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The influence of maternal self-objectification, materialism and parenting style on potentially sexualized 'grown up' behaviours and appearance concerns in 5-8 year old girls

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Abstract

There is widespread concern about young girls displaying 'grown up' or sexualized behaviours, as well as experiencing body image and appearance concerns that were previously thought to only impact much older girls The present study examined the influence of three maternal attributes, self-objectification, materialism and parenting style, on sexualized behaviours and appearance concerns in young girls. A sample of 252 Australian mothers of 5-8 year old girls reported on the behaviours and appearance concerns observed in their daughters and also completed measures of their own self-objectification, materialism and parenting style. It was found that a significant proportion of young girls were engaging with 'teen' culture, using beauty products and expressing some degree of appearance concern. Maternal self-objectification was related to daughters' engagement in teen culture, use of beauty products and appearance concern. Maternal materialism was related to girls' engagement in teen culture and appearance concern, while an authoritative parenting style was negatively related to girls' use of beauty products. The findings suggest that maternal self-objectification and materialism play a role in the body image and appearance concerns of young girls, and in so doing, identify these maternal attributes as novel potential targets for intervention.

Keywords: sexualization, body image, maternal, self-objectification, materialism, parenting

style

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potentially sexualized 'grown up' behaviours and appearance concerns in 5-8 year old

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1. Introduction

In recent years there has been widespread concern in both the public and political

spheres about the premature sexualization of girls and the idea of girls 'growing up too soon'.

The American Psychological Association's '*Report of the APA Task Force on the*

Sexualization of Girls' (2007) documented the increasingly sexualized cultural environment

in which contemporary girls live. In particular, the increased emphasis on appearance and

looking 'sexy' is evident in the content of mainstream media such as music videos, music

lyrics and magazines, as well as in the tendency for clothing and products aimed at children

to contain sexualized features (Graff, Murnen, & Krause, 2013).

One particularly damaging consequence of the societal sexualization or objectification

of women and girls is *self-objectification* (Fredrickson & Roberts, 1997). It is theorised that

the repeated experience of sexual objectification gradually socialises women and girls to

internalise an observer's perspective of their own bodies. This self-objectification is

characterised by habitual monitoring of one's outward appearance, and has been associated

with numerous negative psychological consequences, in particular increased body shame and

appearance anxiety. These, in turn, are suggested to contribute to depression, sexual

dysfunction and eating disorders – mental health outcomes which disproportionately impact

women and girls (Fredrickson & Roberts, 1997). A considerable body of research has now

demonstrated relationships between self-objectification, body shame and disordered eating in

adult women (for reviews see Moradi & Huang, 2008; Tiggemann, 2011) and also in

adolescent girls (e.g., Lindberg, Hyde, & McKinley, 2006; Slater & Tiggemann, 2002, 2010).

Although the APA report (2007) noted that the sexualization of girls is similarly likely to

have numerous negative consequences such as body shame, anxiety, and disordered eating, it also noted the surprising death of empirical evidence focused on young girls. A small amount of research has demonstrated that exposure to media predicts appearance-related concerns, dieting awareness and body dissatisfaction in girls as young as 6 years of age (Dohnt & Tiggemann, 2006; Harrison & Hefner, 2006).

While the cultural messages surrounding sexualization, particularly those provided by the mass media, have received the most attention (Zurbriggen & Roberts, 2013), young girls also receive messages about sexualization via their interpersonal relationships with others. For young children in particular, parents are likely the most influential interpersonal relationship. Not only do parents play a vital role in controlling media access (Rodgers, 2012), but they also influence how children respond to the media. For example, parents can attempt to teach their children resilience to harmful media messages and peer appearance-related comments, as well as teach critical 'media literacy' skills (for a more comprehensive review see Hart, Cornell, Damiano, & Paxton, 2015). With respect to sexualization in particular, parents are responsible for the types of products and media their daughters are exposed to, as well as playing a crucial role in the messages their daughters receive. Importantly, parents, particularly mothers, also exist within the same sexualized society and are themselves likely to be affected in some way (APA, 2007). Thus the present study focuses on maternal attributes that may influence their daughters' attitudes and behaviours. In particular, we chose to investigate the effects of maternal self-objectification, materialism and parenting style.

