



Intense-personal celebrity worship and body image: Evidence of a link among female adolescents

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Objectives. The aim of the present study was to examine the relationship between celebrity worship and body image within the theoretical perspective of intense para-social relationships with celebrities.

Design. Correlation and multiple regression analyses were used to examine the relationships between celebrity worship and body image.

Method. Three samples, 229 (102 males and 127 females) adolescents, 183 (88 males and 95 females) full-time university undergraduate students, and 289 (126 males and 163 females) adults were administered an amended version of the Celebrity Attitude Scale, the Attention to Body Shape Scale, and the Body Shape Questionnaire–Revised.

Results. Significant relationships were found between attitudes toward celebrities and body image only among female adolescents. Multiple regression analyses suggested that Intense-personal celebrity worship accounted for unique variance in scores in body image.

Conclusions. Findings suggest that in female adolescents, there is an interaction between Intense-personal celebrity worship and body image between the ages of 14 and 16 years, and some tentative evidence has been found to suggest that this relationship disappears at the onset of adulthood, 17 to 20 years. Results are consistent with those authors who stress the importance of the formation of para-social relationships with media figures, and suggest that para-social relationships with celebrities perceived as having a good body shape may lead to a poor body image in female adolescents.

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In recent years there has been considerable research on the association between the mass media and eating disorders, particularly in adolescent females (Hamilton & Waller, 1993; Harrison, 1997, 2000; Harrison & Cantor, 1997; Stice, Schupak-Neuberg, Shaw, & Stein, 1994; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). One of the most feared effects of the media is that, by glamorizing thin celebrities and models, they promote body shapes that are unrealistic and unattainable for many young people. Image-conscious media users may then adopt inappropriate eating behaviours that can result in pathological conditions such as anorexia.

So worried are policy makers by these apparent media effects that in the UK, both the government and the British Medical Association have in recent times campaigned for media outlets and modelling agencies to use a more representative range of female body sizes. In health psychology too, there is a growing acknowledgement that media representations may play an important role in shaping health beliefs and behaviours (Lyons, 2000).

Content analyses of media lend weight to the argument that the 'ideal' female figure is becoming thinner. Garner, Garfinkel, Schwartz, and Thompson (1980) carried out an analysis of Miss America winners and *Playboy* centrefolds across the 1959–1978 period and found a significant trend towards thinner, lighter models, despite overall increases in the weight of American women during this period. This study was replicated 10 years later and the trend appeared to be consistent through the 1980s (Wiseman, Gray, Mosimann, & Ahrens, 1990). No equivalent data exists for the ideal male figure, although far more female characters on television can be described as 'thin' (69%) compared with male characters (less than 18%) (Silverstein, Perdue, Peterson, & Kelly, 1986).

This proliferation of thin female images has been blamed for rises in eating disorders and general body dissatisfaction in adult women; in one survey, the vast majority of American women wished they could be thinner (Thompson *et al.*, 1999). The desire for thinness is most problematic during adolescence when the body is still growing. It is ironic that at the age of 15, when crises of identity and anxieties about attractiveness are at their most acute, girls typically experience an increase in the distribution of fat around their hips and thighs, further denying them the contemporary cultural ideal (Dittmar *et al.*, 2000). Consequently, low-fat dieting is an attractive option for teenage girls, a practice that is encouraged by magazine advertising and feature articles (Andersen & DiDomenico, 1992). In addition, teenage girls' magazines frequently contain information about slimming and binge eating, and other tactics used to counter the inevitable accumulation of body fat. While magazines intend to raise awareness of the dangers of these behaviours, at the same time they may unintentionally provide useful ideas for desperate readers.

