

# Perceptions of Parent Behavior and Self-Concealment in Emerging Adults

Mary Kuckertz<sup>1</sup>, Hannah Carter<sup>1</sup> and Michael Ichiyama<sup>1</sup>

<sup>1</sup>University of San Diego, San Diego, CA, USA

## ABSTRACT

Self-concealment is the tendency to conceal personal information from others that an individual views as negative or distressing and is associated with negative health and emotional outcomes. While parent behaviors have shown to influence the development of self-concealment among children and adolescents, less is known about self-concealment among college-age adults where parental influences are less direct. This study examined perceptions of parenting style and parental relationship quality on the tendency to self-conceal in a sample of 772 college students. Hierarchical linear regression analyses were computed to analyze the sequential effects of parenting variables (relationship quality and parenting style) on self-concealment. Overall, higher levels of self-concealment in males were found. Effects of perceived parenting style on self-concealment showed differential effects by gender although the sample was larger for females than males. Among male students, more favorable relationship quality with the father was linked to lower levels of self-concealment while a more Permissive maternal parenting style was associated with greater self-concealment. In females, both father and mother relationship quality were inversely related to self-concealment (more positive relationship quality, less self-concealment). Greater paternal Authoritative parenting style and lower maternal Authoritarian parenting style were associated with lower levels of self-concealment among female students. Findings suggest that perceived parenting behaviors may continue to influence important behavioral tendencies (in this study self-concealment) into emerging adulthood.

## Perceptions of Parent Behavior and Self-Concealment in Emerging Adults

Self-concealment (SC) is the predisposition to conceal personal information or keep secrets from others that an individual perceives as negative or distressing (Larson & Chastain, 1990). Higher levels of self-concealment have been associated with various negative psychological and physical health outcomes in young adults (e.g., Hartman et al., 2015; Ichiyama et al., 1993; Masuda et al., 2012). This includes poor self-esteem (Ichiyama et al., 1993), depression and anxiety (Cepeda-Benito & Short, 1998; Hartman et al., 2015), delinquency (Jäggi et al., 2016), less self-control (Frijns et al., 2005), increased drinking (McCann et al., 2016), and suicidal ideation (Friedlander et al., 2012). Such findings are troubling given that youth who are high in self-concealment are three times less likely to subsequently seek professional help as young adults (Cepeda-Benito & Short, 1998; Masuda et al., 2012). While some evidence suggests that secrecy may be a positive aspect of development in that it may increase youth independence (Finkenauer et al., 2002), the bulk of the literature links secrecy to negative psychological outcomes among youth.

Despite being related to a number of psychological disadvantages (see Finkenauer et al., 2002; McCann et al., 2016), youth and young adults often keep secrets from parents (Frijns et al., 1992). Common reasons include fear of adverse consequences (Afifi & Olson, 2005; Guerrero & Afifi, 1995; Smetana et al., 2006), to establish autonomy (Finkenauer et al., 2002; Marshall et al., 2005), and desire to assert more power over parents (Stattin et al., 2000).

While the act of disclosure has also been associated with more positive health outcomes (Frijns et al., 2010; Kerr & Stattin, 2000; Smetana et al., 2006), it is important to note that disclosure (or lack thereof) and secrecy are distinct concepts (see Frijns et al., 2010; Larson & Chastain, 1990; Smetana et al., 2006). One can simultaneously disclose information to significant others (such as parents) while also concealing other types of information (Almas

et al., 2011). For example, one can be open with their parents about how their school day went but be secretive about activities that happened at the end of the day, thus both disclosing information and self-concealing simultaneously. Self-concealing behavior then is not simply a lack of self-disclosure (Frijns et al., 2010). In this study we focused on the effects on self-concealing behavior rather than the inhibition of self-disclosure.

Larson and Chastain (1990) conceptualized the tendency of individuals to keep secrets (self-concealment) as a dispositional variable and operationalized the concept through the development of the self-concealment scale. Individual differences found on self-concealment then reflect differing levels of potential risk for experiencing the negative consequences associated with secret keeping. The potential negative consequences associated with harboring secrets have been well established. However, less is known about the processes that may contribute to or discourage self-concealment tendencies. One such area of potential influence in the development of self-concealment is the parent-child relationship.