Early research established links between mothers' body image attitudes and daughters' perceived importance of being thin, dieting and disordered eating behaviours (e.g., Hill, Weaver, & Blundell, 1990; Levine, Smolak, Moodey, Shuman, & Hessen, 1994). Two separate Australian studies have demonstrated links between mothers' and younger children's

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body image attitudes. In the first, 5-8 year old children's perceptions of their mother's level of body dissatisfaction was shown to positively relate to their own levels of body dissatisfaction (Lowes & Tiggemann, 2003). In the second, mother's internalisation of the thin ideal was associated with 3-5 year old children attributing positive characteristics to thinner figures (Spiel, Paxton, & Yager, 2012).

In the first study to investigate maternal attributes in relation to specifically sexualized behaviours, Starr and Ferguson (2012) found that 6-9 year old girls with higher media consumption who demonstrated what they termed 'self-sexualization' (indicated by choosing a 'sexier' doll as more popular) had mothers with higher levels of self-objectification. In a recent Australian study of mothers of 4-10 year old girls, higher maternal self-objectification was related to more sexualized behaviours, as well as increased appearance concerns in their daughters (Tiggemann & Slater, 2014).

One challenge increasingly faced by parents in raising their daughters is the consumer driven nature of contemporary culture and associated materialistic values (Dittmar, 2008). Materialism can be defined as "the importance a consumer attaches to worldly possession" (Belk, 1985, p. 265). An individual with highly materialistic values believes that the acquisition of material possessions is a central life goal, an indicator of success, and key to happiness. Accordingly, mothers with highly materialistic values are apt to want to 'give their children the best' which, in a consumer driven culture, likely translates into buying their children products and clothing that might reinforce the sexualization of girls.

Materialism and other specific attitudes and practices will feed into, and also reflect, an overarching attitude to parenting, what is known as *parenting style*. Early parenting research identified two main dimensions: *demandingness* (claims parents make on their child which encompasses disciplinary efforts) and *responsiveness* (parenting actions that foster

self-regulation which encompasses being supportive of individual needs and demands; Baumrind, 1991). Based on the dichotomisation of these dimensions, four major parenting styles have been identified (Baumrind, 1968; Maccoby & Martin, 1983). *Authoritative* parents are those who are high on both demandingness and responsiveness, while *authoritarian* parents are high on demandingness but low on responsiveness. *Permissive* parents are high on responsiveness but low on demandingness, and parents who are low on both dimensions are described as having a *disengaged* parenting style. An authoritative parenting style has been associated with a wide range of benefits for children, including higher levels of school engagement and academic performance (Boon, 2007), and higher global self-esteem and lower levels of depressive symptoms (Jackson, Pratt, Hunsberger, & Pancer, 2005; Radziszewska, Richardson, Dent, & Flay, 1996). To the best of our knowledge, no research has examined the influence of parenting style on children's sexualized behaviours and appearance concerns. However, given the generalised positive benefits associated with an authoritative style, it is reasonable to assume that this may also extend to sexualized behaviours and appearance concerns.

In sum, the current study aimed to examine the impact of three maternal attributes (self-objectification, materialism and parenting style) on reported sexualized or 'grown-up' behaviours and appearance concerns in daughters. It was predicted that higher maternal levels of self-objectification and materialism would be related to higher child levels of sexualized behaviours and appearance concern while an authoritative parenting style would be protective.

2. Method

2.1 Participants

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Participants were 255 women who were mothers of 5-8 year-old girls (n=67 5 years; n=59 6 years; n=72 7 years; n=54 8 years). The mothers were aged between 24 and 49 years of age (*M*=37.95, *SD*=4.87). Nearly all of the women (98.4%) had at least one other child, with the average number of children per family being 3.2 (*SD*=0.93). Mothers' mean BMI) of 26.37 (*SD*=6.22) fell within the slightly overweight range (Garrow & Webster, 1985). Just over one third of the mothers (35.0%) had completed an undergraduate degree and a third (33.4%) had completed some form of postgraduate education. The overwhelming majority of mothers (94.1%) identified as Caucasian/White, with 2.8% Asian, 0.8% Aboriginal/Torres Strait Islander, and 2.4% 'Other'.

2.2 Materials

Participants completed a brief questionnaire that was designed for online delivery. Parents were asked to report on a number of behaviours they observed in their daughter (sexualized behaviours and appearance concerns) and were then asked a number of questions about their own attitudes and behaviours (self-objectification, materialism, and parenting style).

