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Helicopter Parenting, Autonomy Support, and College Students' Mental Health and Well-being: The Moderating Role of Sex and Ethnicity

Chrystyna D. Kouros,

Department of Psychology, Southern Methodist University, P. O. Box 750442, Dallas, TX 75275.

Megan M. Pruitt,

Department of Psychology, Texas Christian University, Fort Worth, TX

Naomi V. Ekas,

Department of Psychology, Texas Christian University, Fort Worth, TX

Romilyn Kiriaki,

Department of Psychology, Southern Methodist University, Dallas, TX

Megan Sunderland

Department of Psychology, Southern Methodist University, Dallas, TX

Abstract

Whereas parental involvement is consistently linked with positive child outcomes throughout development, parental involvement that is not developmentally appropriate and intrusive--a style of parenting called helicopter parenting--can be problematic for their child's adjustment and well-being. Helicopter parenting can be particularly harmful during emerging adulthood when young adults are working toward developmental goals of self-reliance and autonomy. The purpose of this study was to examine sex differences in the relation between helicopter parenting and autonomy support on college students' mental health and well-being. A secondary aim was to explore the extent to which there were ethnic differences (non-Hispanic White vs. Hispanic) in associations between parenting and college students' outcomes. We examined several domains of mental health, including dysphoria symptoms, social anxiety, and general well-being. A sample of 118 undergraduate students ($M_{age} = 19.82$ years, $SD = 1.38$; 83.1% female; 57% European American) completed measures of parenting and mental health and well-being. The results showed that higher levels of helicopter parenting predicted lower levels of well-being for females, whereas higher levels of autonomy support predicted lower levels of dysphoria symptoms and social anxiety among males. No ethnic differences were found. The findings highlight that parents' behavior

corresponding author C. D. Kouros ckouros@smu.edu.

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Compliance with Ethical Standards

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continues to predict their child's well-being even in emerging adulthood, and that parenting may differentially predict male and female college students' mental health outcomes.

Keywords

helicopter parenting; autonomy support; mental health; well-being; college students

Introduction

Many college students are still dependent on their parents, particularly for emotional and social support (Guan & Fuligni, 2015; Holahan, Valentiner, & Moos, 1994; Nelson & Barry, 2005). Whereas parental involvement has been consistently associated with positive child outcomes throughout development (e.g., Amato & Fowler, 2002; Smokowski, Bacallao, Cotter, & Evans, 2015), a challenge for parents is adapting to the changing developmental needs of their emerging adult child and modifying their level of involvement during their child's college years. Parental involvement that is not developmentally appropriate and intrusive--a style of parenting called helicopter parenting--can be problematic for their child's adjustment and well-being (e.g., Schreffin et al., 2014; LeMoyne & Buchanan, 2011).

Although the concept of helicopter parenting first gained traction in the popular press based on anecdotal evidence (e.g., Gabriel, 2010), it has gained empirical support in recent years as a style of parenting that is characteristic of some parents of emerging adult children. Helicopter parenting is a pattern of parenting that includes high levels of warmth and support, but also high levels of control and low autonomy granting (Padilla-Walker & Nelson, 2012); it is also known as "overparenting" or "over-controlling parenting," and these parents are sometimes referred to as "black hawks" (Padilla-Walker & Nelson, 2012; Segrin, Givertz, Swaitkowski, & Montgomery, 2015). Specifically, helicopter parents are overly involved in their child's lives and intervene to make decisions and solve problems for their child. Whereas some parental protection of their children is a positive quality, helicopter parenting occurs in situations that do not warrant parental involvement. For example, a parent may contact their child's professor to dispute their child's low grade or contact a potential employer to negotiate their child's job offer and salary.

Padilla-Walker and Nelson (2012) conducted a factor-analysis of college students' and their parents' reports of parenting behaviors and found that, although related, helicopter parenting is a conceptually distinct construct from behavioral control and psychological control; the primary differentiating factor is that parents engage in helicopter behaviors out of concern for their child's well-being and success. Paradoxically, this parenting behavior can potentially harm their child by not allowing them to achieve developmentally appropriate goals that are critical for successful adjustment to adulthood. Emerging adulthood and the transition to college is a developmental period characterized by self-exploration, increasing self-reliance, and establishing a relationship with their parents in which they are viewed as an equal adult (Arnett, 2000; Nelson et al., 2007). Thus, helicopter parenting during emerging adulthood can interfere with and inhibit young adults' ability to achieve these important developmental goals (Arnett, 2014). For example, college students who reported

higher levels of perceived helicopter parenting also reported lower self-efficacy (Bradley-Geist & Olson-Buchanan, 2014; Givertz & Segrin, 2014; Odenweller, Booth-Butterfield, & Weber, 2014), lower internal locus of control (Kwon, Yoo, & Bingham, 2016), and a higher sense of entitlement (Segrin, Woszidlo, Givertz, Bauer, & Murphy, 2012).

