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Short Communication

Exposure to 'lad magazines' and drive for muscularity in dating and non-dating young men

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Abstract

Existing research argues that the muscular male body ideal, often promoted in the media, is associated with male body dissatisfaction and increasingly problematic attempts to attain unrealistic body shape by young males. The present study sought to examine the influence of "lad magazines", a highly popular media sector over the last decade, and also the role of dating, or relationship, status, on the association between internalization of appearance ideals and drive for muscularity. One hundred and Sixty-one males between the ages of 18 and 36 from a UK university completed measures of exposure to lad magazines, eating disturbance, sociocultural attitudes towards appearance, and drive for muscularity. Internalization of appearance ideals was found to be a possible mediator of the relationship between lad magazine exposure and both drive for muscularity and eating disturbance. These effects were significantly stronger among non-dating males, suggesting that, especially for single men, preoccupation with attaining the ideal male body may be enhanced by the use of media that promote traditional masculine ideals. © 2008 Elsevier Ltd. All rights reserved.

Keywords: Muscularity; Media; Body dissatisfaction; Body dysmorphia; Appearance; Sociocultural attitudes; Relationships

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1. Introduction

For several years now, research has demonstrated that male body image is, like female body image, vulnerable to the influence of the media (Labre, 2002; McCabe & Ricciardelli, 2004; Tiggemann, 2005). Experimental studies have found that a single exposure to muscular and athletic male bodies can produce body dissatisfaction in males (Agliata & Tantleff-Dunn, 2004; Leit, Gray, & Pope, 2002). Also, exposure to certain types of male-oriented media has been associated with higher drive for muscularity (Vartanian, Giant, & Passino, 2001).

In recent decades, Western cultural standards have moved in the direction of a muscular ideal for the male body (Leit et al., 2002; Pope, Olivardia, Gruber, & Borowiecki, 1999). At the same time there has been increasing 'objectification' of the male body, particularly in advertising (Rohlinger, 2002), and marketing of cosmetic products for enhancing male appearance (Aubrey, 2006).

Preoccupation with enhancing musculature has been coined the "drive for muscularity" (McCreary & Sasse, 2000), and has been linked specifically to media imagery (Labre, 2002; Vartanian et al., 2001). Controlled presentation of muscular stimuli in brief exposures to male experimental participants has been found to produce body dissatisfaction, and even increased depression (Agliata & Tantleff-Dunn, 2004; though see Johnson, McCreary, & Miles, 2007, for a counter-example).

The present study sought to examine the influence on body dissatisfaction and drive for muscularity of a relatively new genre of media, variously described as "men's lifestyle magazines", "lad magazines", or more broadly, "lad media" (Aubrey, 2006). In the UK, titles such as *Loaded*, *FHM*, and *Esquire* were launched in the early 1990s, and by the end of the decade, similar titles (such as *Maxim* and *Stuff*) had appeared in the American market. These magazines are aimed at younger male readers than traditional men's magazines such as *GQ* and *Arena*, and have a more explicit coverage of sexual themes, leading Wal-Mart to ban their sale in 2003 (Taylor, 2005).

Lad media in general have been associated with higher body surveillance, and this is in turn associated with the internalization of sociocultural attitudes towards appearance (Aubrey, 2006). It was therefore hypothesized in the present study that the use of, or exposure to, lad magazines would be associated with higher drive for muscularity, and that this association would be mediated by the internalization of sociocultural attitudes towards appearance.

Two notable features of lad magazines are their focus on the importance of heterosexual success for men, and their derogation of body types that diversify from the muscular ideal (Aubrey, 2006; Taylor, 2005). A recent study found that perceived muscular inadequacy was associated with lack of sexual activity in adult males (Filiaut, 2007). Following from this, an exploratory goal of the present study was to consider the role that dating relationships might play in moderating the association between lad magazines and drive for muscularity.

2. Method

2.1. Participants and procedure

Participants were 161 males between the ages of 18 and 36, with a mean age of 22.17 (SD = 3.45), who were asked to indicate, following criteria defined by Sheets and Ajmere

(2005), whether their current romantic relationship status was "exclusive" (n = 71), "casual" (n = 28), or whether they were "not-dating" (n = 62). In order to maximize statistical power, it was decided to combine 'casual' and 'exclusive' dating participants into one group for analytic purposes.

2.2. Measures

2.2.1. Lad magazine exposure

A magazine exposure scale (MES) was developed for this study loosely based on a similar measure employed by Morry and Staska (2001). Respondents were asked to indicate, on a six-point scale from five (always) to 0 (never), how frequently they read each of these titles (*FHM*, *Nuts*, *Maxim*, *GQ*, *Esquire*, *Zoo*, *Loaded*, *Bizarre* and *Stuff*).