2.2.1 Child Sexualized Behaviours

Participants were presented with a list of potential child behaviours and asked to rate the frequency with which their daughter engaged in the behaviour using a 5-poing Likert scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=always). The specific behaviours came from two subscales identified through factor analysis by Tiggemann and Slater (2014), originally based on focus groups with parents. The first subscale, 'Engagement in teen culture,' consisted of 7 items (e.g., '*Watches music videos*', '*Is interested in celebrities*' and '*Interested in fashion/what clothes are 'in'*'). In the present sample, internal reliability was adequate (α=0.76). The second subscale, 'Use of Beauty Products', consisted of 5 items (e.g., '*Wears nail polish*', '*Wears lip gloss*', '*Wears make-up*') and also had acceptable

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internal reliability (α=0.71). These items were interspersed with a number of other everyday (non-sexualized) behaviours (e.g. '*likes playing sport or being physically active*', '*likes reading*') to present a balanced picture of child behaviour.

2.2.2 Child Appearance Concern

Following Tiggemann and Slater (2014), eight items addressed the importance of appearance and associated concerns in daughters. Example items include: "*Asks for feedback on her appearance (e.g., "Does this look good on me?", "Do I look pretty?")*", *"Examines/inspects her appearance in the mirror", and "Expresses concern about how she looks in photographs")*. Mothers were asked how frequently their daughter engaged in the behaviour on a 5-point Likert scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=always). Scores were summed to range from 8 to 40 with higher scores representing greater concern with appearance. In this sample, reliability was adequate (α=0.77).

2.2.3 Maternal Self-Objectification

Mothers' self-objectification was measured using the Body Surveillance subscale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996), which has come to be the most common measure of self-objectification (Calogero, 2011). This scale consists of 8 items (e.g., "*During the day, I think about how I look many times*") to which participants respond on a 7-point Likert scale (1=strongly disagree, 7=strongly agree). Scores are summed and averaged with high scores representing individuals who frequently monitor their bodies and think of it in terms of how it looks rather than how it feels. In the present sample, reliability was adequate (α = 0.83).

2.2.4 Maternal Materialism

Mothers' materialism was assessed using the Material Values Scale (Marsha L. Richins, 2004). This scale is a slightly shortened (15-item) version of the original 18-item

version developed by Richins and Dawson (1992). The scale contains three correlated aspects of materialism: success (e.g., "*The things I own say a lot about how well I'm doing in life*"), centrality (e.g., "*Buying things gives me a lot of pleasure*"), and happiness (e.g., "*My life would be better if I owned certain things I don't have*"). Participants respond using a 5-point Likert scale (1=strongly disagree, 5-strongly agree) with high scores representing individuals who more strongly endorse material values. In the present sample, scores were summed to create a total materialism score (possible range 15-75) and internal reliability was satisfactory (α=0.87).

2.2.5 Parenting Style

General parenting style was measured using the Parental Authority Questionnaire-Revised (PAQ-R; Reitman, Rhode, Hupp, & Altobello, 2002). This measure, designed for use with parents of children 3-8 years old, consists of 30 items. Three separate 10-item scales represent authoritarian, authoritative, and permissive parenting styles. Respondents are asked to answer statements in regards to 'your beliefs about parenting your child' using a 5-point Likert scale (1=strongly disagree, 5=strongly agree). Example items include: "*When I ask my children to do something, I expect it to be done immediately without questions*" (authoritarian), "*Once family rules have been made, I discuss the reasons for the rules with my children*" (authoritative), and "*I do not direct the behaviours, activities or desires of my children*" (permissive). Scores are summed (possible range 10-50) with higher scores representing stronger adoption of the parental style prototype. In the present sample, reliability was adequate (α=.78 authoritarian; α=.70 authoritative; α=.73 permissive) and equivalent to that reported by Reitman et al. (2002).

2.3 Procedure

Approval was obtained from the Institutional Research Ethics Committee. Participants were recruited through a number of channels, including advertisements in local

school newsletters, parenting magazines and websites, as well as through Facebook. Parents of girls aged between 5 and 8 years old were invited to complete a survey about "their experiences of raising a daughter in the modern environment". Although all parents were invited to participate, only 21 responses were recorded from fathers and so these were excluded from the present analyses. Parents were instructed to complete the questionnaire thinking about one of their daughters aged between 5 and 8 years old and were assured of the confidentiality and anonymity of their responses.

