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Brief research report

Body image and restrained eating in blind and sighted women: A preliminary study

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ABSTRACT

Sociocultural theory attributes the high levels of body image concerns and disordered eating in Western women to the promotion of an unrealistically thin body ideal. This study investigated body dissatisfaction, restrained eating, and attitudes toward appearance in visually impaired and sighted women. There were 21 congenitally blind, 11 blinded later in life, and 60 sighted. Blind women were more satisfied with their body and dieted less than sighted women. Appearance attitudes, particularly thin-ideal internalization, accounted for differences in body dissatisfaction and dieting among the three groups of women. Possible explanations for our findings are considered, including the importance of visual exposure to the media's thin ideal, as well as the usefulness of future research on blind women.

Introduction

Body dissatisfaction, "the experience of negative thoughts and esteem about one's body" (Dittmar, 2008, p. 124), has become so widespread among women, that it has been described as "normative" (Ricciardelli & McCabe, 2004), and 95% of women are estimated to diet at least once in their life (Grogan, 2008). Sociocultural theory provides the dominant framework for understanding the development of body dissatisfaction, focusing on the unrealistically thin 'body perfect' ideal transmitted and reinforced by various social influences (Dittmar, 2009). Of these, the mass media are described as the "loudest and most aggressive purveyors of images ... of ideal slender beauty" (Groesz, Levine, & Murnen, 2002, p. 2). If it is, indeed, visual exposure to thin-ideal media that promotes negative body image and problematic eating behavior, then we would expect to find systematic differences between women who are sighted and women who are blind. Yet, there is hardly any previous research on visual impairment and body image.

In sighted women, a substantial body of research has linked the degree and type of media exposure to body dissatisfaction and problematic eating behaviors (Levine & Murnen, 2009). Two meta-analyses confirm that, exposure to thin-ideal images leads to adverse effects on women's body image, respectively identifying an effect size of $d = -.31$ for body satisfaction (Groesz et al., 2002), and effect sizes of $d = -.28$ for body satisfaction and $d = -.30$ for eating behaviors (Grabe, Ward, & Hyde, 2008). Hence, the evidence for a general deleterious thin-ideal media effect is strong, consistent with sociocultural theory.

However, there is a further research strategy for examining the impact of visual media on women's body image: to investigate visually impaired women. Thus far, research has almost invariably used sighted samples, neglecting blind women, who may well offer new insights into the visual media's effect on women's body image. There is only one previous study (Baker, Sivyer, & Towell, 1998), finding that congenitally blind women had the lowest levels of body dissatisfaction and restrained eating, followed by women blinded later in life, with sighted women significantly higher on both. This study provides an important first insight into visual impairment and body image, but it did not investigate women's attitudes toward appearance, which may account for the observed group differences. A useful extension, therefore, is to investigate appearance attitudes that are known risk factors for body dissatisfaction and dieting.

The degree to which appearance is central to women's self-concept influences the extent to which they are dissatisfied with their body (Brown & Dittmar, 2005; Hargreaves & Tiggemann, 2002). Therefore, women whose appearance is important to their self-worth may be more prone to negative body image. Awareness and internalization of the thin ideal are two further risk factors of interest. A distinction must be made between simply being aware of the sociocultural thin ideal, and actively endorsing it as a personal goal. Research making this distinction found internalization to be a more powerful correlate of body image and eating problems (Cusumano & Thompson, 2001). In fact, thin-ideal internalization has been described as *the* key vulnerability factor for women's body image disturbances (Cafri, Yamamiya, Brannick, & Thompson, 2005; Thompson & Stice, 2001).

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The main aim of the current study is to examine differences in body dissatisfaction and restrained eating in blind and sighted women, addressing the novel question of whether these differences can be accounted for by three sets of appearance attitudes: appearance as a source of self-worth, thin-ideal awareness and thin-ideal internalization. Images that display and glamorize thin, attractive women are ubiquitous in advertising and the media (Dittmar, 2008), reinforcing the importance of being thin and attractive. As a consequence of their inability to see this imagery, blind women may accord less importance to appearance and may be less likely to internalize the thin ideal as their personal goal. It is not clear whether awareness would necessarily be lower in blind compared to sighted women, particularly not in women blinded later in life, since sociocultural ideals can be communicated through other than visual means, such as parental feedback (Pierce & Wardle, 1996). However, awareness is the first step to becoming conscious of the thin deal, thus potentially facilitating internalization.