Though not the only influence, a personal emphasis on body shape and weight has been theorized to be central to eating disorders (Beebe, 2000; Cooper & Fairburn, 1993). In terms of definitions of personal emphasis on body image and shape, there have been attempts during the 1990s to standardize the measurement of body image, particularly in terms of reliability and validity of the measures used. Maltby, Lewis, and Hill (2000a, b) provide reviews of a number of current measures of attitudes towards body image or body shape. A number of measures are available to measure body image, shape preoccupation, and body image distortions. These include the Body Attitude Questionnaire (Ben-Tovim & Walker, 1991), the Body Investment Scale (Orbach & Mikulincer, 1998), Body Shape Questionnaire (Cooper, Taylor, Cooper, & Fairburn, 1987; Mazzeo, 1999), and Attention to Body Shape Scale (Beebe, 1995). Though finer

distinctions can be made between the set of items used in the scales to measure body image (Ben-Tovim & Walker, 1991; Orbach & Mikilincer, 1998), all the measures mentioned are intended to measure a broad range of attitudes towards satisfaction with body shape or body image preoccupation.

The majority of studies in the literature on media influence and eating behaviour have focused on the cognitive processes around attitudes towards body shape/image that are believed to mediate the relationship; including body image dissatisfaction (Botta, 2000; Shaw, 1995; Thornton & Maurice, 1997), distorted body size estimation (Hamilton & Waller, 1993; Lavine, Sweeney, & Wagner, 1999), and ideal-body type internalization (Stice *et al.*, 1994). A variety of methods have been used to examine these cognitions in relation to media imagery. Experimental studies have presented *thin media* images to participants under laboratory conditions and found significant differences between pre- and post-treatment measures; particularly for participants under 19 years of age (see the recent meta-analytic review by Groesz, Levine, & Murnen, 2002).

In addition to experimental research, there have been various studies using survey-type designs in which overall amounts of media exposure are used to predict the body image measures. Where general media use is recorded in terms of total viewing time, there is little association with measures of body dissatisfaction even among adolescent samples (Borzekowski, Robinson, & Killen, 2000). Other studies have been more selective in their measures of media exposure; for example, Stice *et al.* (1994) compiled an aggregate score comprising undergraduates' exposure to selected genres of magazines and television. This marginally more sensitive measure predicted eating disorder symptomatology, but neither ideal-body type internalization nor body dissatisfaction. Likewise, in Harrison's (1997) study, viewing of 'thin shows' such as teen-oriented soaps predicted anorexic symptoms but not body dissatisfaction.

Increasingly, researchers have moved away from the simplistic idea that mere 'exposure' to media is enough by itself to trigger body image disturbance and eating disorders. This is consistent with research that treats media audiences as active users and meaning-makers rather than passive recipients of mediated stimuli (Arnett, Larson, & Offer, 1995; Giles, 2003; Livingstone, 1998). For example, Harrison (1997) included in her study a measure of attraction towards thin celebrities that predicted all the measures of eating disorder symptomatology and body image disturbance in her undergraduate sample. In a later study, Botta (2000) found that while simply viewing thin media programmes did not predict body dissatisfaction, comparison with the thin images, and idealization of those images predicted both body dissatisfaction and the drive for thinness.

The present study chose to examine the role of more specific media interests in shaping body image cognitions. One of the most important psychological influences of media, particularly during adolescence, is the formation of para-social relationships (Giles, 2002) with media figures. These may take the form of intense attachments to celebrities where the values of the celebrity are highly influential, providing young people with attitudinal and behavioural exemplars (Larson, 1995). During adolescence, these figures may begin to usurp the role accorded to parents in earlier periods as teenagers become increasingly independent (Giles & Maltby, 2004). As an example, Heilman (1998) documents the case of 'Kara', who at 14, amid some domestic unrest, latched on to fashion model Kate Moss ('so cool, I wanted to be like her, under control'). By dieting, she strove to emulate Moss's figure, but as with many developing girls it was not possible to remain healthy on such a diet and she was eventually diagnosed as anorexic. In trying to provide a theoretical context, it is useful to note that several

authors have drawn on social comparison theory (Festinger, 1954) as an explanatory mechanism for the effects of media on adolescent body image (Botta, 2000; Wilcox & Laird, 2000). More specifically, Heinberg and Thompson (1992) found that body dissatisfaction in adolescent females increased after they were asked to compare themselves with thin celebrities. This process seems to begin around the age of 12 and 13, the period when eating disorders are most likely to manifest themselves (Martin & Kennedy, 1993).