3. Results

3.1 Child Sexualized Behaviours and Appearance Concerns

Table 1 presents the percentage of girls who engaged in various behaviours at least 'sometimes' (scores 3,4 or 5) for engagement in teen culture, use of beauty products and appearance concerns. As can be seen, more than two thirds of girls listened to pop music, and around one third were interested in fashion and what clothes are 'in', interested in having the latest 'stuff' and watching music videos. Around one fifth of girls displayed an interest in celebrities and talked about boys in romantic terms. With regards to the use of beauty products, almost half the girls wore nail polish and one third wore lip gloss. Just under fifteen percent of girls wore shoes with heels.

For the appearance concern scale, examination of the first item ("*Appears satisfied or comfortable with her body*") indicated that the vast majority of girls (98.0%) appeared satisfied or comfortable with their bodies, at least sometimes. However, other items suggested behaviours indicative of appearance concern. For example, the majority of girls (77.7%) inspected their appearance in the mirror and made comments (59.1%) on it. Around half (48.2%) asked for feedback on their appearance and made comments on the appearance of others (51.1%). Finally, more than ten percent expressed concern about their appearance

(10.6%) and how they look in photographs (11.0%). There was a small positive correlation between child's age and total appearance concern, $r(288)=.14$, $p=.017$.

Both engagement in teen culture and use of beauty products showed stronger correlations with appearance concern. Specifically, higher levels of engagement in teen culture were significantly related to higher levels of appearance concern, $r(286)=.47$, $p<.001$, as was use of beauty products, $r(282)=.33$, $p<.001$.

3.2 Relationships between Maternal Attributes and Child Sexualized Behaviours and Appearance Concern

Table 2 displays the relationships between the maternal attributes (self-objectification, materialism and parenting style) and child sexualized behaviours and appearance concern. Partial correlations (controlling for age of child) were conducted. Given the number of correlations, a significance level of .01 was adopted (approximately equivalent to correlations of .16 or greater). It can be seen that maternal self-objectification was positively related to all of child engagement in teen culture, use of beauty products, and appearance concern. Maternal materialism was positively correlated with child engagement in teen culture and appearance concerns. None of the parenting styles showed any relationship with child sexualized behaviours or appearance concerns.

3.4 Predictors of Child Sexualized Behaviours and Appearance Concern

Three separate hierarchical regression analyses were performed in order to examine the combined effect of maternal attributes on the child outcomes of engagement in teen culture, use of beauty products and appearance concern. In each case, child age was entered on Step 1, followed by the maternal variables of age, BMI, education, self-objectification, materialism and parenting styles on Step 2. For child engagement in teen culture, the overall

prediction from these variables was significant, $R = .583$, $F(9, 220) = 12.60$, $p < .001$. Table 3 presents the resulting standardized regression coefficients for each step. After child age, maternal self-objectification emerged as a significant independent predictor of engagement in teen culture. Maternal materialism fell just short of significance ($p = .074$). For use of beauty products, the overall model was significant, $R = .314$, $F(9, 218) = 2.65$, $p = .006$. Again, child age and maternal self-objectification were significant predictors, with the addition of authoritative parenting style (negatively). Finally, for child appearance concern, the overall model was not significant, $R = .248$, $F(9,222) = 1.62$, $p = .111$, although maternal self-objectification was a significant unique predictor.

4. Discussion

The current study aimed to explore the issue of the premature sexualization of girls via maternal reports from mothers of 5-8 year old girls. The American Psychological Association's '*Report of the APA Task Force on the Sexualization of Girls*' (2007) highlighted the growing concern about the potential impact of girls growing up in an increasingly sexualized society, including the risk of increased body dissatisfaction and disordered eating, however noted the lack of research with young girls. A small number of empirical studies have since examined maternal attributes in relation to sexualized behaviours in young girls (Starr & Ferguson, 2012; Tiggemann & Slater, 2014). The current study focused on the role of three specific maternal attributes (self-objectification, materialism and parenting style) on the sexualized behaviours and appearance concerns of young girls.