## Parental Influences on Self-Concealment

There appear to be a variety of associations between parenting and self-concealing behaviors among youth. For one, negative parenting behaviors appear to be related to increases in self-concealment among children. For example, dispositionally angry mothering (Almas et al., 2011) as well as lower parent-child relationship quality (Keijsers et al., 2010) are both associated with more secret-keeping in children. Cold parental response in reaction to a child's disclosure also predicts secrecy (Tilton-Weaver et al., 2010). Even a child's perception of parenting characteristics (regardless of actual parental behavior) is predictive of greater self-concealment. For example, youth who feel controlled by parents (Tilton-Weaver et al., 2010) or carry the perception of receiving poor parenting (Finkenauer et al., 2002) are both associated with increases in youth secrecy. In contrast, positive parenting behaviors such as greater parental acceptance, appear to be related to decreased child self-concealment (Smetana et al., 2006) and more positive parent-child relationship quality (Villalobos Solís et al., 2015).

## Parenting Style

Within the parenting literature, the concept of parenting style has generated considerable research activity. Baumrind (1971) conceptualized types of parenting style that vary along the dimensions of parental warmth and parental control which Maccoby and Martin expanded upon (1983). The Authoritarian parenting style is characterized by low parental warmth and high control. Authoritarian style parents tend to be demanding and nonresponsive to their child's needs (Baumrind, 1978; Maccoby & Martin, 1983). This parenting style has been associated with various negative child outcomes including low self-esteem, shyness, and difficulty reading social situations (Hastings et al., 2010; Jadon & Tripathi, 2017; Kazemi et al., 2010). The Permissive parenting style is characterized by high parental warmth and low control. Permissive style parents often avoid confrontation with their children and have few rules (Baumrind, 1971; Maccoby & Martin, 1983). Children of Permissive parents tend to lack self-discipline and have higher delinquency levels (Hinnant et al., 2016; Singh, 2017). The Authoritative parenting style is characterized by the combination of parental warmth and structure (control; Baumrind, 1971; Maccoby & Martin, 1983) and has been associated with the most positive youth outcomes including higher academic achievement, positive social skills, and increased self-esteem (Jadon & Tripathi, 2017). Finally, the Uninvolved parenting style is characterized by the relative absence of both parental warmth and parental control (Baumrind, 1971; Maccoby & Martin, 1983) and has been linked with negative outcomes including depression, delinquency, and emotion regulation difficulties (Jabeen et al., 2013; Konopka et al., 2018; Mowen & Schroeder, 2018). It is important to note however, that some cultural variation has been observed in parenting style and positive/negative outcomes associated with such parenting style (Checa & Abundis-Gutierrez, 2018; Huang & Grove, 2015; Masud et al., 2015).

While Baumrind's (1971) seminal conceptualization of parenting style has been linked to a wide array of child behavior outcomes, there has been a paucity of studies investigating relationships between parenting style and secrecy (Almas et al., 2011; Hartman et al., 2015). We identified one study that explicitly explored links between parenting style and child secrecy. In their sample of young adults, Hartman and colleagues (2015) found that maternal Authoritarian parenting style (high control, low warmth) was related to greater self-concealment while paternal Authoritative parenting style (warmth and support with structure) was related to lower levels of self-concealment. It should be noted that Hartman and colleagues (2015) investigated perceived parenting style across fathers and mothers but did not assess any potential differentiating effects of parenting style on self-concealment as a function of child gender. Thus, possible parent-child cross-gender effects were not assessed in their study.