There is reason to believe that among present populations, there are some subsamples that may be more open to the influence of the media than others. A lot of research has concentrated on sex differences and the vulnerability of adolescents to the media and media images (Edens & McCormick, 2000; Pirouznia, 2001; Wood, Senn, Desmarais, Park, & Verberg, 2002), particularly around body image. Recently, Field, Camargo, Taylor, Berkey, and Colditz (1999) demonstrated how females on visual media (television, magazines) have exerted influence on girls' weight beliefs and behaviours, including purging. Ricciardelli, McCabe, and Banfield (2000) showed that media were not only influential among adolescent boys in determining happiness in body shape, but also in encouraging exercise. McCabe, Ricciardelli, and Finemore (2002) found that girls rather than boys were likely to be influenced by the media in terms of weight loss.

Additionally, recent research has suggested that the type of interactions between individuals and the celebrities they worship may have important consequences for aspects of mental health. McCutcheon, Lange, and Houran (2002) proposed an 'Absorption-Addiction' model to explain such cases of celebrity worship. According to this model, a compromised identity structure in some individuals facilitates psychological absorption with a celebrity in an attempt to establish an identity and a sense of fulfilment. The dynamics of the motivational forces driving this absorption might in turn take on an addictive component, leading to more extreme (and perhaps delusional) behaviours to sustain the individual's satisfaction with the para-social relationship. Several studies based on the Celebrity Attitude Scale (McCutcheon *et al.*, 2002; Maltby, Houran, & McCutcheon, 2003; Maltby, McCutcheon, Ashe, & Houran, 2001) are consistent with this proposed model and suggest that there are three increasingly more extreme sets of attitudes and behaviours associated with celebrity worship.

Low levels of celebrity worship have *Entertainment-social* value and comprise attitudes and behaviours like 'my friends and I like to discuss what my favourite celebrity has done'. This stage reflects the social aspects of celebrity worship and is consistent with Stever's (1991) observation that fans are attracted to a favourite celebrity because of their perceived ability to entertain and capture attention. By contrast, intermediate levels of celebrity worship are characterized by more *Intense-personal* feelings, defined by items like 'I have frequent thoughts about my favourite celebrity, even when I don't want to'. This stage arguably reflects individuals' intensive and compulsive feelings around the celebrity, akin to the obsessional tendencies of fans often referred to in the literature (Dietz *et al.*, 1991; Giles, 2000). The most extreme expression of celebrity worship is labelled *Borderline-pathological*, as exemplified by items like 'if someone gave me several thousand dollars (pounds) to do with as I please, I would consider spending it on a personal possession (like a napkin or paper plate) once used by my favourite celebrity'. This factor is thought to reflect an individual's social-pathological attitudes and behaviours that are held as a result of worshipping a celebrity.

Recent studies have suggested that the Intense-personal aspects of celebrity worship are associated with poorer mental well-being through indices of neuroticism, worry, anxiety, and depression (Maltby *et al.*, 2001; Maltby, Houran, & McCutcheon, 2003), suggesting that people scoring high on the measure of Intense-personal aspects of celebrity worship may be vulnerable to establishing worry or distortions in their body shape.

The aim of the following study was to examine the relationship between celebrity worship and body image. Given the importance of celebrity attachments in adolescence, it is anticipated that the association between body image and interest in a same-sex celebrity with an admirable body will be stronger in this age group than either undergraduates or adults in general. Based on existing findings, it is also expected that the association will be stronger for females than males and associated more readily with an Intense-personal interest in celebrity worship, rather than other dimensions of celebrity worship.