Although in its nascent stages, helicopter parenting has become a burgeoning area of research in the last half decade. The research to date shows that helicopter parenting is related to a host of negative outcomes among college students, including poor academic achievement, lower self-esteem and life satisfaction, poor peer relationships, and greater interpersonal dependency (Kim, Wang, Orozco-Lapray, Shen, & Murtuza, 2013; Klein & Pierce, 2009; Odenweller et al., 2014; Padilla & Nelson, 2012; Schreffin et al., 2014; Segrin et al., 2015; van Ingren et al., 2015). For example, Padilla-Walker and Nelson (2012) found that although helicopter parenting was related to some positive parent-child relationship qualities, such as feeling emotionally supported and feeling like their parent provided guidance and advice, it also predicted less engagement in school. Further, helicopter parenting has been linked to higher anxiety and depressive symptoms among emerging adults, as well as an increased likelihood for prescription drug misuse (Schreffin et al., 2014; LeMoyne & Buchanan, 2011).

In contrast, autonomy support is a parenting behavior in which parents encourage developmentally appropriate independence in their child and instill confidence in their child's capacity to make decisions and actively solve problems (Grolnick & Ryan, 1989; Soenens et al., 2007). Autonomy support is a key component to successful adulthood, as it facilitates developmental goals of achieving self-reliance. Studies have shown that autonomy support is related to better adjustment among college students including higher self-esteem and lower levels of depressive symptoms, cross-sectionally (Cullaty, 2011; Jackson, Pratt, Hunsberger & Pancer, 2005; La Guardia, Ryan, Couchman, & Deci, 2000; Lokes, Gingras, Philippe, Koestner, & Fang, 2009) and longitudinally (Van der Giessen, Branje, & Meeus, 2014). Helicopter parenting and autonomy support parenting are likely orthogonal constructs (Soenens & Vansteenkiste, 2010; Vansteenkiste & Ryan, 2013), and therefore, the absence of helicopter parenting behaviors does not imply that the parent is engaging in autonomy support parenting. Thus, it is important to examine both dimensions of parenting in emerging adulthood.

One potential theoretical explanation for the relations found between helicopter parenting and autonomy support in predicting emerging adults' mental health and well-being is provided by self-determination theory (Deci & Ryan, 2008; Ryan & Deci, 2000). According to this theory, there are three innate human needs that are involved in an individual's healthy adaptation and functioning. These include a need for autonomy (feeling one has volitional control in making one's own decisions), competence (feeling confident in one's abilities and accomplishments; e.g., self-efficacy), and relatedness (feeling that one is connected to others in genuine and caring relationships). Thus, helicopter parenting threatens emerging adults' ability to achieve these needs, particularly autonomy and competence. Supporting this theoretical explanation, Schreffin et al. (2014) found that a lower sense of personal autonomy and competence mediated the cross-sectional relation between helicopter parenting and college students' levels of depression and life satisfaction. Moreover, the notion that

autonomy is an innate human goal is supported by the fact that autonomy support is related to better well-being across cultures (Chirkov & Ryan, 2001; Manzi, Regalia, Pelucchi, & Fincham, 2012; Sheldon, Abad, & Omoile, 2009). For example, Manzi et al. (2012) found that the promotion of autonomous decision-making was negatively related to depressive symptoms among first-year university students in four different countries (US, Belgium, Italy, and China).

Of course, as is the case with many family-related variables, not all college students who experience helicopter parenting are at risk for maladjustment, and there is considerable variability in the link between parenting and child outcomes. Thus, an important research direction is to examine moderators of this association; that is, which young adults are most likely to report decreased mental health and well-being in the context of helicopter parenting and low autonomy support? In the present study, we examined biological sex (male vs. female) and ethnicity (non-Hispanic White vs. Hispanic) as potential moderators. There are several reasons for testing for sex differences in this relation. First, females are twice as likely as males to evidence internalizing psychological problems such as depression and anxiety (Hankin et al., 1998), suggesting that links between parenting may be a stronger predictor of mental health for females as compared to males. Second, although studies of younger children and adolescents often test for sex differences in the relation between parenting and child outcomes, few examinations of sex differences have been conducted in emerging adulthood. In one study of college students, authoritarian and permissive parenting predicted more impulsive and problematic drinking for college females only (Patock-Peckham & Morgan-Lopez, 2006). Barton and Kirtley (2012) tested increased stress and anxiety as mediators of the association between parenting and college students' depressive symptoms and found that, for female students only, mothers' authoritarian parenting (high control and low support) predicted greater depressive symptoms via greater anxiety. Permissive parenting (low control and moderate support), in contrast, increased stress which led to increased depressive symptoms. These mediation models, however, were not tested for males, given a lack of an association between authoritarian and permissive parenting behavior and males' depressive symptoms. Thus, the limited research on emerging adults in this area suggests that parenting characterized by either over-controlling parenting behaviors or lax parenting increases risk for maladjustment, particularly among females.

Third, there is also theoretical support for expecting sex differences in relations between parenting and emerging adults' mental health. The gender intensification hypothesis (Hill & Lynch, 1983) has been implicated as an explanation for why family processes may differentially affect males and females in adolescence (e.g., marital conflict; Davies & Lindsay, 2001). According to this hypothesis, physical changes due to puberty simultaneously motivate (1) increased parental socialization of conventional gender roles, and (2) increased awareness of gender-related sex roles among adolescents (Davies & Lindsay, 2001; Hills & Lynch, 1983). For males, socialization of gender appropriate roles manifests itself as encouragement to be more independent, autonomous, and assertive. For females, however, socialization of gender roles includes increased attention to promoting interpersonal connections and caring for others. Females' orientation toward interpersonal relationships may serve as a vulnerability factor for psychological problems in the context of dysfunctional family interactions (Davies & Lindsay, 2004). Extrapolating this theory to

parenting, females would also be more vulnerable to adverse mental health outcomes when helicopter parenting is high and autonomy support is low compared to males. Whether the relations posited by the gender intensification hypothesis continue past adolescence into emerging adulthood, however, remains an empirical question.