The first contribution of the current study lies in its documentation of the frequency of potentially sexualized or 'grown up' behaviours and appearance concerns in girls as young as 5 years old. Maternal reports indicated that a sizable percentage of 5-8 year old girls were already engaging with teen culture by watching music videos and displaying an interest in

fashion, celebrities and boys, as well as wearing nail polish, lip gloss and heeled shoes. These "grown up" interests suggest that many young girls are (sadly) considerably invested in aspects of society that typically send powerful messages about the importance of appearance and looking 'sexy'. Further, around half the girls were commenting on and seeking feedback about their appearance, with fully ten percent already expressing overt concern with their appearance. Thus it appears that very young girls are taking on the concerns usually associated with much older girls. The finding that both engagement in teen culture and use of beauty products were positively related to appearance concerns indicates that 'buying into' various aspects of the sexualized consumer-driven culture is not benign for young girls. Further research is necessary to understand the full impact of living in a sexualized culture on young children's wellbeing.

The main contribution of the present study, however, lies in its investigation of the relationship between three maternal attributes and child sexualized behaviours and appearance concerns.   Here it was found that, in line with prediction, mothers' self-objectification was related to their daughters' engagement in teen culture, use of beauty products and appearance concerns. This finding is consistent with the one previous study to have examined these relationships in a sample containing older girls (Tiggemann & Slater, 2014). In addition, mothers' own level of materialism was found to be related to their daughters' engagement in teen culture and appearance concerns. It may well be that mothers who endorse beliefs that material possessions promote happiness and success in life are more likely to buy products or consent to the consumption of media that reinforce particular consumer ideals, including those about the importance of appearance and looking 'sexy'. Future research will be necessary to more fully understand the mechanisms underlying these relationships.

The present study also investigated the potential role of general parenting style. Although no significant correlations emerged between parenting style and child sexualized behaviours and appearance concerns, regression analyses indicated that an authoritative parenting style was an independent (negative) predictor of child beauty product use. In other words, the daughters of authoritative mothers (high on both responsiveness and demandingness) used fewer beauty products. This finding provides limited support that an authoritative parenting style may be beneficial in terms of decreasing child sexualized behaviours, and thus adds another positive benefit to the existing long list for this parenting style (Boon, 2007; Darling & Steinberg, 1993; Jackson et al., 2005; Parker & Gladstone, 1996).

The limitations of the present study need to be acknowledged. Given the significant challenges in obtaining reliable reports from young children, we had to rely on mothers' reports of their child's behaviours and appearance concerns. Future research might usefully aim to obtain data from young girls themselves, ideally while also obtaining parental reports to help confirm reliability. The present sample was nearly solely White and highly educated and therefore the findings may not be applicable to women of other socio-economic and ethnic backgrounds. Finally, it is possible that mothers with higher levels of self-objectification and materialism may be more likely to identify sexualized behaviours and appearance concerns in their daughters. Future longitudinal research that tracks the developmental impact of maternal attributes on child wellbeing will be needed to address questions of causality.

The findings of the current study have a number of practical implications. While educational efforts to arm young girls with critical 'media literacy' skills should continue (e.g., Bird, Halliwell, Diedrichs, & Harcourt, 2013; Ross, Paxton, & Rodgers, 2013), the current findings point to another potential avenue for intervention by highlighting the critical

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role of mothers. At a time when parents are finding it increasingly challenging to raise a daughter in an ever more sexualized society (e.g., Bailey, 2011), mothers (and fathers) need to be provided with the skills and strategies to address this challenge. In the first instance, parents could be encouraged to adhere to age-appropriate media and products for their daughters, and to engage in co-viewing of media to discuss and ideally mitigate the effects of appearance related themes and messages (Starr & Ferguson, 2012). Further, our findings suggest that improving mothers' own body image attitudes is crucial. A recent study by Dierdrichs and colleagues tested a brief, internet delivered intervention which aimed to help mothers foster positive body image in their daughters by also developing their own positive body image. Mothers exposed to the intervention showed improved weight esteem, engaged in more conversations about body image with their daughters, and importantly their daughters showed improved self-esteem at a 6 week follow-up (Diedrichs et al., in press). These promising initial results suggest that researchers should continue to explore novel and engaging ways to involve parents to examine their own body image and material values in order to improve child outcomes. Given that materialistic values are likely deeply entrenched in Western society, creative approaches are key. Harnessing the power of social media may be one avenue to explore.