Method

Sample

Data were collected from three samples.

Sample 1

Two hundred and twenty-nine (102 male and 127 female) school-aged adolescents from the north of England, aged between 14 and 16 years ($M = 15.11$; $SD = 0.11$). The most frequently cited demographic categories were White ($N = 136$), with all respondents reporting to be single.

Sample 2

One hundred and eighty-three (88 male and 95 female) full-time university undergraduate students from the north of England, aged between 18 and 30 years ($M = 19.76$; $SD = 1.8$). The most frequently cited demographic categories were White ($N = 130$) and single ($N = 177$).

Sample 3

Two hundred and eighty-nine (126 male and 163 female) adults from the north of England, aged between 22 and 60 years ($M = 34.94$; $SD = 9.3$). Respondents were sampled from a number of workplaces, church congregations and local community groups. The most frequently cited demographic categories were White ($N = 207$), married ($N = 193$), employed ($N = 196$), and 'O'/GCSE educational level or its equivalent ($N = 84$).

Measures

The Celebrity Attitude Scale (CAS)

The scale used in this study was a 23-item version of a 34-item scale (McCutcheon *et al.*, 2002), but recent findings (Maltby, Houran, Lange, Ashe, & McCutcheon, 2002; Maltby *et al.*, 2003) suggest a 22-item version for use among UK samples. Items included in the scale measure aspects of Entertainment-social attitudes ('my friends and I like to discuss what my favourite celebrity has done [item 4]'), and 'learning the life story of my favourite celebrity is a lot of fun [item 15]'), Intense-personal aspects of celebrity

worship ('I consider my favourite celebrity to be my soul mate [item 10]', and 'I have frequent thoughts about my favourite celebrity, even when I don't want to' [item 11]), and borderline pathological ('if someone gave me several thousand dollars to do with as I please, I would consider spending it on a personal possession (like a napkin or paper plate) once used by my favourite celebrity' [item 20] and 'if I were lucky enough to meet my favourite celebrity, and he/she asked me to do something illegal as a favour I would probably do it' [item 17]). Response format for the scale comprises a 5-point scale with anchor points being *strongly agree* equal to 5 and *strongly disagree* equal to 1.

When completing the scale, respondents are usually asked to think of a 'celebrity,' a famous living person (or one that had died during their lifetime) that they greatly admire, and then respond to the questions relating to that celebrity. However, on this occasion respondents were asked to select a famous living person of their own sex whose body/figure they liked and admired. High scores indicate a tendency to be a celebrity-worshipper.

The Attention to Body Shape Scale (Beebe, 1995)

The Attention to Body Shape Scale contains seven items that assess the importance that a respondent places on body shape and weight. Each item is rated on a 5-point scale ranging from *Definitely disagree* to *Definitely agree*. Possible scores range from 7 to 35, with higher scores indicating greater attention to issues related to body shape and weight (Beebe, 2000). The Attention to Body Shape Scale demonstrates satisfactory reliability, with coefficient alphas ranging between .70 and .85, and a satisfactory 2-week test-retest reliability (between .76 and .87) among college samples (Beebe, 1995, 1998). The scale is an attitudinal measure of body shape, and is found to be a relatively unconfounded measure (by variables such as race, culture) of body image (Beebe, 2000). The scale has demonstrated concurrent validity by its significant relationship with measures of eating pathology, body image, dieting, body-related peer pressure, and general appearance orientation (Beebe, 1995, 1998, 2000; Beebe, Holmbeck, & Greskiewicz, 1999).

The Body Shape Questionnaire-Revised (BSQ-R-10; Mazzeo, 1999)

The BSQ is a 10-item version of the widely used and cited Body Shape Questionnaire (Cooper et al., 1987). Items are rated on a 6-point scale: *Never* (1), *Rarely* (2), *Sometimes* (3), *Often* (4), *Very often* (5), and *Always* (6), with higher scores indicating greater body image preoccupation (Mazzeo, 2000). The Body Shape Questionnaire-Revised comprises one factor, and demonstrated construct validity with its relationship to two measures of disordered eating, the EAT-26 and BULIT-R (Mazzeo, 1999; 2000). Two of the items are gender specific—items 2 and 10. To make these items suitable for the purposes of the present study, these items were amended to 'people of your own sex/gender.'