With regard to ethnicity, the majority of studies on helicopter parenting have been conducted with primarily European-American samples, and the lack of diversity in samples is frequently highlighted as an important direction for future research (Barton & Kirtley, 2012; Padilla & Nelson, 2012; Nelson, Padilla-Walker, Christensen, Evans, & Carroll, 2011; Odenweller et al., 2014; Schriffin et al., 2014; Segrin et al., 2015). Importantly, self-determination theory would posit that helicopter parenting and autonomy support should have similar effects on children's adjustment, regardless of ethnicity, as the individual needs for autonomy and relatedness, for example, are universal. Indeed, using data from the National Survey of Families and Households, Amato and Fowler (2002) did not find ethnic differences in the link between parenting behaviors of support, monitoring, or harsh punishment and child outcomes among a group of elementary school and adolescent-aged children. Similarly, Mounts (2004) did not find racial or ethnic differences in levels of autonomy-granting when comparing White, African American, and Latino youth. In contrast, the cultural values model (Lamborn & Felbab, 2003) posits that links between parenting practices and child outcomes may differ across cultural groups because parenting behaviors are interpreted in the context of one's cultural family socialization processes. For example, cultures may vary in their views of the appropriate amount of independence children should be granted (Bulcroft, Carmody, & Bulcroft, 1996). Lanza, Huang, Murphy, and Hser (2012) found that African American and Latino youth were more likely to report that their mothers' parenting was characterized as being low in responsiveness and high in autonomy-granting. However, ethnic differences in levels of parenting do not necessarily imply that the relation between parenting and child outcomes will differ for White young adults as compared to young adults from other ethnic or racial backgrounds.

The present study adds to the extant literature by examining the extent to which the relation between helicopter parenting and autonomy support in predicting college students' adjustment differed for males as compared to females. A secondary aim was to explore ethnic differences (non-Hispanic White vs. Hispanic) in the relation between parenting and mental health in emerging adulthood. We examined several domains of college students' mental health, including depressive symptoms, social anxiety, and general well-being. We predicted that the positive relation between helicopter parenting and depressive symptoms and social anxiety, and the negative relation between helicopter parenting and well-being would be stronger for females compared to males. Further, we predicted that autonomy support would be related to less depressive symptoms and social anxiety and higher levels of well-being and that these relations would also be stronger for females compared to males. Given the lack of prior research on racial or ethnic differences in relations between parenting practices and well-being in emerging adults, this research aim was exploratory.

Method

Participants

Participants were 118 undergraduate students recruited from two mid-size private universities in the Southwest. Inclusion criteria were that students were between the ages of 18–25, corresponding to the emerging adulthood period of development. On average, participants were 19.82 years olds ($SD = 1.38$), and the majority were female (83.1%). Students were 57% European American, 36.5% were Hispanic/Latino/Mexican American, 0.8% were African American, 2.5% were Asian, and the remaining three students reported their race as “Other.” The majority of students lived on campus (67.8%), 23.7% lived in their own apartment near campus, and 6.8% lived at home with their parents. Most students reported that they lived with both parents during childhood and adolescence (86.4%); 6.8% lived with their mother only, 1.7% lived with their father only, 2.5% lived with their mother and a stepfather/significant other, 1.7% divided their time between two divorced parents, and one student reported living the majority of the time at boarding school.

Procedure

Participants were recruited from both universities’ psychology subject pool database. Students were registered in psychology courses and received course credit or extra credit for their participation. Students completed questionnaires online, using the Qualtrics web-based survey software. Students then scheduled a 90-min laboratory visit, in which they completed additional questionnaires, a computer task unrelated to the current study, and a brief semi-structured clinical interview. Only the measures pertinent to the present study are described below, and were part of the online survey. The study procedure was approved by the Institutional Review Boards at both universities, and students provided informed consent.

Measures

Parenting.—Students completed the Helicopter Parenting Behaviors Questionnaire (Schiffrrin et al., 2014), which is a 15-item measure assessing both helicopter parenting and autonomy support. For each item, students rated how much they agreed with each statement on a 6-point Likert scale ranging from *strongly disagree* to *strongly agree*. We modified the questionnaire so that “mother” was replaced with “parents.” The helicopter parenting subscale included 9 items (e.g., “If I were to receive a low grade that I felt was unfair, my parents would call the professor”) and the autonomy support subscale included 6 items (e.g., “My parents encourage me to make my own decisions and take responsibility for the choices I make”). Items were summed to create each subscale. Internal consistency (Cronbach’s alpha) was .77 for the helicopter parenting subscale and .62 for the autonomy support subscale.

Ethnicity.—Participants reported on their ethnicity and race on a demographic questionnaire designed for the current study. First, participants self-reported whether their ethnicity was Hispanic or not Hispanic. Second, participants self-reported their race using the following choices: White/European American, Black/African American, Asian, Pacific Islander, Hispanic/Latino/Mexican-American, Native American, Other. We operationalized ethnicity as two categories of White, non-Hispanic/Latino/Mexican American ($n = 66$) and

Latino/Hispanic/Mexican American ($n = 47$). For brevity, we refer to these two groups as non-Hispanic White and Hispanic. Five participants were excluded from analyses examining ethnic differences: one participant who reported they were African American and not Hispanic, three participants who indicated they were Asian and not Hispanic, and one participant who reported Other for race and indicated they were not Hispanic.