## The Transition to College

The large majority of studies examining parental influences on the development of self-concealment have focused on children and adolescents who reside in a context of more direct parental influence (i.e., residing in the same home). Less is known about the potential ongoing effects of parenting behaviors on self-concealment among emerging adults in college where the influence of parents is often more indirect. The transition to college represents a significant developmental milestone in the lives of many young adults (Sher & Rutledge, 2007). The transition from high school to college frequently involves moving away from home for the first time. The increased autonomy and independence are accompanied by decreased parental contact and direct parental influence. While the significance of parental influence on younger children is unquestioned, some debate has existed about the ongoing influence of parents on the behavior of their children during the college years (Ham & Hope, 2003; Wood et al., 2001). Some researchers have presumed that socialization patterns shift over the course of adolescence to young adulthood, with parental influences weakening and peer influences strengthening during this developmental transition (Harris, 1998). Such assertions may have contributed to the relative paucity of studies examining parental influences in the development of self-concealing behavior among college students. However, in contrast to the presumptions of diminished parent influences on college student behavior, there is a growing body of research that has provided strong evidence in support of continued parental influence related to other important concepts in the lives of college students, such as college alcohol misuse (see Ichiyama et al., 2018 for a review). In the present study we examined the potential effects of both maternal and paternal parenting variables (parental relationship quality and parenting styles) on levels of self-concealment among female and male college students. Parent-child cross-gender effects were assessed. We next present the general aims and predictions of the present study based on our review of the literature.

## Aims of the Present Study

### *Differences in Self-Concealment in Female and Male College Students*

Among adolescents there appears to be ambiguity as to whether males or females tend to self-conceal more. While Frijns and Finkenauer (2009) reported that female adolescents self-conceal more than males, Keijsers and colleagues (2010) found that both males and females increase their self-concealment levels throughout adolescence, but males do so at a higher rate than females over the course of development. Based on the findings of Keijsers and colleagues (2010) suggesting greater secrecy trends among males than females during adolescence, we predicted that in our sample of college students, males would show higher overall levels of self-concealment than females.

### *Parent-Child Relationship Quality and Self-Concealment*

Relationship quality with parents has been shown to moderate self-concealment in youth and adolescents (Villalobos Solís et al., 2015), but whether or not this trend has continuity into the transition to college and beyond is unknown. Based on findings reported with younger age samples, we predicted that more positive youth-reported parent-child

relationship quality would be associated with decreasing levels of self-concealment in both female and male college students.

### *Parenting Style and Self-Concealment*

In this study we sought to expand upon an earlier study by Hartman and colleagues (2015) and assessed whether perceived maternal and paternal parenting styles are differentially related to levels of self-concealment across both female and male college students. We predicted that both Authoritarian (controlling) and Permissive (indulgent) parenting styles would be associated with higher levels of self-concealment than the Authoritative (structure with support) parenting style among both female and male college students. We speculated that even emerging adults in college who report less parental warmth and support would be more likely to conceal information from others. In contrast, we anticipated that the young adults in our sample would be less likely to conceal when their parents show a warm yet structured (Authoritative) parenting style.

## Methods

### Participants

The sample consisted of 772 undergraduate college students attending a medium sized private university for which the annual cost to attend is greater than \$70,000 (including tuition, fees, and room and board). Data comes from a privileged sample and is representative of the general student population with the exception of gender. Males were underrepresented in our sample. Of the male-identifying students included in the current study (24.5%,  $n=189$ ), 97.4% were 18-24 years of age. Of male students age 18-24, the mean was 19.9 ( $SD=1.5$ ). Our male sample consisted of the following self-reported ethnicities: White/European (66.1%), Latino or other Spanish origin (9.0%), Asian/Pacific Islander (9.5%), Black/African American (6.9%), and other (7.5%). Year in school varied with 36.5% of males in their first year, 24.9% in their second year, 13.2% in their third year, and 24.3% in their fourth year. Male students reported various living arrangements, with 61.4% living on campus, 31.7% living off campus with peers or alone, and 5.8% reported living at home with parents.

Despite differences in sample size, female demographic information was similar to male demographic information. Of the female-identifying students included in the current study (75.5%,  $n=583$ ), 98.3% were 18-24 years of age. Of female students age 18-24, the mean was 19.7 ( $SD=1.5$ ). Our female sample consisted of the following self-reported ethnicities: White/European (67.1%), Latina or other Spanish origin (13.6%), Asian/Pacific Islander (10.8%), Black/African American (3.8%), and other (4.8%). Year in school varied with 38.4% of females in their first year, 19.4% in their second year, 14.6% in their third year, and 27.6% in their fourth year. Female students reported various living arrangements, with 63.6% living on campus, 28.6% living off campus with peers or alone, and 7.7% reported living at home with parents.

