 | .59 | -.02 | .09 |
| cleans my house or apartment for me on a regular basis | .53 | -.03 | .55 | .04 | .05 |
| washes my clothes for me even when I am not home | .46 | .06 | .49 | .05 | -.03 |
| takes care of my personal finances | .23 | .10 | .41 | -.16 | -.01 |
| checks in about my job | .25 | .07 | .44 | -.06 | .07 |
| intervenes on my behalf with roommate(s) | .72 | .05 | .07 | .86 | -.02 |
| intervenes on my behalf with my friends | .72 | .05 | .01 | .85 | .05 |
| intervenes on my behalf with my romantic partners | .63 | .04 | -.02 | .77 | .08 |
| intervenes on my behalf with my coworkers or boss | .61 | -.06 | .12 | .72 | .02 |
| tries to prevent me from making my own mistakes | .63 | .06 | .04 | -.01 | .83 |
| structures my life for me | .60 | .17 | .04 | .05 | .70 |
| does not support my decisions | .46 | -.13 | .07 | .08 | .63 |
| never provide me with a good reason when she or he says "no" | .39 | -.09 | .02 | .00 | .60 |
| Eigenvalues | | 7.36 | 2.75 | 1.91 | 1.30 |
| % Variance | | 29.25 | 10.07 | 6.47 | 4.10 |

Decision Making. Participants completed the Global Decision Making Scale (GDMS; Scott & Bruce, 1995) to assess general, habit-based tendencies and response patterns to situations that require a decision. The GDMS consists of five subscales each comprising five items, and uses a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The following subscales were used: *rational* ($\alpha = .82$; e.g., "I make decisions in a logical and systematic way"), *intuitive* ($\alpha = .80$; e.g., "When I make a decision, I trust my inner feelings and reactions"), *dependent* ($\alpha = .80$; e.g., "I rarely make important decisions without consulting other people"), and *avoidant* ($\alpha = .88$; e.g., "I postpone decision making whenever possible"). The GDMS factor structure has been replicated and factors are internally consistent (Loo, 2000; Scott & Bruce, 1995). This measure has been used with emerging adults (Galotti, 2007; Loo, 2000; Scott & Bruce, 1995), and

general decision-making styles have been shown to correlate with in vivo decision making (Galotti, 2007).

High School Grade Point Average. Participants provided their cumulative high school grade point average (HS GPA) and the scale used for the HS GPA (e.g., 4.0, 5.0, other value). All scores were standardized on a 4.0 scale. Self-reported GPA is generally reliable and valid, especially for high school values (vs. college) and for students at the higher end of achievement (e.g., those who matriculate to college; Kuncel, Credé, & Thomas, 2005).

College Functioning. Two subscales of the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1999) measured participants' academic functioning and adjustment to college. Participants indicated on a 9-point

Table 2. Items Removed During Exploratory Factor Analysis (EFA).

| | Reason for removal |
|--|--------------------|
| <i>Items removed during EFA Iteration 1</i> | |
| Purchases groceries or household items for me (i.e., not just provide money for these items) | Failed to load |
| Takes care of my personal errands or chores for me (e.g., laundry, car upkeep) | Failed to load |
| Likes to have a say in who I am friends with | Failed to load |
| Would frequently “pop in” in to check on groups of friends that I had over to my house | Failed to load |
| Likes to have a say in who I date | Failed to load |
| Asks about my class involvement | Failed to load |
| Likes to know the details of my daily schedule | Cross-load |
| Hovers over my personal life | Cross-load |
| Gets upset if she or he does not talk to me each day | Cross-load |
| Intervenes on my behalf with my teachers/professors | Cross-load |
| Intervenes on my behalf with school administrators | Cross-load |
| Schedules my classes for me | Cross-load |
| Asks about grade improvement | Cross-load |
| Helps me with my homework | Cross-load |
| Wants a copy of my courses’ syllabi | Cross-load |
| Knows my course schedule (e.g., times, buildings) | Cross-load |
| Knows my personal schedule | Cross-load |
| Has lobbied on my behalf to help me get a job | Cross-load |
| Decides what classes I take in college | Cross-load |
| <i>Items removed during EFA Iteration 2</i> | |
| Wants me to consult with them before making major decisions | Cross-load |
| <i>Items removed during EFA Iteration 3</i> | |
| Checks in with me every day | Cross-load |

scale (1 = *applies very closely to me*, 9 = *doesn't apply to me at all*) how much a given statement applied to them. The 24-item *academic achievement* scale ($\alpha = .88$) measured college students' productivity, timeliness, motivation, and general academic performance (e.g., “I'm not doing well enough academically for the amount of work I put in”). The 15-item *attachment* scale ($\alpha = .91$) measured students' sense of belonging to their particular college (e.g., “I am pleased now about my decision to go to college”). Scores were reversed such that larger scores indicated *better* achievement or adjustment. The SACQ is reliable and is associated with objective measures of college adjustment such as GPA and student attrition/retention (Baker & Siryk, 1999).

Procedure

All procedures were approved by the university's institutional review board. Participants were recruited from introductory psychology classes and received course credit as compensation for their time. After providing in-person consent, participants completed survey measures online that took approximately 45 minutes to complete.