Mental health and well-being outcomes.—To assess mental health and well-being, students completed the Inventory for Depression and Anxiety Symptoms (IDAS; Watson et al., 2007). The present study used the dysphoria and social anxiety subscales, which represent two salient domains of emerging adults' mental health. The dysphoria subscale included 10 items assessing the core emotional and cognitive symptoms associated with depression (e.g., "I felt depressed"), and the social anxiety subscale included 5 items (e.g., "I felt self-conscious knowing that others were watching me"). To capture students' positive adjustment, we also used the well-being subscale, which included 8 items (e.g., "I felt hopeful about the future"). For all items, participants rated the extent to which they experienced each symptom in the past two weeks on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*extremely*). The IDAS has excellent psychometric properties, including high internal consistency, test-retest reliability, and strong convergent and discriminant validity (Watson et al., 2007). Internal consistency in the present sample was acceptable for the dysphoria ($\alpha = .89$), social anxiety ($\alpha = .83$), and well-being ($\alpha = .88$) subscales.

Analysis Plan

To test sex as a moderator of the relation between helicopter parenting or autonomy support and students' mental health and well-being, we ran three separate regression models, one for each outcome variable, using SPSS v. 23. Models included the main effect of sex, helicopter parenting, and autonomy support, as well as covariates of age, whether the participant lived at home with their parents, and ethnicity. Models also included the two-way interactions between (1) sex and helicopter parenting, and (2) sex and autonomy support. To test ethnicity as a moderator, we ran parallel regression models, replacing the interactions in the model to include interactions with ethnicity. That is, models included the main effect of ethnicity, helicopter parenting, and autonomy support, as well as covariates for age, whether the participant lived at home with their parents, and sex. These models included the two way interactions between (1) ethnicity and helicopter parenting, and (2) ethnicity and autonomy support. The helicopter parenting and autonomy support variables were centered prior to creating the interaction terms with sex and ethnicity. All significant two-way interactions were probed using Jeremy Dawson's online calculator (www.jeremydawson.co.uk/slopes.htm) and were plotted at -1 and $+1$ SD from the mean for the parenting variable.

Results

Descriptive information and inter-correlations among the study variables are presented in Table 1. Q-Q plots of normality showed that all three outcome variables were normally distributed. Preliminary analyses showed that there were no problems with multicollinearity among the three dependent variables (VIFs: 1.22–1.67). Preliminary results also indicated there were no significant sex differences on any of the outcome variables, or in reports of

helicopter parenting and parental autonomy support. There was only one significant ethnic difference: Hispanic students reported lower levels of autonomy support compared to non-Hispanic White students, $t(111) = 2.27, p = .025$. Bivariate correlations showed that helicopter parenting was positively related to dysphoria ($r = .28, p = .002$) and social anxiety ($r = .21, p = .03$), and negatively related to students' well-being ($r = -.26, p = .005$). Conversely, autonomy support was associated with less social anxiety ($r = -.19, p = .04$), and marginally related to lower dysphoria ($r = -.15, p = .10$) and higher well-being ($r = .17, p = .06$). Notably, helicopter parenting and autonomy support were not significantly correlated ($r = .16, p = .09$), supporting the distinction between these parenting domains.

Results testing the interactions of sex with helicopter parenting and autonomy support as predictors of dysphoria, social anxiety, and well-being are presented in Table 2. Sex differences were found in the relation between helicopter parenting and students' well-being, $b = 0.47, SE = 0.18, p = .01, \beta = 0.74$. Simple slopes tests of this interaction indicated that helicopter parenting predicted lower levels of well-being, but only for females (Figure 1). Sex did not moderate the relation between helicopter parenting and dysphoria or social anxiety.

With regard to autonomy support, two significant interactions emerged. Sex significantly moderated the relation between autonomy support and dysphoria, $b = -0.94, SE = 0.44, p = .037, \beta = -0.71$, and autonomy support and social anxiety, $b = -0.63, SE = 0.26, p = .019, \beta = -0.81$. Across both interactions, higher levels of autonomy support predicted less dysphoria and social anxiety, but only for males (Figure 2). Sex did not moderate the relation between autonomy support and well-being.

Results testing the interactions of ethnicity with helicopter parenting and autonomy support as predictors of dysphoria, social anxiety, and well-being are presented in Table 3. No ethnic differences were found in the relation between helicopter parenting and dysphoria, social anxiety, or well-being. Nor were any ethnic differences observed in the relation between autonomy support and dysphoria, social anxiety, or well-being.

Discussion

The aim of the current study was to investigate the relation between two dimensions of parenting-- helicopter parenting and autonomy support-- and the psychological well-being of emerging adults, and the extent to which student sex (male vs. female) and ethnicity (non-Hispanic White vs. Hispanic) moderated this relation. Consistent with the study hypotheses, helicopter parenting was associated with lower levels of well-being for females only. In contrast, autonomy support was associated with less dysphoria and social anxiety for males only. Finally, evidence for ethnic differences in these relations were not found. Together, the study findings suggest that although parental involvement is generally related to positive child adjustment (e.g., Amato & Fowler, 2002; Smokowski et al., 2015), parenting differentially predicts well-being for males and females in emerging adulthood. This study complements a growing body of research highlighting the harmful impact of helicopter parenting for adult children's outcomes (e.g., Kim et al., 2013; Segrin et al., 2015).