### Procedures

Participants were recruited through both introductory and upper-division psychology courses and through the psychology department subject pool. Participants completed an online survey and provided their informed consent before participation. They were given the option to obtain course credit in return for their participation. The project upon which this study is based was approved by the [School Name Masked] Institutional Review Board prior to its implementation.

## Measures

Participants completed an online survey that included demographic information (such as gender, age, ethnicity, religious affiliation, marital status, housing status, field of study), a set of questionnaire items assessing relationship quality with parents, parenting styles of their mother and father, and the Self-Concealment Scale (SCS). Internal consistency reliability was estimated using Cronbach's Alpha for each scale and are presented below.

### *Relationship Quality*

A measure of relationship quality with parents developed by Turrisi and colleagues (Turrisi et al., 2000) assessed the amount of satisfaction the child has with the quality of their maternal and paternal relationships using two 12-item subscales (5-point Likert scale ranging from 1=very dissatisfied to 5=very satisfied); An example item included "The emotional support your mother give you". Subscales items were summed in order to provide maternal and paternal relationship quality estimates. Both subscales showed adequate internal consistency reliability estimates: relationship quality with mother (Alpha = .94) and relationship quality with father (Alpha = .96).

### *Parenting Style*

To measure parenting style, or students' perception of the types of strategies utilized by their parents during child-rearing, a 24-item scale was used to evaluate both mother's and father's Authoritarian, Authoritative, and Permissive parenting characteristics (1=strongly disagree, 5=strongly agree; Buri, 1991). There were 12 items that assessed maternal parenting style (e.g., "As I was growing up, my mother seldom gave me expectations and guidelines for my behavior") and 12 items that assessed paternal parenting style (e.g., "As I was growing up, my father did not allow me to question any decision he had to make"). The internal consistency reliability estimates were as follows: mother Authoritarian (Alpha = .77), father Authoritarian (Alpha = .81), mother Authoritative (Alpha = .83), father Authoritative (Alpha = .86), mother Permissive (Alpha = .61), and father Permissive (Alpha = .62).

### *Self-Concealment*

The 10-item Self-Concealment Scale (1=strongly disagree, 5=strongly agree; Larson & Chastain, 1990) measured the participants' predisposition to actively conceal personal information perceived as distressing or negative (e.g., "There are lots of things about me that I keep to myself," and "My secrets are too embarrassing to share with others"). The self-concealment measure showed favorable internal consistency reliability (Alpha = .92).

## Results

### Descriptive Data and Analysis of Gender Invariance

Means, standard deviations, and zero-order correlations for the full sample and by female and male participants are shown in Tables 1 and 2. Overall, the data suggest different patterns of associations between parenting style and self-concealment for male versus female participants. An independent samples t-test compared levels of self-concealment across female and male participants. As predicted, males ( $M=28.70$ ,  $SD=9.23$ ) reported higher overall levels of self-concealment than females ( $M=25.25$ ,  $SD=9.76$ ,  $t(770) = 4.29$ ,  $p < .001$ ,  $d = .36$ ) with findings yielding a small to medium effect size.

**Table 1.** Variable zero-order correlations, means, and standard deviations of full sample.

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Self-concealment	–								
2. Mother relationship quality	-.219**	–							
3. Father relationship quality	-.273**	.289**	–						
4. Authoritarian mother	.134**	-.181**	-.048	–					
5. Authoritarian father	.080*	-.065	-.069	.458**	–				
6. Permissive mother	.095**	.135**	.019	-.091*	.032	–			
7. Permissive father	.068	-.024	.068	.086*	-.060	.499**	–		
8. Authoritative mother	-.131**	.646**	.253**	-.281**	-.093**	.268**	.111**	–	
9. Authoritative father	-.194**	.186**	.594**	-.044	-.088*	.069	.295**	.424**	–
Mean	26.09	25.25	23.53	12.38	12.83	10.56	10.91	14.45	13.89
(SD)	(9.74)	(5.71)	(6.88)	(3.39)	(3.62)	(3.11)	(3.12)	(3.54)	(3.78)

\*\* Correlation is significant at the 0.01 level.

\* Correlation is significant at the 0.05 level.