The advantage of using the following two Body Shape scales, given the proposed scale of the research among a number of different samples, is that both these scales are relatively short in length compared to other scales available for use, have been used extensively among non-clinical samples, and use relatively simple language to examine body shape/body image pre-occupation.

Results

To assess the internal reliability of the scales used in the study, Table 1 shows principal components analysis with oblimin rotation of the Celebrity Attitude Scale, using the scree test as an indicator of the number of factors that need to be extracted.

The table shows that the Celebrity Attitude Scale, in line with previous findings, splits into three factors: Entertainment-social, Intense-personal, and Borderline-pathological.

Table 1. Principal components analysis with oblimin rotation of the items of the celebrity attitude scale

Item	Component		
	1	2	3
1. If I were to meet this my favourite celebrity in person, he/she would already somehow know that I am his/her biggest fan	.21	.52	.19
2. I share with my favourite celebrity a special bond that cannot be described in words	-.17	.68	.07
3. I am obsessed by details of my favourite celebrity's life	.02	.75	-.05
4. My friends and I like to discuss what my favourite celebrity has done	.85	.03	-.13
5. When something good happens to my favourite celebrity I feel like it happened to me	-.01	.70	.06
6. One of the main reasons I maintain an interest in my favourite celebrity is that doing so gives me a temporary escape from life's problems	.82	.09	-.14
7. I have pictures and/or souvenirs of my favourite celebrity which I always keep in exactly the same place	.09	.62	.02
8. The successes of my favourite celebrity are my successes also	.12	.51	.04
9. I enjoy watching, reading, or listening to my favourite celebrity because it means a good time	.83	.10	-.10
10. I consider my favourite celebrity to be my soul mate	.07	.77	-.20
11. I have frequent thoughts about my favourite celebrity, even when I don't want to	.06	.70	.08
12. When my favourite celebrity dies (or died) I will feel (or I felt) like dying too	-.16	.74	.06
13. I love to talk with others who admire my favourite celebrity	.75	.08	-.05
14. When something bad happens to my favourite celebrity I feel like it happened to me	.77	-.05	.08
15. Learning the life story of my favourite celebrity is a lot of fun	.77	.07	-.06
16. I often feel compelled to learn the personal habits of my favourite celebrity	.03	.04	.72
17. If I was lucky enough to meet my favourite celebrity, and he/she asked me to do something illegal as a favour, I would probably do it	.07	-.10	.69

Table 1. (Continued)

Item	Component		
	1	2	3
18. It is enjoyable just to be with others who like my favourite celebrity	.82	– .09	.21
19. When my favourite celebrity fails or loses at something I feel like a failure myself	.85	– .07	.21
20. If someone gave me several thousand dollars to do with as I please, I would consider spending it on a personal possession (like a napkin or paper plate) once used by my favourite celebrity	– .03	.04	.76
21. I like watching and hearing about my favourite celebrity when I am in a large group of people	.83	– .09	.07
22. Keeping up with news about my favourite celebrity is an entertaining pastime	.80	– .12	.23

Note. For the purposes of the present study the words *my favourite celebrity* were replaced by *this celebrity*.

From the principal components analysis of the 17 items belonging to the two body image scales (the Attention to Body Shape Scale; the Body Shape Questionnaire–Revised), the scree test suggested one component to be extracted. Loadings for an unrotated solution suggested that all the items loaded on the unrotated component with the lowest loading being .49. This suggests that scores of both scales represent among the present sample, one dimension of attention to body image. Therefore a composite score was developed to measure attention to body image. Because the response formats of the two scales differ (one has six possible choices, the other five), a factor score was computed from the unrotated component; and is labelled in all subsequent analysis as Attention to Body Shape.