Results

Missing Data

An examination of the 44 HP items indicated a small amount of missing data (mean percentage across items = 0.7%; no more than 1.3% on any one item). Little's MCAR test was nonsignificant ($\chi^2[1397] = 1474.35$, *ns*) suggesting data were likely missing at random. In line with recommendations (Graham, 2009), the expectation-maximization algorithm was used to impute missing data.

Data Reduction and Factor Structure

To determine the simple factor structure of the 44 HP items, an exploratory factor analysis (EFA) using maximum likelihood estimation and promax rotation was conducted in *Mplus v 7.2* (Muthén & Muthén, 2001-2014). The number of factors to retain was determined by examining the scree plot and considering interpretability of factors. Although other empirical tests were used to determine the number of factors to retain (i.e., Velicer's minimum average partial test [O'Connor, 2000], parallel analyses [Horn, 1965]), each of these indicated overextraction that would have resulted in uninterpretable factors. As such, an initial four-factor solution was retained. To identify the simple structure, an a priori decision rule was utilized such that specific items were said to load on a factor if their loadings were $\geq .40$ on one factor, but $< .20$ on all other factors (Costello & Osborne, 2005; Tabachnick & Fidell, 2001). Using these criteria, 6 items were removed that failed to load at or above .40 on any factor and 13 items were removed that cross-loaded (see Table 2). To ensure that removal of items did not result in a different factor structure, the EFA was recalculated using only the retained 25 items. Across two additional iterations, two cross-loading items were removed (Table 2).

The resulting 23-item solution comprised four factors (see Table 1 for factor loadings, communalities, and eigenvalues). The *Information Seeking* subscale has six items that assess the extent to which parents request information about their children's daily life as well as their academic and social functioning, including helping in decision making. The *Academic and Personal Management* subscale has nine items that assess the extent to which parents assist in the day-to-day academic work of the student as well as assist in

Table 3. Total Sample Helicopter Parenting Factor Intercorrelations and Means and Standard Deviations Across Participant Gender ($N = 377$).

| Factor | 1 | 2 | 3 | 4 | Women ($n = 250$), M (SD) | Men ($n = 116$), M (SD) | t (365) |
|-------------------------------------|-------|-------|-------|---|--------------------------------------|------------------------------------|-----------|
| 1. Information Seeking | — | | | | 4.38 (0.88) | 4.17 (0.91) | 2.18* |
| 2. Academic and Personal Management | .40** | — | | | 2.49 (0.94) | 2.76 (1.08) | -2.38* |
| 3. Direct Intervention | .28** | .55** | — | | 2.14 (1.09) | 2.40 (1.21) | -2.10* |
| 4. Autonomy Limiting | .16* | .44** | .54** | — | 2.18 (0.95) | 2.48 (1.00) | -2.77** |

Note. Analyses by gender represent a subset of $N = 366$, reflecting 11 participants who did not provide a response regarding their gender.
* $p < .05$. ** $p < .01$.

daily personal functioning like washing clothes or cleaning. The *Direct Intervention* subscale has four items that assess the extent to which parents involve themselves directly in both personal and professional relationships of the emerging adult. Finally, the *Autonomy Limiting* subscale has four items that assesses the extent to which parents structure the emerging adult's life such that mistakes are prevented. Factor scores were moderately, positively correlated in the EFA (see Table 3), suggesting that, according to youth perceptions, parents engaging in certain HP behaviors are also likely to engage in others. Means (separated by respondent gender), standard deviations, and intercorrelations of the four factors (using raw scores and not factor weighted scores) and total score are shown in Table 3.

Although there was insufficient power to conduct a multigroup analysis to test invariance of factor structure across participants reporting on female versus male caregivers, differences in means for factors based on caregiver gender were tested. Across the four factors and the total score, none differed based on whether students were reporting on perceptions of female or male caregivers, all $t(375) < |1.32|$, all $ps > .05$. Similarly, perceptions of parents for sons versus daughters were compared. Here, differences did emerge. As shown in Table 3, sons reported significantly higher *Academic and Personal Management*, *Direct Intervention*, and *Autonomy Limiting*, but lower *Information Seeking*, scores than did daughters. Considered as a whole construct, however, there was no difference on the total scores of all HP items retained between sons ($M = 3.01$, $SD = 0.83$) and daughters ($M = 2.87$, $SD = 0.70$), $t(364) = -1.74$, $p = .08$.

Dimensionality and Internal Reliability

One primary aim of the current study was to test whether HP is best considered unidimensional or multidimensional. Given the high correlations among factors in the EFA, a bifactor measurement model was fit that included the four HP factors found in the EFA described above as well as a general HP factor (on which all 23 HP items were specified to load). With bifactor models, all factors are specified to be

orthogonal to one another (Reise, 2012) meaning that we theorized that the information described in the factor correlations from the EFA are thought to be accounted for by a general HP factor. Model fit was tested using the following criteria indicating acceptable fit: comparative fit index (CFI) $> .90$, Tucker-Lewis index (TLI) $> .90$, root mean square error of approximation (RMSEA) $< .08$, standardized root mean square residual (SRMR) $< .08$ (Browne & Cudeck, 1993; Hu & Bentler, 1999).