In summary, the current study has added to the small but growing body of evidence documenting the worrying trend of increasing sexualized behaviours and appearance concerns in very young girls. It has also highlighted some possible influential maternal attributes, and in so doing, has identified maternal self-objectification and materialism as potential targets for future intervention efforts to combat body dissatisfaction and disordered eating in young girls.

Table 1. Percentage of girls engaging in the behaviours at least 'sometimes'.

	Percentage at least 'sometimes'
Engagement in teen culture:	
Listens to 'pop' music	68.9%
Is interested in fashion and what clothes are 'in'	34.5%
Is interested in having the latest 'stuff'	33.4%
Watches music videos	28.1%
Talks about boys in romantic terms (e.g., 'has a crush on')	21.1%
Is interested in celebrities (e.g., Miley Cyrus, Justin Bieber)	19.8%
Reads magazines such as *Total Girl*, *Disney Girl*, *Dolly*	7.6%
Use of Beauty Products:	
Wears nail polish	47.2%
Wears lip gloss	33.0%
Wears shoes with heels	14.9%
Curls or straightens her hair	8.1%
Wears makeup	5.7%
Appearance Concerns:	
Appears satisfied or comfortable with her body	98.1%
Examines/inspects her appearance in the mirror	77.7%
Makes comments on her own appearance	58.5%
Makes comments on the appearance of others	50.4%
Asks for feedback on her appearance	48.0%
Expresses concern about how she looks in photographs	11.1%
Expresses concern about her appearance	10.3%

Table 2. Correlations between maternal attributes and child sexualized behaviours and appearance concerns

	Maternal Attributes				
	Self-Objectification	Materialism		Parenting Style	
			Authoritarian	Authoritative	Permissive
Child:					
Sexualized Behaviours:					
Engagement in Teen Culture	.32**	.28**	.12	-.07	.05
Use of Beauty Products	.20*	.14	.11	-.13	.08
Appearance Concern	.20*	.18*	.03	.00	.03

*p<.01

**p <.001

Table 3. Hierarchical regression analyses to predict child engagement in teen culture, use of beauty products and appearance concern

	Engagement in Teen Culture			Use of Beauty Products			Appearance Concern		
	β	t	p	β	t	p	β	t	p
Step 1									
Child age	.48	8.21	.000	.13	2.01	.046	.06	.89	.374
	$R^2_{change} = .228$, $F_{change} (1,228) = 67.32, p < .001$			$R^2_{change} = .018$, $F_{change} (1,226) = 4.04, p = .046$			$R^2_{change} = .003$, $F_{change} (1,230) = .79, p = .374$		
Step 2									
Child age	.46	8.27	.000	.12	1.76	.080	.06	.85	.395
Maternal:									
Age	-.00	-.08	.939	-.04	-.51	.610	-.04	-.61	.545
BMI	.00	.00	.999	.05	.69	.494	-.01	-.17	.862
Education	-.07	-1.18	.241	-.06	-.80	.424	-.00	-.03	.973
Self-Objectification	.24	3.81	.000	.17	2.34	.020	.15	1.98	.049
Materialism	.11	1.79	.074	.00	.02	.983	.13	1.67	.096
Authoritarian	.04	.60	.548	.08	1.03	.303	-.02	-.24	.810
Authoritative	-.03	-.46	.649	-.16	-2.40	.017	.01	.18	.854
Permissive	.05	.70	.483	.07	.94	.349	.04	.48	.635
	$R^2_{change} = .112$, $F_{change} (8,220) = 4.67, p < .001$			$R^2_{change} = .081$, $F_{change} (8,218) = 2.45, p = .015$			$R^2_{change} = .058$, $F_{change} (8,222) = 1.72, p = .095$		

References

American Psychological Association Task Force on the Sexualization of Girls. (2007). *Report of the APA task force on the sexualization of girls*. Washington, DC: American Psychological Association Retrieved from http://www.apa.org/pi/women/programs/girls/report-full.pdf.

Bailey, R. (2011). *Letting Children be Children: Report of an Independent Review of the Commercialisation and Sexualisation of Childhood*. Retrieved from https://www.gov.uk/government/publications/letting-children-be-children-report-of-an-independent-review-of-the-commercialisation-and-sexualisation-of-childhood.