The finding that helicopter parenting was related to lower well-being for females is consistent with the findings from Costa, Soenens, Gugliandolo, Cuzzocrea, and Larcán (2015) who showed that psychological control, but not autonomy support, was predictive of internalizing problems for female emerging adults. Studies with adolescents have also reported that maternal control is related to females', but not males', well-being (Mandara & Pikes, 2008). Although there are important differences between psychological control and helicopter parenting with regard to levels of warmth and concern for the child's well-being, both involve high levels of control (Padilla-Walker & Nelson, 2012). Therefore, the controlling behaviors (and not increased concern for their child) contained within helicopter parenting may be responsible for the negative outcomes reported for females. Previous work has shown that whereas males are more vulnerable to negative family interactions in early childhood, females are more vulnerable in adolescence (see Davies & Lindsay, 2001); our study extends this differential gender-vulnerability finding into emerging adulthood.

Arnett (2014) argued that helicopter parenting is related to negative outcomes because it interferes with emerging adults' ability to achieve developmentally appropriate goals of self-exploration and self-reliance. One potential mechanism by which helicopter parenting may predict lower well-being among females, therefore, is by impairing their ability to develop effective coping mechanisms for resolving conflict and dealing with everyday life stressors. For example, in a study of adolescents, Gaylord-Harden, Campbell, and Kesselring (2010) found that higher perceived maternal control was related to the use of avoidant coping strategies for females only. Further, Mandara and Pikes (2008) proposed that females may be better at understanding nonverbal and emotional cues during communication than males, and thus, they may interpret helicopter parenting as a covert message from parents that they believe their female child is not competent or skilled to handle problems and decisions on their own. Thus, this perceived lack of confidence in their abilities may decrease their overall well-being. Our finding that helicopter parenting predicted lower well-being for females, and not males, may also be partly because parents use more controlling behaviors (Mandara & Pikes, 2008) and less autonomy-granting (Bumpus, Crouter, & McHale, 2001; Lanza et al. 2012) with females. Thus, given these controlling behaviors likely begin early in life for adolescent females, helicopter parenting during college may represent a prolonged history of parental control that culminates in less well-being during emerging adulthood.

Male students who reported higher parental autonomy support reported less dysphoria and social anxiety; conversely, lower parental autonomy support was related to increased dysphoria and social anxiety. In general, studies with adolescent samples show that boys receive more autonomy-support than girls (Bumpus et al. 2001; Dowdy & Kliewer, 1998; Gaylord-Harden et al., 2010; Lanza et al., 2012). Research also supports that parents engage in sex-typing socialization with their children, in which independence and assertiveness is emphasized with boys whereas being expressive and compliant is emphasized for girls (Bumpus et al., 2001; Hill & Lynch, 1983). Thus, consistent with the gender intensification hypothesis (Hill & Lynch, 1983), parental autonomy support in emerging adulthood may serve to affirm stereotypical gender behavior that has been socialized in males. Although we did not find evidence for mean level differences in autonomy support between males and females during emerging adulthood in the current study, the fact that autonomy support is more prevalent among males in childhood and adolescence may account for our pattern of

findings. That is, if males have been socialized to expect autonomy support, then lower levels of autonomy support—especially during emerging adulthood when students increasingly expect freedom to make their own choices—may be viewed more negatively by males than females, thereby affecting their mental health. Although this study found significant sex differences, other studies have not found differences in levels of parental autonomy and control between males and females (Bean & Northrup, 2009) nor in the relation between parental support and academic achievement (Kristjansson & Sigfusdottir, 2009). Given the lack of research on sex differences in the relation between parenting and well-being among emerging adults, it is important to replicate these findings in future research.

A secondary aim of the current study was to explore ethnic differences in the relation between helicopter and autonomy support parenting and emerging adults' mental health and well-being. Although Hispanic emerging adults reported significantly lower levels of perceived autonomy support, there were no ethnic differences between non-Hispanic White and Hispanic students in the relation between parenting and mental health. Thus, we did not find support for the cultural values model. Instead, our findings are consistent with the previous work and theory supporting ethnic equivalence in the effect of parenting on children's outcomes (e.g., Dumka, Gonzales, Wheeler, & Millsap, 2010; Lamborn & Felbab, 2003; Varela, Niditch, Hensely-Maloney, Moore, & Creveling, 2013). However, it is important to note that there have been mixed findings in studies with adolescent samples. Whereas Lanza et al. (2012) found that autonomy granting was higher among Latino and African American families, Freeman and Newland (2002) found that behavioral control was higher among non-White ethnic groups. Further, some studies have found no differences in parenting style across ethnicities (e.g., Mounts, 2004). The results from the current study should also be interpreted with caution since we only examined differences between non-Hispanic White and Hispanic students; therefore, our results may not generalize to comparisons between White and other racial or ethnic groups, who may have different cultural experiences. Moreover, there is likely significant within-group variability among Hispanic and Latino students, such as their family's level of acculturation, which should be accounted for in future studies. Thus, it would be premature to conclude that our findings offer unequivocal support for an ethnic equivalence model. Given the lack of diversity among samples in studies with emerging adults, future research is needed to examine the association between parenting and outcomes for young adults across various racial and ethnic groups.