This model converged on an acceptable fitting model across all indices of fit ($\chi^2[207] = 507.76$, $p < .01$; CFI = .93; TLI = .91; RMSEA = .06, 90% confidence interval [.06, .07]; SRMR = .06). In this model, all items loaded significantly on a general *Helicopter Parenting* factor (λ s ranged from .23 to .79, with most over .40). Notably, two items on the *Academic and Personal Management* factor loaded on the general *Helicopter Parenting* factor but failed to load significantly on the specific factor as they had in the EFA. Most other items on this specific factor were significantly reduced in size and several items reversed sign (i.e., λ s became negative, suggesting suppression). Overall, this pattern of findings strongly suggests that the *Academic and Personal Management* items are wholly subsumed under the broader general *Helicopter Parenting* factor (see Figure 1).

Regarding tests of multidimensionality and reliability within the bifactor model, several statistics were calculated. Because it is widely used, we calculated coefficient alpha for the general *Helicopter Parenting* factor and the specified subsfactors. Note, however, that alpha has been criticized, especially with regard to tests of multidimensionality (Cortina, 1993). As such, we also calculated estimates called omega statistics that are more appropriate for constructs theorized to be multidimensional (Canivez, 2016) and that are based on the assumption that models are congeneric, or that the items in the measurement model may not necessarily have the same level of precision or be measured on the same scale (Graham, 2006). One form of omega (ω ; McDonald, 1999) simply provides separate estimate of reliabilities for the general factor and the subscales. A second form of omega is potentially even more informative for the current study. Called *omega*

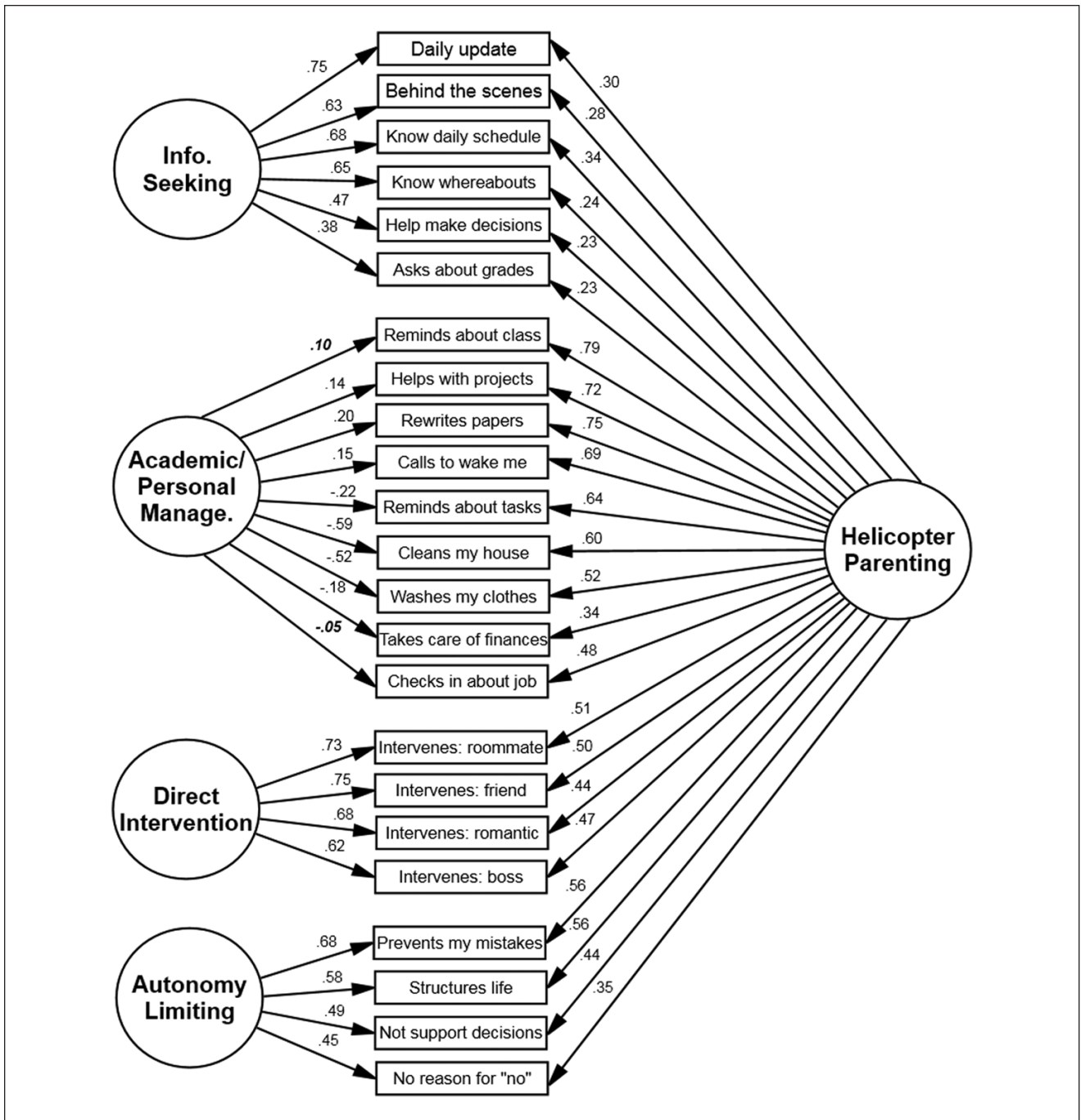


Figure 1. Bifactor model of helicopter parenting items.
 Note. Standardized loadings shown. Loadings in italics on the *Academic and Personal Management* factor were nonsignificant ($p > .05$).