Given that women blinded later in life have had several years of visual exposure to media ideals, whereas those congenitally blind had none, group differences were expected to appear in a linear fashion: congenitally blind women were predicted to be lowest on all variables, followed by women blinded later in life, and sighted women highest:

1. Blind women will report less body dissatisfaction and restrained eating than sighted women.
2. Compared to sighted women, blind women will rely less on appearance as a source of self-worth (ASW), internalize the thin ideal to a lesser extent, and possibly be less aware of the thin ideal.
3. One or more of the selected risk factors (ASW, awareness, internalization) will account for group differences in body dissatisfaction and restrained eating.

Method

Participants

Ninety-two women were recruited: 21 congenitally blind, 11 blinded later in life, and 60 sighted. Four women blinded at or before the age of 2 were classified as congenitally blind. Women blinded later in life showed great variability in length of blindness (range 16.22–97.5% of their life). To recruit blind women, the first author's pre-existing contacts in the UK, Switzerland, and Cyprus were used. We did not expect systematic country differences in the constructs measured, which was confirmed by a MANCOVA using age as a covariate and country as the factor ($F(1,84) < 2.61$, *ns*). The mean age was 27.12 years ($SD = 5.97$, range = 18–40), and the mean body mass index was 21.22 ($SD = 1.83$, range = 16.2–25.65). The three groups differed in age ($F(2, 89) = 10.36$; $p < .001$), but not in self-esteem ($F(2, 89) = .86$, $p = .73$), or BMI ($F(2, 89) = 1.71$, $p = .18$). Therefore, age was controlled for in subsequent analyses.

Materials

Body dissatisfaction was measured using an abridged 8-item scale of the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987), and *restrained eating* using the 10-item subscale of the Dutch Eating Behavior Questionnaire (DEBQ; Van Strien, Frijters, Bergers, & Defares, 1986). The extent to which women gain *self-worth* from their *appearance* was measured by the appearance subscale from Contingencies of Self-Worth (ASW; Luhtanen, Luhtanen, Cooper, & Bouvrette, 2003). Thin-ideal *awareness* and *internalization* were measured using four items from their respective subscales in the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3: Thompson, Van den Berg, Roehrig, Guarda, & Heinberg, 2003). Items were rephrased so that they were appropriate for both blind and sighted women. All scales showed satisfactory reliabilities: BSQ ($\alpha = .92$); DEBQ-R ($\alpha = .92$); ASW ($\alpha = .79$); awareness ($\alpha = .83$); internalization ($\alpha = .80$).

Procedure and ethical issues

Blind participants from England and Switzerland completed the questionnaire via email using text-to speech "screen readers", whereas those from Cyprus did so either face-to-face, or by phone. Sighted participants received the questionnaire in paper-and-pencil form. The study received ethical approval from the Sussex University Ethics Committee and was conducted according to BPS/APA ethical guidelines.

Results

Differences between groups of women

ANCOVAs, with the level of visual impairment (congenital, later in life, sighted) as the independent variable, and age as covariate, were carried out on all study variables. We selected polynomial trend analyses as the most appropriate and direct test of our hypothesis that group differences follow a linear pattern. All findings are shown in Table 1.

Table 1
Body image and eating in blind and sighted women: means (standard errors) and group difference statistics.

	Congenitally blind	Blinded later	Sighted	F (2, 88)	d for mean diff. sighted/blind later	d for mean diff. congenital/later	Effect size[c]	Linear trend[d]	Quad. trend[d]
Body dissatisfaction (BD) and restrained eating (RE)									
BD	1.73[a] (0.22)	2.02[a] (0.31)	2.92[b] (0.13)	11.17***	0.80	0.26	.20	.86***	.25
RE	2.36[a] (0.20)	2.38[a] (0.28)	2.85[b] (0.12)	2.76(*)	0.52	0.02	.06	.35*	.19
Risk factors									
ASW	2.77[a] (0.22)	4.16[b] (0.31)	3.95[b] (0.13)	12.18***	−0.18	1.17	.22	.83***	−.66*
Awareness	3.32[a] (0.19)	3.89[b†] (0.27)	4.01[b] (0.11)	4.90**	0.13	0.63	.10	.49**	−.18
Internalization	2.90[a] (0.22)	3.92[b] (0.31)	4.33[b] (0.13)	15.80***	0.36	0.89	.26	1.01***	−.25
BD and RE with risk factors controlled									
BD	2.39[ab] (0.21)	1.99[b] (0.27)	2.69[a] (0.12)	2.99(*)	0.62	−0.35	.07	.21	.46
RE	2.79[a] (0.20)	2.37[a] (0.25)	2.70[a] (0.11)	0.94	0.37	−0.47	.02	−.06	.31

Note. [ab]Different superscripts indicate significantly different means. [c]Partial eta^2. [d]Contrast estimates.
† This mean differs only marginally from the mean for congenitally blind women.
*** $p < .001$.
** $p < .01$.
* $p < .05$.
(*) $p < .07$.