Table 2 shows the mean scores and analysis of variance statistics for all the measures by sample and sex. For this purpose and to provide a comparison of mean scores for future research for both the Attention to Body Shape Scale and the Body Shape Questionnaire–Revised, the raw scores for both scales (not the computed factor score) are given in this table. For the Celebrity subscales, the main effect is on sample, with adolescents scoring higher on all the measures than students and older adults. That adolescents show greater preoccupation with celebrities than older persons is consistent with theory and previous research (Ashe & McCutcheon, 2001; Giles, 2002; Giles & Maltby, 2004; Larson, 1995).¹ For the body image measures, females are found to score significantly higher than males in

¹ Some caution may be needed in interpreting the present findings that adolescents scored higher on the Celebrity pathology scale. Rather than young persons necessarily showing pathological tendencies, these higher scores may equally be the result of over-enthusiasm or a tendency to make outrageous claims about the loyalty to a celebrity.

Table 2. Analysis of variance comparisons of mean scores and standard deviations of all the scales by sex and sample

	Adolescents				Students				Adults				Effect by sex F	Interaction by sex and sample F
	Males		Females		Males		Females		Males		Females			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
CAS-Entertain-soc	21.61 (8.3)	24.12 (8.4)	21.04 (8.7)	21.52 (10.4)	16.79 (7.6)	16.83 (8.2)	33.85**	2.31	1.42					
CAS-Intense-pers	25.32 (7.6)	25.51 (7.2)	24.24 (6.2)	23.34 (6.8)	20.81 (8.0)	21.10 (7.7)	23.27**	0.03	0.39					
CAS-Border-path	5.29 (2.5)	6.06 (2.9)	3.92 (2.7)	3.71 (2.5)	3.39 (2.2)	3.47 (2.3)	52.41**	1.57	2.17					
Att to Body Shape	19.08 (5.4)	21.22 (4.8)	19.86 (3.8)	22.35 (5.3)	18.94 (5.3)	23.90 (5.4)	4.13*	68.43**	5.56**					
Body Shape Ques	27.88 (6.2)	30.92 (7.3)	28.59 (5.2)	31.94 (5.3)	28.36 (7.5)	33.27 (7.9)	2.80	49.42**	1.31					

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

their attention to body shape, and body image preoccupation. This is also consistent with theory (Andersen & DiDomenico, 1992; Dittmar *et al.*, 2000).

The usefulness of this comparison of groups suggests the need to separate out samples by age and sex to compare possible samples that might be considered vulnerable (adolescents, females) against those that are not (i.e. older adults and males). The appropriateness of this separation is supported further by the lack of any significant relationship for either males or females, between age and body shape for either body shape questionnaire (Body Shape Questionnaire—10: males, $r(314) = .07, p > .05$; females, $r(383) = .04, p > .05$; Attention to Body Shape: males, $r(314) = .02, p > .05$; females, $r(383) = .07, p > .05$) or the computed factor score using the items from both the scales (males, $r(314) = .05, p > .05$; females, $r(383) = .06, p > .05$). This finding suggests that there is no need to examine the relationship between celebrity worship and attention to body shape within the context of the age range across the entire life span.

Tables 3, 4, and 5 show the Pearson product-moment correlation coefficients between all the measures among adolescents, students and adults respectively. Among students, adults, and adolescent males no significant relationships occur between celebrity worship and either attention to body shape or body shape preoccupation. However, among female adolescents, significant positive associations were found between both Intense-personal aspects of celebrity worship and pathological aspects of celebrity worship and both the measure of attention to body shape and the measure of body shape preoccupation.