hierarchical (ω_h ; Zinbarg, Barlow, & Brown, 1997; Zinbarg, Revelle, Yovel, & Li, 2005), this statistic allows one to essentially decompose a construct into its general and specific components and test the reliability of those components while controlling for the variances accounted for in the other. For instance, examining ω_h for the subscale scores while controlling for the general factors provides researchers with

information regarding which factor(s) should be interpreted (e.g., the higher order factor or the specific subfactors) and whether a construct should be conceptualized as primarily unidimensional or multidimensional. The use of omega and omega hierarchical in conjunction can be especially informative, as large discrepancies between omega and omega hierarchical for subscales may indicate that interpretation of the

Table 4. Reliability, Tests of Multidimensionality, and Associations With Other Facets of Parenting for the Helicopter Parenting Total Score and Subscales.

| | General HP factor | Information Seeking | Academic and Personal Management | Direct Intervention | Autonomy Limiting |
|--|-------------------|---------------------|----------------------------------|---------------------|-------------------|
| <i>Reliability coefficients</i> | | | | | |
| Alpha | .90 | .81 | .84 | .76 | .82 |
| Omega | .93 | .82 | .87 | .91 | .82 |
| Omega _h | .77 | .68 | .03 | .62 | .47 |
| ECV | .49 | .18 | .07 | .08 | .10 |
| <i>Correlations with facets of parenting</i> | | | | | |
| Care | -.37** | .25** | — | .00 | -.41** |
| Overprotection | .61** | .08 | — | .00 | .23* |
| Psychological control | .49** | .02 | — | -.02 | .33** |

Note. HP = helicopter parenting; Omega_h = Omega hierarchical statistic; ECV = explained common variance.

subscales is not informative above and beyond the general factor (Reise, 2012). Finally, a statistic called the explained common variance, or ECV, is a simple way to test dimensionality. It is “the ratio of variance explained by the general factor divided by the variance explained by the general plus the group factors” (Reise, 2012, p. 687). The larger the ECV, the more likely a construct is unidimensional, though no standard for what is “large” for ECV exists as of yet (Reise, 2012). Omega and ECV statistics were calculated using freeware from edpsychassociates.com.

Coefficient alphas, omegas, omega hierarchicals, and ECVs for the general HP factor and the four specific subscales derived from the EFA are found in Table 4. Coefficient alpha was acceptable for each subscale and, as expected given that alpha is dependent on number of items, was highest for the general HP factor. Likewise, ω values were generally high across the general HP factor and all subscales (all values above .80), indicating acceptable reliability for these factors. That said, an examination of ω_h indicated that when controlling for the general factor, the reliability of the *Information Seeking* and *Direct Intervention* subscales dropped somewhat, whereas the reliability of the *Autonomy Limiting* and especially the *Academic and Personal Management* subscales dropped significantly. In fact, the items in the *Academic and Personal Management* subscale appeared to be completely subsumed by, or rather indistinguishable from, the general HP factor. In comparison, ω_h for the general HP factor dropped only slightly, supporting the reliability of a total HP score composed of items from all four subscales. Regarding dimensionality, the ECV was under .50 suggesting that HP, as measured by these particular items, may not be wholly unidimensional despite the high ω_h . Overall, these results support the presence of a general HP factor composed of a combination of items that appear both supportive and helpful in nature (e.g., seeking out information about the youth’s life; directly helping with day-to-day academic and personal functioning) but also that may limit

autonomy (e.g., directly intervening with social contacts or structure a youth’s life). Results also support that the specific domains of HP (namely *Information Seeking*, *Direct Intervention*, and *Autonomy Limiting*) account for reliable variance over and above the general HP factor and may provide useful information when considered alone.

Uniqueness of HP Compared With Other Forms of Parenting

Of importance regarding the content and structure of HP is whether HP merely reflects commonly studied and well-accepted facets of parenting or if it is a unique blend of parenting behaviors. For instance, some items on the *Autonomy Limiting* subscale described above may simply reflect parental overprotection or psychological control, whereas some items on the *Information Seeking* subscale may reflect parental care, responsiveness, or warmth. As such, using structural equation modeling (SEM), we examined correlations of the general HP factor and HP subscales (from the bifactor model) to measures of perceived parental warmth, overprotection, and psychological control. Given the unreliability of the *Academic and Personal Management* factor, it was not considered in these analyses.

With one exception, the HP general factor was most strongly related to other aspects of parenting. Specifically, greater HP was associated with significantly higher perceptions of parental overprotection and psychological control and lower levels of perceived care. The *Autonomy Limiting* subscale by itself showed a similar pattern as did HP. In contrast, *Information-Seeking* behaviors not part of the HP general factor (i.e., the subscale) were positively associated with parental care, but unrelated to overprotection or psychological control. This suggests that some HP behaviors may be perceived as warm, potentially when done in isolation from other HP behaviors. The *Direct Intervention* subscale was unrelated to parenting.