Baumrind, D. (1968). Authoritarian vs. authoritative parental control. *Adolescence, 3*(11), 255-.

Baumrind, D. (1991). Parenting styles and adolescent development. In R. M. Lerner, A. C. Petersen, & J. Brooks-Gunn (Eds.), *The encyclopedia of adolescence* (Vol. 2, pp. 746-758).

Belk, R. W. (1985). Materialism: Trait Aspects of Living in the Material World. *Journal of consumer research, 12*(3), 265-280. doi:10.2307/254373

Bird, E. L., Halliwell, E., Diedrichs, P. C., & Harcourt, D. (2013). Happy Being Me in the UK: A controlled evaluation of a school-based body image intervention with pre-adolescent children. *Body Image, 10*(3), 326-334. doi:http://dx.doi.org/10.1016/j.bodyim.2013.02.008

Boon, H. J. (2007). Low- and high-achieving Australian secondary school students: Their parenting, motivations and academic achievement. *Australian Psychologist, 42*(3), 212-225. doi:10.1080/00050060701405584

Calogero, R. (2011). Operationalizing self-objectification: Assessment and related methodological issues. In R. M. Calogero (Ed.), *Self-objectification in women:*

Causes, consequences, and counteractions (pp. 23-49). Washington, DC, US: American Psychological Association.

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*(3), 487-496. doi:10.1037/0033-2909.113.3.487

Diedrichs, P. C., Atkinson, M. J., Garbett, K. M., Williamson, H., Halliwell, E., Rumsey, N., . . . Barlow, F. K. (in press). Evaluating the impact of an online parent resource for body image: Results from a randomised controlled trial with mother-daughter dyads. *Health Psychology*.

Dohnt, H. K., & Tiggemann, M. (2006). The contribution of peer and media influences to the development of body satisfaction and self-esteem in young girls: A prospective study. *Developmental Psychology, 42*(5), 929-936. doi:http://dx.doi.org/10.1037/0012-1649.42.5.929

Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*(2), 173-206. doi:10.1111/j.1471-6402.1997.tb00108.x

Garrow, J. S., & Webster, J. (1985). Quetelet's index (W/H2) as a measure of fatness. *International journal of obesity, 9*(2), 147-153.

Graff, K., Murnen, S., & Krause, A. (2013). Low-cut shirts and high-heeled shoes: Increased sexualization across time in magazine depictions of girls. *Sex Roles, 69*(11-12), 571-582. doi:10.1007/s11199-013-0321-0

Harrison, K., & Hefner, V. (2006). Media Exposure, Current and Future Body Ideals, and Disordered Eating Among Preadolescent Girls: A Longitudinal Panel Study. *Journal of Youth and Adolescence, 35*(2), 146-156. doi:10.1007/s10964-005-9008-3

Hart, L. M., Cornell, C., Damiano, S. R., & Paxton, S. J. (2015). Parents and prevention: A systematic review of interventions involving parents that aim to prevent body

dissatisfaction or eating disorders. *International Journal of Eating Disorders, 48*(2), 157-169. doi:10.1002/eat.22284

Hill, A. J., Weaver, C., & Blundell, J. E. (1990). Dieting concerns of 10-year-old girls and their mothers. *British Journal of Clinical Psychology, 29*(3), 346-348. doi:10.1111/j.2044-8260.1990.tb00894.x

Jackson, L. M., Pratt, M. W., Hunsberger, B., & Pancer, S. M. (2005). Optimism as a Mediator of the Relation Between Perceived Parental Authoritativeness and Adjustment Among Adolescents: Finding the Sunny Side of the Street. *Social Development, 14*(2), 273-304. doi:10.1111/j.1467-9507.2005.00302.x

Levine, M. P., Smolak, L., Moodey, A. F., Shuman, M. D., & Hessen, L. D. (1994). Normative developmental challenges and dieting and eating disturbances in middle school girls. *International Journal of Eating Disorders, 15*(1), 11-20. doi:10.1002/1098-108X(199401)15:1<11::AID-EAT2260150103>3.0.CO;2-Q

Lindberg, S. M., Hyde, J. S., & McKinley, N. M. (2006). A measure of objectified body consciousness for preadolescent and adolescent youth. *Psychology of Women Quarterly, 30*(1), 65-76. doi:10.1111/j.1471-6402.2006.00263.x

Lowes, J., & Tiggemann, M. (2003). Body dissatisfaction, dieting awareness and the impact of parental influence in young children. *British Journal of Health Psychology, 8*(2), 135-147. doi:10.1348/135910703321649123

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen & E. M. Hetherington (Eds.), *Handbook of child psychology. Socialization, personality and social development* (Vol. 4, pp. 1-101). New York: Wiley.

McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale. *Psychology of Women Quarterly, 20*(2), 181-215. doi:10.1111/j.1471-6402.1996.tb00467.x

Moradi, B., & Huang, Y.-P. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly, 32*(4), 377-398. doi:10.1111/j.1471-6402.2008.00452.x

Parker, G., & Gladstone, G. (1996). Parental Characteristics as Influences on Adjustment in Adulthood. In G. Pierce, B. Sarason, & I. Sarason (Eds.), *Handbook of Social Support and the Family* (pp. 195-218): Springer US.

Radziszewska, B., Richardson, J., Dent, C., & Flay, B. (1996). Parenting style and adolescent depressive symptoms, smoking, and academic achievement: Ethnic, gender, and SES differences. *Journal of Behavioral Medicine, 19*(3), 289-305. doi:10.1007/BF01857770

Reitman, D., Rhode, P., Hupp, S. A., & Altobello, C. (2002). Development and Validation of the Parental Authority Questionnaire – Revised. *Journal of Psychopathology and Behavioral Assessment, 24*(2), 119-127. doi:10.1023/A:1015344909518

Richins, M. L. (2004). *The Material Values Scale: Measurement Properties and Development of a Short Form* (Vol. 31).

Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of consumer research, 19*(3), 303.

Rodgers, R. (2012). Body Image: Familial Influences. In T. F. Cash (Ed.), *Encyclopedia of Body Image and Human Appearance* (Vol. 1, pp. 219-225): Elsevier.

Ross, A., Paxton, S. J., & Rodgers, R. F. (2013). Y's Girl: Increasing body satisfaction among primary school girls. *Body Image, 10*(4), 614-618. doi:http://dx.doi.org/10.1016/j.bodyim.2013.06.009

Slater, A., & Tiggemann, M. (2002). A test of Objectification Theory in adolescent girls. *Sex Roles, 46*(9-10), 343-349. doi:http://dx.doi.org/10.1023/A:1020232714705

Slater, A., & Tiggemann, M. (2010). Body image and disordered eating in adolescent girls and boys: A test of objectification theory. *Sex Roles, 63*(1-2), 42-49. doi:10.1007/s11199-010-9794-2

Spiel, E. C., Paxton, S. J., & Yager, Z. (2012). Weight attitudes in 3- to 5-year-old children: Age differences and cross-sectional predictors. *Body Image, 9*(4), 524-527. doi:10.1016/j.bodyim.2012.07.006

Starr, C., & Ferguson, G. (2012). Sexy dolls, sexy grade-schoolers? Media & maternal influences on young girls' self-sexualization. *Sex Roles, 67*(7), 463-476. doi:10.1007/s11199-012-0183-x

Tiggemann, M. (2011). Mental health risks of self-objectification: A review of the empirical evidence for disordered eating, depressed mood, and sexual dysfunction *Self-objectification in women: Causes, consequences, and counteractions* (pp. 139-159). Washington, DC: American Psychological Association; US.

Tiggemann, M., & Slater, A. (2014). Contemporary girlhood: Maternal reports on sexualized behaviour and appearance concern in 4–10 year-old girls. *Body Image, 11*(4), 396-403. doi:10.1016/j.bodyim.2014.06.007

Zurbriggen, E., & Roberts, T. (2013). Fighting sexualization: What parents, teachers, communities, and young people can do. In E. L. Zurbriggen & T. A. Roberts (Eds.): The sexualization of girls and girlhood: Causes, consequences, and resistance. New York, NY: Oxford University Press.

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Highlights

- Many 5-8 year old girls are engaged with 'teen culture' and express some appearance concern.

- Maternal self-objectification relates to girls' sexualized behaviors and appearance concern.

- Maternal materialism relates to girls' sexualized behaviors and appearance concern.

- Maternal attributes play a role in the body image and appearance concerns of young girls.

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