Table 3. Pearson product-moment correlation coefficients between the measures among adolescents

	Males above the diagonal (N = 102)			
	CAS-ES	CAS-IP	CAS-Path	Att to body shape
CAS-Entertainment-social		.16	.14	.02
CAS-Intense-personal	.23*		.17	.16
CAS-Borderline-path	.22*	.24**		-.04
Attention to Body Factor score	.09	.42**	.20*	
Females below the diagonal (n = 127)				

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

Table 4. Pearson product-moment correlation coefficients between the measures among students

	Males above the diagonal (N = 88)			
	CAS-ES	CAS-IP	CAS-Path	Att to body shape
CAS-Entertainment-social		.35**	.16	.08
CAS-Intense-personal	.06		.21*	.18
CAS-Borderline-path	-.02	.28**		.16
Attention to Body Shape factor score	.07	.16	.02	
Females below the diagonal (N = 95)				

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

Because of the significant correlation between Celebrity attitude scores for Intense-personal reasons and Celebrity attitude scores for pathological reasons among female adolescents, a simultaneous multiple regression was performed. The two celebrity

Table 5. Pearson product–moment correlation coefficients between the measures among adults

	Males above the diagonal (<i>N</i> = 126)			
	CAS–ES	CAS–IP	CAS–Path	Att to body shape
CAS–Entertainment-social		.13	.22*	–.02
CAS–Intense-personal	.16*		.10	.15
CAS–Borderline-path	.17*	.16*		.17
Attention to Body Shape factor score	–.01	–.07	.03	
	Females below the diagonal (<i>N</i> = 163)			

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

worship subscale measures were used as the independent variables, and the attention to body shape factor score was used as a dependent variable. For attention to body shape, the regression statistic was significantly different from zero ($F(2, 124) = 15.16, p < .01$; $r = .44, r^2 = .20, \text{adjusted } r^2 = .18$). Celebrity subscale scores for Intense-personal reasons accounted for unique variance in predicting scores on the attention to body shape scale ($B = .37, \beta = .40, sr^2 = .16, t = 4.93, p < .01$) but not celebrity worship for pathological reasons ($B = .14, \beta = .15, sr^2 = .02, t = 1.85, p > .05$).

A relationship between celebrity worship for Intense-personal reasons and attention to body shape occurs in female adolescents but not female students and adults sampled from a general population. Therefore, though the relationship between celebrity worship for Intense-personal reasons and attention to body shape is not a factor across the life span, the findings suggest that any relationship between celebrity worship and body image disappears at the onset of adulthood. There is a way of usefully extending these findings and that is by attempting to identify across the early age range (from adolescent to early adulthood) when the relationship between celebrity worship for Intense-personal reasons and attention to body shape begins and when it ceases to be related. Table 6 shows the Pearson product–moment correlation coefficients between celebrity worship for Intense-personal reasons and attention to body shape for ages ranging from 14 to 20 years.

Table 6. Pearson product–moment correlation coefficients between celebrity worship for intense-personal reasons and attention to body shape by age of 14 to 20 years

Age (years)	Pearson product moment correlation between celebrity worship for intense personal reasons and body shape
14 (<i>N</i> = 28)	.42*
15 (<i>N</i> = 32)	.66**
16 (<i>N</i> = 43)	.40**
17 (<i>N</i> = 24)	.11
18 (<i>N</i> = 30)	.10
19 (<i>N</i> = 22)	.06
20 (<i>N</i> = 25)	.01

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

The present findings suggest that a relationship between celebrity worship for Intense-personal reasons and attention to body shape is apparent at age 14, heightens at age 15, lowers at age 16 and disappears from the age of 17 onwards.

Discussion

Three clear findings emerged from the present study. First, when celebrity worship is related to poorer body image it is among female adolescents and none of the other sample groups. This suggests that despite indications that males may be increasingly becoming more body conscious (Dittmar *et al.*, 2000; Groesz *et al.*, 2002), among the present samples, and between measures of celebrity worship and body image, any relationship between celebrity worship and body image is among females only.