**Table 2.** Variable zero-order correlations, means, and standard deviations separated by gender.

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	Mean (SD)
1. Self-concealment	–	-.272**	-.299**	.163**	.056	.013	.009	-.200**	-.248**	25.25 (9.76)
2. Mother relationship quality	-.043	–	.262**	-.241**	-.098*	.131**	-.053	.635**	.152**	25.21 (5.90)
3. Father relationship quality	-.173*	.398**	–	-.108**	-.063	.002	.043	.229**	.594**	23.66 (7.00)
4. Authoritarian mother	.011	.045	.169*	–	.410*	-.169**	.042	-.349**	-.062	12.29 (3.44)
5. Authoritarian father	.122	.071	-.080	.633**	–	.031	-.094*	-.130**	-.096*	12.69 (3.74)

6. Permissive mother	.270*	.148*	.092	.124	-.008	—	.416*	.244**	.001	10.32 (3.05)
7. Permissive father	.186*	.074	.175*	.208**	.018	.714**	—	.073	.266**	10.68 (3.12)
8. Authoritative mother	.128	.692**	.339**	-.029	.058	.373**	.261*	—	.375**	14.48 (3.64)
9. Authoritative father	.020	.334**	.601**	.028	-.049	.328**	.438*	.634**	—	13.92 (3.95)
Mean	28.70	25.39	23.12	12.67	13.29	11.33	11.63	14.37	13.79	
(SD)	(9.23)	(5.10)	(6.53)	(3.23)	(3.22)	(3.17)	(3.01)	(3.21)	(3.20)	

Note. Values for women are shown above the diagonal, values for men below.

\*\* Correlation is significant at the 0.01 level.

\* Correlation is significant at the 0.05 level.

To further assess for gender invariance, a regression model was estimated with self-concealment as the criterion variable. The gender variable was dummy coded (female=0, male=1) and entered in the first block along with mother and father parental relationship quality and parenting styles. Gender interaction terms were then computed for each predictor variable and entered as the second block. The *R* square change statistic for the gender interaction block was significant ( $R^2=.026, p<.005$ ). Hierarchical multiple regression models were then computed for the female and then male participants in our sample. In each multiple regression model self-concealment scores served as the criterion variable and parental relationship quality and parenting styles comprised the predictor variables. Maternal and paternal parental relationship quality scores were entered in the first block followed in sequence by maternal and paternal parenting styles in the second block.

### Regression Model for Females

The regression model (see Table 3) for the female participants in our sample revealed that parental relationship quality contributed significantly to the regression model, ( $R^2=.13, F(2, 578)=42.83, p<.001$ ), and accounted for approximately 12.9% of the variation in female self-concealment. Both mother ( $\beta=-.343, p<.001$ ) and father ( $\beta=-.342, p<.001$ ) relationship quality were significant predictors of self-concealment (lower parental relationship quality associated with higher levels of self-concealment). When parenting style was introduced to the model, it accounted for an additional 3.7% of the variation in self-concealment. After accounting for the effects of parental relationship quality on self-concealment, maternal Authoritarian parenting style was found to be a significant predictor ( $\beta=.122, p<.01$ ) of self-concealment (greater maternal authoritarian parenting was related to greater self-concealment) and paternal Authoritative parenting style was a significant negative predictor ( $\beta=-.137, p<.05$ ) of self-concealment (greater paternal authoritative parenting was related to lower levels of self-concealment) among our female participants.

**Table 3.** Hierarchical regression analysis of variables predicting child self-concealment.

Predictors	Females ( <i>n</i> = 583)				Males ( <i>n</i> = 189)			
	B	SE B	$\beta$	$\Delta R^2$	B	SE B	$\beta$	$\Delta R^2$
Step 1 (Par Rel Qual)				.129				.031
Mother rel quality	-.343	.067	-.207***		.055	.142	.030	



Father rel quality	-.342	.056	-.244***		-.262	.111	-.185*
Step 2 (Parenting Styles)				.021			.117
Authoritarian mother	.349	.131	.122**		-.261	.284	-.091
Authoritarian father	-.086	.113	-.033		.471	.274	.164†
Permissive mother	.153	.147	.047		.645	.306	.222*
Permissive father	.027	.145	.009		.156	.334	.051
Authoritative mother	.149	.156	.055		.623	.381	.217
Authoritative father	-.340	.138	-.137*		-.171	.354	-.059

Note. Coefficients presented separately by model. Female model:  $F(2, 578) = 42.83, p < .001$ . Male model  $F(2, 186) = 2.954, p = .055$ .