Table 5. SEM Measurement Models and Standardized Structural Parameter Results: Latent Helicopter Parenting Factors Simultaneously Predicting Manifest Emotional Functioning, Decision-Making Style, and Academic and College Functioning Outcomes.

| Dependent variable | Independent variables | | | | | | | |
|---|-----------------------|---------|---------------------|---------|---------------------|--------|-------------------|-------|
| | General HP factor | | Information Seeking | | Direct Intervention | | Autonomy Limiting | |
| | β | t | β | t | β | t | β | t |
| <i>Emotional Functioning</i> CFI = .92; TLI = .91; RMSEA = .06, 90% CI [.05, .07]; SRMR = .06 | | | | | | | | |
| Depression | .19 | 3.58** | -.01 | -0.23 | .09 | 1.48 | .00 | 0.01 |
| Anxiety | .31 | 6.05** | -.07 | -1.21 | .11 | 1.85 | -.06 | -0.85 |
| <i>Decision-Making Style</i> CFI = .93; TLI = .91; RMSEA = .06, 90% CI [.05, .06]; SRMR = .06 | | | | | | | | |
| Rational | -.12 | -2.16* | .30 | 5.62** | -.12 | -2.11* | .01 | 0.09 |
| Intuitive | -.00 | -0.04 | .22 | 4.00** | -.09 | -1.48 | .03 | 0.41 |
| Dependent | .11 | 2.00* | .10 | 1.80 | -.08 | -1.41 | -.02 | -0.34 |
| Avoidant | .27 | 5.24** | -.18 | -3.17** | -.07 | -1.30 | .13 | 2.01* |
| <i>Academic and College Functioning</i> CFI = .93; TLI = .91; RMSEA = .06, 90% CI [.05, .06]; SRMR = .06 | | | | | | | | |
| High School GPA ^a | -.07 | -1.16 | .18 | 3.05** | .09 | 1.42 | -.04 | -0.53 |
| Academic Achievement | -.23 | -4.28** | .19 | 3.39** | -.02 | -0.34 | -.12 | -1.90 |
| Attachment to College | -.14 | -2.54* | .21 | 3.69** | .01 | 0.24 | -.06 | -0.88 |

Note. SEM = structural equation modeling; HP = Helicopter Parenting; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; GPA = grade point average; CI = confidence interval. A separate structural model was run for each family of dependent variables (indicated in italics above). All independent variables were entered simultaneously in analyses. For ease of presentation only standardized betas and *t* values shown. Full model results available from the corresponding author.

^aFor high school GPA, there were missing data or the inability to scale GPA on a traditional 4.0 scale for 34 participants. Missing data in this model were handled using full information maximum likelihood.

* $p < .05$. ** $p < .01$.

Given the moderate to high correlations of the HP general factor with overprotection and psychological control, we tested whether HP was statistically distinct from these other measures. Specifically, the model in which the correlations between HP and each of these facets of parenting was allowed to be freely estimated was compared with a model in which each of these correlations was fixed to one. If the constrained model did not fit significantly worse than the free model, this would indicate that HP and the parenting facet of interest were statistically indistinguishable. Models were tested separately for overprotection and psychological control and used a Wald test for model constraints. The model fit significantly worse when the correlation between HP and overprotection (Wald $\chi^2[1] = 73.02, p < .001$) and psychological control (Wald $\chi^2[1] = 69.84, p < .001$) were constrained to one. Overall, although the general factor of HP is associated with other facets of parenting, it does appear to be a distinct construct that is unique from various facets of parenting.

HP in Relation to Emotional Functioning, Decision Making, and College Functioning

Using SEM, we tested whether HP or its various components were associated with aspects of emotional functioning (as a replication of past work) or to decision-making style

or academic/college functioning (to extend past work). Specifically, total scores of relevant dependent variables were included as manifest variables in the model and were regressed on the *Information Seeking*, *Direct Intervention*, and *Autonomy Limiting* subfactors, as well as the HP total factor score. Again, paths from the *Academic and Personal Management* factor to dependent variables were not estimated in the models given the unreliability of that factor. For ease, three models were run within “families” of dependent variables: (a) Emotional Functioning, (b) Decision Making, and (c) Academic and College Functioning. It is possible that age or year in school may influence results, given that HP behaviors may look different as emerging adults are out of the house longer. Age and year were not, however, associated with either the HP total factor score or any of the subfactors (correlations ranged from $-.09$ to $.10$, all $ps > .09$). All SEM models described below were run controlling for age and year in school; primary results did not differ with these covariates included or excluded (though fit was lower given the nonsignificant relations between covariates and dependent variables). Results, unadjusted for age or year in school, are shown in Table 5.

Emotional Functioning. The overall model fit the data well. Replicating past work and consistent with hypotheses, higher scores on the general HP factor were associated with

greater levels of depressive and anxiety symptomatology. None of the individual subfactors were associated with emotional functioning over and above the general HP factor (see Table 5).