A direction for future research is not only to document links between helicopter parenting and young adults' well-being, but to also investigate the mechanisms underlying these associations. One potential pathway by which helicopter parenting may confer risk for emerging adults' mental health and well-being is through coping and regulatory skills. That is, by over-involving oneself in their adult child's life to solve their problems and make decisions for them, helicopter parents may hinder their college-aged child from developing a repertoire of, and practicing using, adaptive coping strategies and regulatory skills (e.g., Abaied & Emond, 2013). Helicopter parenting may also decrease young adults' sense of self-efficacy and self-esteem, both of which show robust associations with psychological distress among emerging adults (e.g., Orth, Robins, & Roberts, 2008; Saltzman & Holahan,

2002; see also Sowislo & Orth, 2013). Individual characteristics of the emerging adult (e.g., stress sensitivity and reactivity, personality) that may elicit helicopter behaviors from the parent also need to be considered.

The limitations of this study provide additional directions for future studies. First, our measure of helicopter parenting did not differentiate between mothers' or fathers' parenting behavior. Although differences may exist between maternal and paternal parenting styles (e.g., McKinney & Renk, 2008), it is important to note that some researchers have found no significant differences in the association between parenting and child outcomes for mothers and fathers (e.g., Nelson et al., 2011). Relatedly, the internal consistency of our autonomy support variable was low (Cronbach's $\alpha = .62$) as compared to Schiffrin et al. (2014; Cronbach's $\alpha = .71$), which may have attenuated relations in the present study. This may be due to the change in wording of our scale to measure parental versus maternal behavior. The inter-item correlations for the six items on this scale (average $r = .22$) suggest that we may have measured a more broad construct (parental parenting vs. maternal parenting) as compared to the Schiffrin et al. (2014) study. Second, this study only examined the impact of one close relationship for emerging adults, and the influence of friends may also be important for well-being outcomes in this population. Nonetheless, Van der Giessen et al. (2014) found that autonomy support from a parent, and not a friend, was associated with depressive symptoms in a sample of adolescents followed from age 12 to 20, suggesting that parents continue to significantly contribute to their children's well-being in emerging adulthood. Third, our study was cross-sectional, and therefore, the direction of effects cannot be assessed. It is likely that the relation between parenting behaviors and emerging adults' mental health and well-being are bidirectional (e.g., Van der Giessen et al., 2014). That is, psychological distress among emerging adults may elicit over-involvement and helicopter behaviors from their parents, which in turn may contribute to their child's psychological distress. In contrast, young adults exhibiting low levels of psychological distress may elicit more autonomy support from parents, promoting better health and well-being in their child. Longitudinal data is needed to draw more cogent conclusions regarding the temporal order between helicopter parenting and emerging adults' well-being.

Fourth, participants self-reported on both measures of parenting and mental health and well-being, which may have contributed to mono-method reporter bias. Although self-report measures are common in emerging adult samples, including multiple informants or observational measures of parent-child interactions will advance this area of research. Fifth, this sample included only emerging adults who were attending a private university and taking a psychology course, and the majority of the sample was female. Not all emerging adults, however, attend college; thus our findings may not generalize to emerging adults not attending college, or to college students attending public universities. The use of a college sample is still justified given that this is the population in which helicopter parenting is most prevalent (Nelson, 2010). Additionally, predominately female samples are common among college samples (e.g., Abaied & Emond, 2013; Costa et al., 2015; Klein & Pierce, 2009; Padilla-Walker & Nelson, 2012; Schiffrin et al., 2014). Nonetheless, replication of findings in a sample that includes an even number of males and females and in a non-college sample is warranted. Finally, although our sample was diverse with regard to including Hispanic students, other racial and ethnic groups, including African American and Asian emerging

adults, were underrepresented in our sample. Future work on parenting of emerging adult children will benefit from efforts to increase the racial and ethnic diversity of samples.

The current study expands upon the relatively recent phenomenon of helicopter parenting by examining gender and ethnic differences in relations between parenting and emerging adults' outcomes. The findings suggest that whereas helicopter parenting may be a risk factor for females, autonomy support may be protective for males' mental health outcomes. Further research is needed to comprehensively understand helicopter parenting and its impact on children from a developmental perspective. For example, longitudinal studies that examine helicopter parenting and children's outcomes from early childhood to emerging adulthood would be particularly informative in understanding when normative and adaptive parental involvement transitions to behaviors characteristic of helicopter parenting. The findings from this study can be used to inform clinicians or university counselors working with emerging adults, particularly in a college setting where rates of mental health problems are elevated (Hunt & Eisenberg, 2010). Although college students may be living away from home, the family context continues to be an important influence and should be considered in therapeutic settings. During emerging adulthood, when independence becomes increasingly important, it is crucial to help individuals thrive and appropriately assert their independence from their parents, while still encouraging healthy interdependence within families that is culturally-sensitive, in order to prepare them for the demands and challenges of adulthood.