† $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

### Regression Model for Males

The regression model for the male participants (see Table 3) showed that as a whole, the contribution of parental relationship quality approached statistical significance, ( $R^2 = .031, F(2, 186) = 2.954, p = .055$ ), and accounted for approximately 3.1% of the variation in male self-concealment. For male participants, only father relationship quality was a significant predictor ( $\beta = .262, p = .02$ ) of self-concealment (lower paternal relationship quality was associated with greater self-concealment).

When parenting style was added to the model, it accounted for an additional 11.7% of the variation in male self-concealment. After accounting for the effects of parental relationship quality on self-concealment maternal Permissive parenting style showed a positive predictive association ( $\beta = .222, p < .05$ ) with self-concealment (greater maternal permissive parenting was associated with higher levels of self-concealment) among the males in our sample.

## Discussion

The male participants in our sample displayed higher levels of self-concealment than females. This finding is consistent with Keijsers and colleagues (2010), which found higher rates of secrecy among male adolescents compared to female adolescents. The results of this study add to the existing knowledge base and suggest that the tendency of males to self-conceal more than females may continue from adolescence into young adulthood.

We predicted that our participants' perception of more positive relationship quality with both parents would be associated with lower levels of self-concealment. Our general prediction received partial support. While more positive relationship quality with both fathers and mothers was significant in the expected direction for our female participants, only father relationship quality showed a significant effect in self-concealment among our male participants. This finding is somewhat consistent with the study by Keijsers and colleagues (2010) based on a younger sample. They found clear concurrent and longitudinal linkages between secrecy from parents and poorer parent-child relationship quality in girls but comparatively weaker effects between poorer relationships and secrecy from parents among boys.

The role of socialization in reference to intimacy and connection between children and their parents may help to shed further light on our findings. Youth who feel less connected to parents tend to display more childhood secrecy generally (see Tilton-Weaver et al., 2010). However, the relationship between girls and their parents tends to be characterized by more intimacy compared to boys (Rose & Rudolph, 2006; Ruble et al., 2007). Thus, relational connection to parents tends to be emphasized more among girls than boys. It is plausible that reports of more positive relationship quality with fathers among young adult males may be a reflection of stronger feelings of connectedness between the sons and their fathers perhaps resulting in lower reported self-concealment. The absence of a corresponding association between parental relationship quality and self-concealment with sons and their mothers in our sample is difficult



to interpret, although it should be noted that the association, while not statistically significant, was in the expected direction.

The sole parenting style variable associated with self-concealment among the male participants in our study was maternal Permissiveness. Specifically, the more Permissive parenting style displayed by the mother, the greater likelihood the son is to self-conceal. As previously noted, the Permissive parenting style is characterized by emotional warmth, support, and low levels of imposed structure (Baumrind, 1971; Maccoby & Martin, 1983). It is plausible the young adult men in our study were less motivated to be forthcoming about their activities due to the relative absence of parental monitoring displayed by Permissive mothers. Permissive mothers generally are less likely to inquire about or track their child's behavior (Patock-Peckham et al., 2011). It is also possible that because males generally self-conceal more than females do, males may be more likely to conceal information without maternal encouragement (or direct request) for their son to share or disclose. An additional consideration is whether males concealed more as a function of growing independence, especially with a parent who provides low levels of structure. The lack of corresponding influence in the father-son relationship (paternal Permissiveness was not significantly linked to sons' self-concealment) may be the result of the characteristics of our sample (i.e., mothers tend to be more involved in the lives of college students than fathers; see Finley, Mira, & Schwartz, 2008).

Among our female participants we found the Authoritative parenting style by fathers to be associated with lower self-concealment and the Authoritarian parenting style by mothers was associated with higher levels of self-concealment. Our findings are somewhat consistent with those of Hartman and colleagues (2015) who found that mother Authoritarianism was related to more self-concealment and father Authoritativeness was related to less self-concealment among adolescents. It should be noted that Hartman and colleagues (2015) did not assess parenting style and self-concealment on female and male participants separately (they collapsed male and female participants). Thus, only the findings of our study based on our female participants are consistent with their study.