Decision-Making Style. Although the overall model again fit the data adequately, a nuanced pattern of relations between HP and certain decision-making styles emerged. Effects were most common with the general HP factor and suggested that HP was associated with less adaptive decision making. Specifically, greater HP was associated with students endorsing a more dependent and avoidant, as well as less rational, decision-making style (the general HP factor was unrelated to an intuitive style).

In contrast, over and above the general HP factor, the *Information Seeking* subfactor was associated with a more adaptive decision-making style. Specifically, students who indicated that their parents engaged in more *Information-Seeking* behavior also reported a significantly more rational and intuitive, as well as less avoidant style. No relations between *Information Seeking* and a dependent style emerged. Finally, two other significant relations emerged with subfactors and decision-making styles. Scores on the *Direct Intervention* subfactor were inversely associated with rational decision making, whereas the *Autonomy Limiting* subfactor was positively associated with levels of avoidant decision making. No other significant relations of subfactors to decision-making styles emerged (Table 5).¹

Academic and College Functioning. With one exception, and contrary to hypotheses, the HP general factor and subdomains were unrelated to the most objective measure of academic functioning in the current study: HS GPA. That said, perception of parental *Information Seeking* (not subsumed by general HP) was positively related to HS GPA. In contrast, the general HP factor was associated with poorer academic achievement and attachment to college on the SACQ. Again, over and above the general HP factor, *Information Seeking* was uniquely associated with better functioning in these domains.

Summary. Taken together, results generally suggested that helicopter parenting (as measured by the general HP factor) was associated with poorer outcomes in the domains of emerging adults' emotional functioning, decision-making style, and academic/college functioning. When done outside of other HP behaviors, *Information-Seeking* behaviors seemingly related to *better* functioning in the domains of decision-making style and academic/college functioning (but have no association with emotional functioning). Other subfactors of HP were not consistently associated with outcomes over and above the effects of the general HP factor.

Discussion

The goals of the current study were to test the dimensionality, reliability, and correlates of HP behaviors as perceived by emerging adults. EFA results suggested a four-factor model that encompassed varying levels of parental involvement in the personal and professional lives of their children. Involvement ranged from parents simply wanting information about their children's lives to directly intervening with their children's friends, employers, and teachers. A bifactor model of HP, however, suggested that HP is best considered multidimensional with one overarching factor and three reliable subfactors (*Information Seeking*, *Direct Intervention*, and *Autonomy Limiting*). Greater HP, as perceived by emerging adults at least, does not appear to be the same construct as perceived overprotection, psychological control, or low warmth, despite some positive associations with these constructs. Supporting the validity of the HP construct, the general HP factor broadly correlated in expected ways with other reports of poorer functioning in emotional, decision-making, and academic domains. Importantly, parental behaviors like seeking out information on the daily lives of their child or asking about grades are sometimes perceived as HP. When not also accompanied by more overt intervening and autonomy-limiting behaviors, such information-seeking behaviors are actually associated with emerging adults perceiving their parents to be *more* caring and are related to *better* decision-making and academic performance.

A Bifactor Model of Helicopter Parenting

One major contribution of the current study was testing the multidimensional nature of HP. Extant work assessing HP has assumed (LeMoyne & Buchanan, 2011) or empirically identified (Padilla-Walker & Nelson, 2012; Schiffrin et al., 2014) a unidimensional structure of this construct, despite some conflicting evidence that HP is likely multidimensional (Segrin et al., 2012). Our empirically based approach suggested that a bifactor structure best fits the data. Specifically, there appears to be an overarching and reliable construct of HP composed of several wide-ranging behaviors such as parents' academic and time management assistance, direct involvement in personal and professional relationships, seeking out of personal information, and autonomy-limiting behaviors like failing to support youths' decisions. Despite the fact that information-seeking behaviors were clearly more prevalent than other HP behaviors, the emergence of an overarching HP factor suggests that if emerging adults perceive parents as demonstrating more active helicopter behaviors (e.g., directly intervening with a professor) such parents were also likely to be highly engaged in less active behaviors (e.g., wanting daily updates).

Although an overarching HP factor emerged (suggesting unidimensionality), some of these parenting behaviors also appear to comprise unique or separate subfactors distinct from the general HP. In particular, reliable subfactors corresponding to *Information Seeking*, *Direct Intervention*, and slightly less reliably, *Autonomy-Limiting* behaviors emerged in our analyses. Supporting the validity of this structure, several of the HP subfactors that emerged corresponded to the four factors identified by Segrin et al. (2012) using parent report. For instance, items on our *Autonomy Limiting* factor (e.g., “My parent never allows me to make my own mistakes”) were similar to reverse-scored items on Segrin et al.’s *Child Self-Direction* factor (e.g., “I am willing to let my child take some chances in life”). Our work builds on Segrin et al.’s because understanding HP from an emerging adult’s perspective is important given evidence that parents may tend to report on their own parenting more favorably than in reality (Schwarz, Barton-Henry, & Pruzinsky, 1985). Overall, our study is the first to our knowledge to test a bifactor model of HP from the perspective of emerging adults, suggesting the presence of a reliable general HP factor and several reliable subfactors.