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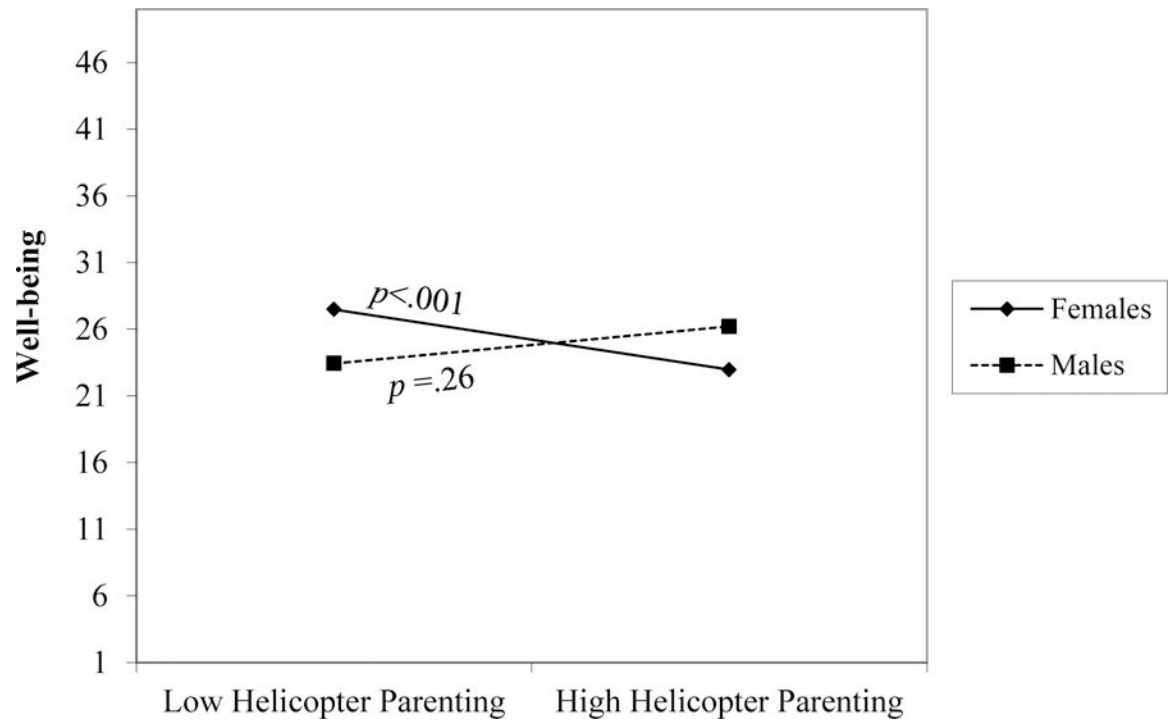


Figure 1.
Higher helicopter parenting predicts lower well-being among females.

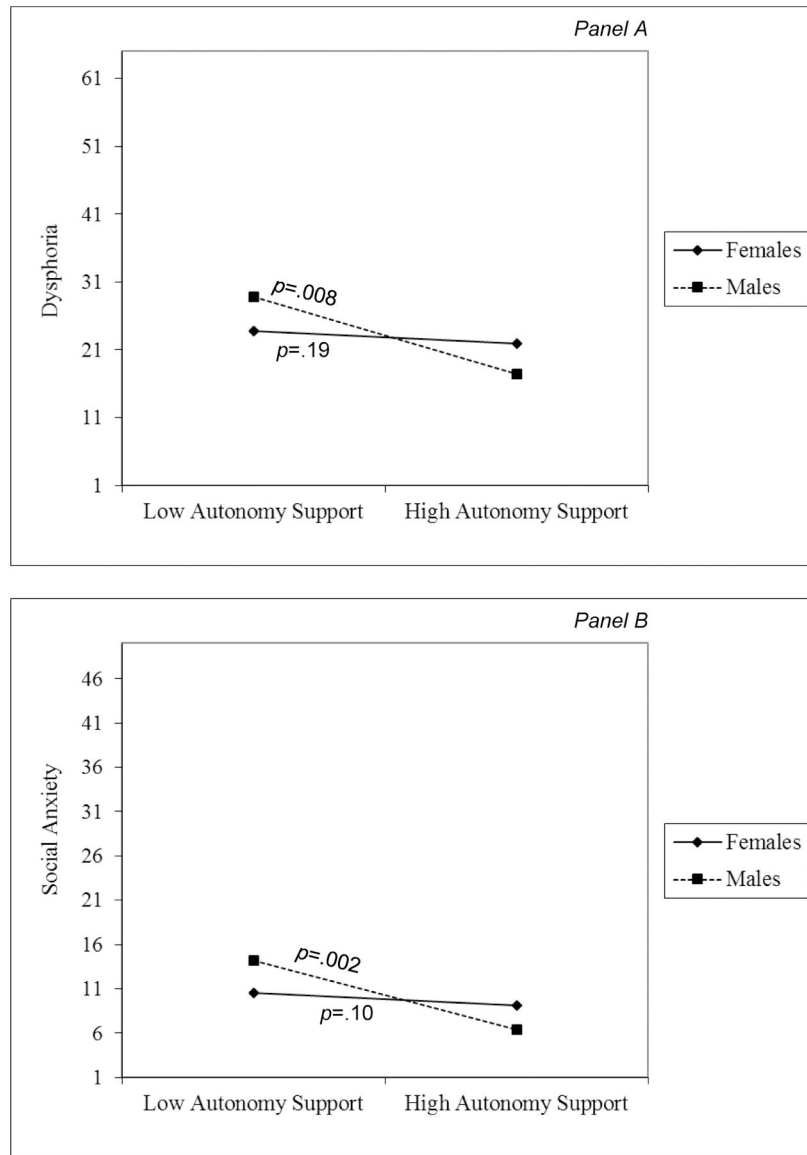


Figure 2. Lower autonomy support predicts higher dysphoria (Panel A) and higher social anxiety (Panel B) for males.