The finding that maternal Authoritarian parenting style is associated with greater self-concealment among the daughters in our sample may result from the general (albeit traditional) expectation that mothers will be warm and supportive caregivers of their children (Pedersen, 2012). Authoritarian style mothers, who characteristically show less warmth, may seem disconcerting to their daughters and thus promote greater self-concealment. The female participants in our study may have felt less comfortable trusting or confiding in a mother who they do not perceive as warm and supportive. This assumption is consistent with the findings of Tilton-Weaver and colleagues (2010), who found that cold parental reaction upon child disclosure is predictive of greater likelihood of child secrecy. Given that there is a general tendency among youth to turn to mothers regarding sensitive topics (Nielsen, 2014), females may fear retribution or even disinterest from Authoritarian mothers (Hartman et al., 2015).

In contrast, fathers are traditionally expected to provide structure, but not necessarily warmth (Nilsen & Sagatun, 2015). This less expected combination of warmth and structure may result in a greater perception of fatherly support and involvement among daughters of Authoritative fathers, thus resulting in a reduced tendency toward self-concealment in daughters. Hartman and colleagues (2015) also posited that Authoritative fathers may serve as an alternative source of communication among females with Authoritarian mothers.

## Study Limitations and Future Directions

There are various strengths and limitations in this study that merit consideration. First, to the authors' knowledge this is the first study to examine parenting style influences on self-concealment as a function of both parent and child gender. Second, while the majority of research in this area has examined child and adolescent populations, the present study explored correlations between perceptions of parental influence and self-concealing behavior among a sample of emerging adults (college students) where parental influences are presumed to be more indirect. While the sample size of female participants ( $n = 583$ ) in our study provided favorable statistical power analyses and was a strength of our study, the sample size of male participants in our study was comparatively smaller and could have posed an analytic limitation. Third, we measured self-concealing behavior generally as a trait measure versus "secret keeping"

as specific to the parent-child relationship. Future studies may benefit by including measures of self-concealing behavior specific to the parent-child relationship. Another potential limitation is that it was based on a sample of convenience (i.e., college students who were incentivized to complete our research protocol in exchange for course activity credits). Further, the data were collected from students from privileged backgrounds. All participants attended the same medium-sized, predominantly non-Hispanic white and Roman Catholic liberal arts university where most students live on campus, with peers, or alone. However, it should be noted that the student body observes a diverse range of religious beliefs and practices. Generalizability must be done so with due caution as findings may not generalize beyond this privileged sample. Finally, it is important to acknowledge that our interpretations regarding the effects of parenting characteristics on college student self-concealment have been construed through the lens of two-parent, heterosexual family households. In future research, it would be helpful to consider how other family structures, such as single-parent and same-sex parent households, may influence the relationship between parenting characteristics and child self-concealment.

## Summary and Conclusions

To summarize, we found significantly higher levels of self-concealment in males than in females. Results indicate that relationship quality is an important general variable in reducing self-concealment; favorable relationship quality was linked to lower levels of self-concealment among males with their fathers and females with both parents. Maternal Permissiveness was the only parenting style of significance for males, while paternal Authoritativeness and maternal Authoritarianism were significant among females. It is important to note that our findings for parenting style were robust even after accounting for the effects of relationship quality.

Our findings highlight the importance of mothers remain involved and monitor the lives of their college student sons, while also noting the impact a relationship with his father can have on a son's willingness to share information. Similarly, the results suggest that maternal warmth and paternal involvement are important factors for college student daughters. Ultimately, it is clear that, among both male and female college students, both parents impact their young adult children's concealment tendencies. It is not only mothers who play a role — fathers still matter, especially for daughters.

In conclusion, our findings suggest that continued parental involvement in the lives of their children remains significant into emerging adulthood as it pertains to the development and maintenance of self-concealment. This overall finding is consistent with the research on parental influences on college student alcohol misuse (see Ichiyama et al., 2018 for a review). Our findings carry potential practical implications for universities that may include programming to help educate parents during college orientation and reinforce the importance of their continued involvement in the lives of their college-bound children. Finally, the findings of this study contribute to the growing body of research literature examining parental influences on self-concealment.

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