Helicopter Parenting Is Not the Same as Other Parenting Facets

A second contribution of the current study was to test whether HP merely reflects commonly studied and well-accepted facets of parenting such as overprotection, psychological control, and perceived warmth or if it is a unique blend of parenting behaviors. As other recent studies have suggested (LeMoyné & Buchanan, 2011; Padilla-Walker & Nelson, 2012; Schiffrin et al., 2014; Segrin et al., 2012), and supported by our data, “helicopter parenting” appears to be a reliable and valid construct that represents a unique constellation of parenting behaviors different from other well-established parenting constructs. Consistent with the notion that HP is specifically different from overprotective or psychologically controlling parenting (Schiffrin et al., 2014), HP was found to be statistically distinct from these constructs in the current study. Indeed, HP was at best only moderately associated (sharing roughly 36% of variance) with a commonly used measure of emerging adults’ perceptions of overprotective parenting in the current study (Parker et al., 1979). Notably, the separate *Autonomy Limiting* subfactor was also uniquely associated with greater perceived overprotection and psychological control.

HP also appears to be composed of certain behaviors like information seeking that consist of involvement and emotional support (Padilla-Walker & Nelson, 2012). As shown in our bifactor modeling, these types of behaviors do contribute (albeit less strongly as shown by the factor loadings) to a general HP factor, but also hang together quite strongly as a reliable subfactor of HP. And as described in greater

detail below, it appears that when these behaviors are done in the context of other types of HP behaviors, detrimental outcomes may result. This, despite the fact that when done in isolation (i.e., the information seeking subfactor) such behaviors were *positively* correlated with perceptions of parental care in our data. Considering past work together with the findings of the current study, it does appear that Padilla-Walker and Nelson’s (2012) argument is supported by empirical evidence that HP is an amalgamation of known parenting behaviors like high involvement (direct with the child and on behalf of the child), high control, and low autonomy granting across multiple contexts. HP may be a concise way to conceptualize multiple parenting behaviors particularly germane to the experiences of emerging adults as they transition to independence.

Helicopter Parenting Is Generally Related to Difficulties in Emotional, Decision-Making, and Academic Functioning

A third contribution of the current study was testing relations of HP, and its subfactors, to other broader aspects of emerging adults’ lives. Overall, two notable patterns emerged from our structural equation analyses. First, across domains of functioning and over and above subfactor scores, the general HP factor was generally associated with poorer outcomes. Specifically, and consistent with both hypotheses and past work (Schiffrin et al., 2014; Segrin et al., 2013), perceived HP was associated to both greater depression and anxiety (with the relation stronger for the latter). We did not test mechanisms of relations, and our cross-sectional data limit statements of causality. However, to the extent that HP behaviors stifle emerging adults’ autonomy or control, or carry an implicit assumption that the child’s input in his or her own life cannot be trusted, internalizing symptomatology may emerge. Indeed, lower perceptions of control, autonomy support, and self-efficacy have each been associated with increased symptoms of depression and especially anxiety (e.g., Chorpita & Barlow, 1998; La Guardia, Ryan, Couchman, & Deci, 2000). Of course, we acknowledge that emerging adults high in either anxiety or depressive symptoms may elicit greater involvement from parents (or simply perceive more HP) if the day-to-day stress of life is seemingly overwhelming and parents attempt to ease such struggles. Our data, in combination with past work (Schiffrin et al., 2014; Segrin et al., 2013), clearly establish a correlation between HP and anxiety and depression, warranting prospective studies of these relations in the future.

To extend the literature, HP’s relations to decision making and academic functioning were explored. Once again, the general HP factor, but not individual subscales (with two exceptions), was related to poorer outcomes for emerging adults. Specifically, HP behaviors were associated with

a more dependent and avoidant—but less rational—decision-making style. As ours is the first study to our knowledge to show a direct relation between HP and decision-making style, it is unclear exactly why such a relation exists. Theoretically, however, it seems plausible that if prevented from making decisions on their own over the course of development because parents engage in HP behaviors, some emerging adults may have developed a need to rely on others when faced with important decisions later in life or simply avoid them as much as possible. Empirical work does suggest that emerging adults who perceive their parents as more authoritarian and less responsive, also report relying on peers for decision making more than other emerging adults (Bednar & Fisher, 2003).

Perhaps surprising to the parents who engage in them, behaviors like helping complete school projects and reminding students about exams (some of the highest loading behaviors on the general HP factor) were seemingly counterproductive given that they were associated with lower perceived college academic achievement and a weaker attachment to college. Presumably, parents hover with the expectation that such an intervention is beneficial to the emerging adult or provides a pathway to successful outcomes. Students who have relied on parents' help to manage their academic and personal lives might not have developed the skills to do so when more independence is needed (e.g., in college). Alternatively, emerging adults who are struggling academically may be eliciting more active assistance from parents in this domain. Interestingly, the general HP factor was not related to GPA (consistent with Odenweller et al., 2014). Given that this was the only truly objective measure of academic performance, one intriguing possibility is that HP interferes with an emerging adult's perceived academic identity or self-efficacy rather than their actual performance in the classroom. Perhaps HP behaviors send subtle messages about individual academic self-efficacy—or lack thereof—that youth internalize. Regardless, our study provides new evidence that HP is associated with disruptions in emerging adults' reported cognitive and academic performance, adding to past findings that children of helicopter parents are less engaged in school (Padilla-Walker & Nelson, 2012) and may not develop critical thinking (Hunt, 2008).