Table 1

Means, Standard Deviations, and Inter-correlations among Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Age	--								
2. Lives at Home	.12	--							
3. Ethnicity	-.10	.19*	--						
4. Sex	.07	-.03	-.04	--					
5. Helicopter Parenting	-.20*	-.02	.05	-.06	--				
6. Autonomy Support	.07	-.13	-.21*	-.02	-.16 [†]	--			
7. Dysphoria	-.11	.01	.04	.28**	-.15 [†]	-.15 [†]	--		
8. Social Anxiety	-.10	.03	.05	.03	.21*	-.19*	.60**	--	
9. Well-being	.03	-.17+	-.09	-.05	-.26**	.17 [†]	-.63**	-.43**	--
<i>M</i>	19.82	--	--	--	22.52	27.48	22.47	9.83	24.75
<i>SD</i>	1.38	--	--	--	7.70	5.04	7.43	4.34	6.09

Note. *N* = 118. Ethnicity coded as 0 = non-Hispanic White and 1 = Hispanic. Lives at Home coded as 0 = does not live with parents, 1 = lives with parents.

[†] *p* < .10

* *p* < .05

** *p* < .01

Table 2
 Results from Multiple Regression Testing Sex as a Moderator of the Relation between Helicopter Parenting, Autonomy Support, and Students' Mental Health and Well-being

	Model 1: Dysphoria		Model 2: Social Anxiety		Model 3: Well-being	
	b (SE)	β	b (SE)	β	b (SE)	β
Intercept	22.58 (2.32)**		9.36 (1.38)**		25.62 (1.85)**	
Age	-0.31 (0.51)	-0.06	-0.22 (0.30)	-0.07	0.07 (0.41)	0.02
Lives at Home	-0.32 (2.71)	-0.01	0.22 (1.61)	0.01	-4.23 (2.16)	-0.18
Ethnicity	-0.98 (1.43)	-0.07	-0.26 (0.85)	-0.03	0.12 (1.14)	0.01
Sex	0.28 (1.81)	0.01	0.46 (1.08)	0.04	-0.40 (1.45)	-0.03
Helicopter Parenting	0.55 (0.29) [†]	0.55	0.26 (0.17)	0.44	-0.77 (0.23)**	-0.95
Autonomy Support	0.74 (0.51)	0.49	0.49 (0.30)	0.55	0.11 (0.41)	0.09
Helicopter Parenting × Sex	-0.20 (0.23)	-0.28	-0.11 (0.14)	-0.23	0.47 (0.18)*	0.74
Autonomy Support × Sex	-0.94 (0.44)*	-0.71	-0.63 (0.26)*	-0.81	0.12 (0.35)	0.11
R ²	0.17		0.15		0.18	

Note. N= 118.

[†] p< .10

* p< .05

** p< .01.

Lives at Home coded as 0 = does not live with parents, 1 = lives with parents. Ethnicity coded as 0 = non-Hispanic White and 1 = Hispanic. All continuous variables were centered.

Table 3

Results from Multiple Regression Testing Ethnicity as a Moderator of the Relation between Helicopter Parenting, Autonomy Support, and Students' Mental Health and Well-being

	Model 1: Dysphoria		Model 2: Social Anxiety		Model 3: Well-being	
	b (SE)	β	b (SE)	β	b (SE)	β
Intercept	22.00 (2.36)**		9.08 (1.42)**		26.29 (1.88)**	
Age	-0.04 (0.53)	-0.01	-0.17 (0.32)	-0.05	-0.15 (0.43)	-0.03
Lives at Home	-0.33 (2.77)	-0.01	0.04 (1.66)	.00	-3.99 (2.21) [†]	-0.17
Ethnicity	-0.65 (1.45)	-0.04	-0.10 (0.87)	-0.01	-0.21 (1.16)	-0.02
Sex	0.72 (1.84)	0.04	0.64 (1.10)	0.05	-1.01 (1.47)	-0.06
Helicopter Parenting	0.25 (0.12)*	0.25	0.14 (0.07)*	0.23	-0.15 (0.09)	-0.19
Autonomy Support	-0.36 (0.24)	-0.24	-0.15 (0.14)	-0.16	0.38 (0.19)*	0.31
Helicopter Parenting X Ethnicity	0.19 (0.20)	0.11	-0.03 (0.12)	-0.03	-0.18 (0.16)	-0.13
Autonomy Support X Ethnicity	0.11 (0.30)	0.06	-0.10 (0.18)	-0.08	-0.23 (0.24)	-0.15
R ²	0.13		0.10		0.15	

Note. N= 118.

[†] p< .10

* p< .05

** p< .01.

Lives at Home coded as 0 = does not live with parents, 1 = lives with parents. Ethnicity coded as 0 = non-Hispanic White and 1 = Hispanic. All continuous variables were centered.