Second, when celebrity worship is related to poorer body image, it may be confined to one particular orientation toward celebrity worship: Intense-personal.² Therefore, it can be argued that it is only those female adolescents who have an Intense-personal relationship (who do not discuss the celebrity with their friends, and prefer to retain an exclusive para-social interaction with the celebrity) with the media figure whose body they admire that are likely to suffer from poor body image.

Third, in terms of the development of this relationship between celebrity worship and body image, a relationship between celebrity worship and body image occurs in female adolescents but not female students and females adults sampled from a general population. The analysis of the relationship between celebrity worship for Intense-personal reasons and body image across the age range of 14 to 20 suggests that any relationship between celebrity worship and body image disappears at the onset of early adulthood. However it is worth noting that at present these correlations are reported among relatively small samples, and future research is needed to examine the relationship between celebrity worship for Intense-personal reasons and body image among larger samples.

Two further suggestions can be made for future research. First, further research is needed to consider whether present findings can be considered within a wider symptomatology. Recent research suggests that the Intense-personal aspects of celebrity worship are related to higher levels of depression and anxiety (Maltby *et al.*, 2001). As body image is also related to these mental health variables (Cargill, Clark, Pera, Niaura, & Abrams, 1999; Tantleff-Dunn, 1998), it is of interest to examine how all these different variables may be interrelated. Second, this study emphasized celebrity worship with a celebrity whose body respondents admired, but not necessarily the size of the body shape of the celebrity. Research into body image and media effects emphasises the importance of thin body images (Groesz *et al.*, 2002), therefore future research may look at the body shape of an individual's favourite celebrity and how this is related to body image.

The present findings suggest that the type of interaction the individual has with the media is important in determining whether there is an effect on body image. Correlational research suggests three possible causal links between Intense-personal celebrity worship and poor body image. The first is that female adolescents who have Intense-personal feelings toward a celebrity with an attractive body shape develop a

² Caution must be observed in this statement as the scores on the borderline-pathological scale demonstrate low variability, and this may also explain why no relationship was observed here.

poor body image. The second is that those individual(s) who have a poor body image may develop an obsession with a media celebrity who they perceive as having a good body shape. The third, and perhaps most likely, is that the two processes are part of a cycle and that Intense-personal celebrity worship of a celebrity with a perceived good body shape leads to a poor body image, and that poor body image creates a deep interest in certain celebrities because of their body shape. However, further research is needed to develop these findings within the context of other research. Variables such as self-esteem, peer influence, parental influence, sexuality (particularly in light that this study focused on same-sex identity), personality factors such as neuroticism (Wade *et al.*, 2000), disability and social class (Field *et al.*, 1999; Henderson-King & Henderson-King, 1997; Polce-Lynch, Myers, Kliewer, & Kilmartin, 2001; Ricciardelli *et al.*, 2000; Wilcox & Laird, 2000) need to be included to allow comprehensive models to be developed which outline a number of mediating factors that are involved in the relationship between the media, body image and eating disorders.

Notwithstanding speculations to the different theoretical interpretations and potential models, the present findings are helpful, as they enable clinicians and researchers to identify individual differences among those who may be most at risk from suffering from poor body image, and may indicate the onset or presence of an eating disorder. Furthermore, there are educational opportunities for addressing this potential problem. West and Sweeting (2002) recommend media training for schools in relation to dieting and body image. It may be possible for schools (for example, in Personal and Social Education classes) to include discussions of celebrity worship and possible implications, aimed at adolescent girls at the ages identified as vulnerable in the present study (West & Sweeting, 2002).

In summary, findings suggest that in female adolescence, there is an interaction between Intense-personal celebrity worship and body image, and some tentative evidence is found to suggest that this relationship disappears at the onset of adulthood. Results are consistent with those authors who stress the importance of the formation of para-social relationships with media figures, and suggest that para-social relationships with celebrities perceived as having a good body shape may lead to a poor body image in female adolescents.

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Received 20 March 2002; revised version received 22 September 2003