The second notable pattern was that not all behaviors that might be considered part of HP appear to be associated with negative outcomes. Although loading on the general HP factor, *Information-Seeking* behaviors outside of the general HP factor were uniquely associated with better outcomes like greater perceptions of parental care, more rational and intuitive decision making, and better academic outcomes (including being the only facet of HP being related to GPA, our most objective marker of academic performance, for better or for worse). Information-seeking behaviors might be considered less invasive and

subsequently reflect responsive and engaged parenting, which has been associated with better functioning in several domains (e.g., Strand, 2000). Reconciling these findings raises interesting possibilities that, although beyond the scope of the current article, may be a fruitful area of future research. Potentially, parents who engage in high information-seeking behaviors absent of other HP behaviors may have children who function well across multiple domains. When in combination with other behaviors characteristic of HP, information-seeking behaviors may be interpreted as simply “more of the same” and may be detrimental. The general HP factor would suggest as such. Our findings are similar to the way that parental monitoring has been associated with perceived positive parenting behaviors (e.g., care and attention) when enacted by authoritative parents but associated only with controlling behaviors (e.g., rule-setting) when enacted by authoritarian parents (Timmerman et al., 2013). What the ratio of such behaviors must be or how information seeking crosses the threshold from potentially helpful to harmful is an intriguing question for future studies.

Limitations and Future Directions

The current study's findings should be interpreted in light of its limitations. First, a considerable limitation is that cross-sectional, retrospective data limit statements of causality. When children struggle in any domain of functioning, parents may feel compelled to “swoop” in and help. Longitudinal work is needed to tease apart directionality. Likewise, participants were not given a particular time frame on which to focus regarding their report of HP behaviors. It is possible that HP behaviors differentially effect outcomes at various points during development. For example, although *Information-Seeking* behaviors were generally seen as positive by participants in this sample, such behaviors done even earlier in development may not be appropriate if they are viewed as the parent trying to befriend their child rather than monitor or parent them. Second, HP was only assessed for the primary caregiver. Although we had sufficient numbers of individuals reporting on mothers versus fathers to test for differences in perceptions of these behaviors (finding none to be significant), we were unable to test for within-family differences. Similarly, although our study was the first to test for sex differences between sons' and daughters' perceptions of the HP they receive (finding that daughters perceived more *Information-Seeking* behaviors from parents, whereas sons perceived more *Academic and Personal Management*, *Direct Intervention*, and *Autonomy-Limiting* behaviors), we were unable to examine whether perceptions differ based on specific composition of child–parent dyads (e.g., father–daughter, etc.). Doing so will be important in future studies given some known differences in

parenting behavior based on both gender of parent and child (Lytton & Romney, 1991) and sex differences in perceptions of parenting that emerge as children transition from adolescence to young adulthood (Tsai, Telzer, & Fuligni, 2013). Third, our sample was homogenous with regard to ethnic and racial identity. Whether HP behaviors function in the same way across families from different backgrounds will be important to test because of known differences in parenting style and outcomes across cultural background (Garcia Coll & Pachter, 2002). Finally, some behaviors assessed by our HP items (e.g., rewriting papers) are obviously applicable only to students in school. Whether the other behaviors apply to nonstudents requires further study, especially given that behaviors characteristic of the developmental period of emerging adulthood may be a by-product of the context in which the individual lives (Arnett, 2000). Likewise, our sample was composed of mainly students living away from home. HP behaviors may be experienced differently by emerging adults still living in the home despite enrollment in college. On the one hand, closer proximity may provide parents more avenues for engaging in HP behaviors. Conversely, HP behaviors may actually be viewed as more intrusive by youth living out of the home because they might assume physical distance would result in less direct intervention on the part of parent.

Despite these limitations, the current study provided strong support for the reliability and validity of a bifactor model of HP. If parents are engaging in helicopter behaviors in order to provide advantages to their adult children, our data would suggest that most of these behaviors are disadvantageous. Generally, we replicated findings that HP behaviors may have negative effects for emerging adults in the realm of emotional functioning, and extended the literature to show negative effects in domains like decision making and actual academic performance. Importantly, HP appears multifaceted, with some behaviors that are less invasive on the part of the parent actually being related to positive outcomes when done outside of the realm of other more invasive behaviors. Our data suggested that parents may need to be mindful of what, when, and how much support and assistance they provide as their children transition to independence.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Dr. Luebbe is supported by the Miami University Robert H. and Nancy J. Blayney Professorship.

Note

1. Students living at home with parents may experience HP differently. Given that only 10 participants in our sample lived at home during the study, we were unable to test living status as a moderator in results. Calculating the structural regressions with the subsample of students not living at home, the patterns of results remained the same with one exception. The significant association between the Autonomy Limiting sub-factor and avoidant decision making in the full sample ($\beta = .13, t = 2.01, p = .044$) became nonsignificant ($\beta = .11, t = 1.91, p = .056$) in the subsample living away from home.

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