2.2.2. Sociocultural attitudes towards appearance

This was measured by the 21-item Sociocultural Attitudes Towards Appearance Questionnaire – Revised: Male Version (SATAQ-M) (Heinberg, Thompson, & Stormer 1995). The SATAQ consists of two subscales: Internalization, which measures the degree to which respondents have personally internalised the prevalent attitudes of the media towards thin (female) or muscular (male) body shapes; and Awareness, which measures their acceptance of these standards as generalised social norms. Both subscales showed good reliability ($\alpha = .92$ for Internalization and .87 for Awareness).

2.2.3. Drive for muscularity

This was measured using the 15-item Drive for Muscularity Scale (DMS) of McCreary and Sasse (2000). Recent literature by the scale authors (McCreary, Sasse, Saucier, & Dorsch, 2004) has identified a two-factor structure – attitudinal and behavioural – for male respondents, and this was replicated in the present sample. The resulting subscales were subsequently entered into the analysis and are henceforth referred to as attitude (DMS-A) and behaviour (DMS-B). Reliabilities for both subscales were found to be good (respective $\alpha = .90$ and .89).

3. Results

3.1. Relationships between study measures

The correlations between the study measures for the whole sample are displayed in Table 1. Age is included in the table because it was shown to differentiate the three dating status groups; it showed only small, mostly negative, though nonsignificant correlations with the study measures. All other relationships in the table were positive, and all but one reached significance at p < .05.

3.2. Mediation analyses

A series of regression analyses was conducted in order to test the hypothesis that Internalization (of sociocultural attitudes to appearance) mediates the relationships between magazine exposure

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Table 1Correlations among study measures

	Internalization	Awareness	Lad magazines	Attitude	Behaviour
Internalization		.58**	.31**	.54**	.51**
Awareness			.09	.47**	.42**
Lad magazines				$.17^{*}$.37**
Attitude					.55**

* *p* < .05.

** p < .01.

and drive for muscularity, and between magazine exposure and eating disturbance. A summary of the relevant statistical values is displayed in Table 2. Baron and Kenny (1986) procedure for mediation analysis was followed, in which the following three conditions need to be met: (1) The predictor variable (media exposure) should significantly predict both the outcome and the mediator (Internalization); (2) The path from mediator to outcome needs to be significant when controlling for the predictor; and (3) The path from predictor to outcome variable needs to be significantly reduced when controlling for the mediator.

3.2.1. Drive for muscularity (Attitude) as outcome measure

Media exposure was found to significantly predict Attitude (r = .17, p = .04) and Internalization (r = .31, p < .001). A multiple regression analysis was conducted using Attitude as the outcome measure, and with media exposure and Internalization entered simultaneously as predictors. The overall regression equation was significant, adjusted $R^2 = .28$, p < .001, and the path from Internalization to Attitude was significant, $\beta = .54$, p < .001. The inclusion of Internal-

Table 2

Correlations, partial correlations, and significance values for mediation variables

РАТН	Unstandardized regression coefficient (<i>B</i>)	Standard error (S_B)	Standardized regression coefficient (β)	t
Predictor-Mediator		(2)		
MES-Internalization	.30	.07	.31	4.15**
Mediator-Outcome				
Intern-DSM-A	.46	.06	.54	8.04**
Intern-DSM-B	.39	.05	.51	7.39**
Predictor-Outcome				
MES-DSM-A	.14	.06	.17	2.13^{*}
MES-DSM-A (partial)	<.01	.06	<.01	0.03
MES-DSM-B	.28	.06	.37	5.00**
MES-DSM-B (partial)	.18	.05	.23	3.34**

Figures in bold represent significantly reduced predictor-outcome paths (p < .001) from the mediation analyses. Key: DSM-A = Drive for Muscularity (Attitude); DSM-B = Drive for Muscularity (Behaviour); MES = Magazine exposure scale.

** p < .01.

^{*} *p* < .05.

ization in the model reduced the path from media exposure to Attitude to nonsignificance $(\beta_1 = .17, p = .04; \beta_2 = .002, p = .98)$. Therefore it can be said that Internalization fully mediates the relationship between lad magazine exposure and drive for muscularity (Attitude).

3.2.2. Drive for muscularity (behaviour) as the outcome measure

Media exposure was found to significantly predict Behaviour (r = .37, p < .001) and Internalization and media exposure (r = .31, p < .001). A multiple regression analysis was conducted using Behaviour as the outcome measure and with media exposure and Internalization entered simultaneously as predictors. The overall regression equation was significant, adjusted $R^2 = .30$, p < .001, and the path from Internalization to Behaviour was significant, $\beta = .43$, p < .001. The inclusion of Internalization in the model reduced the path from media exposure to Behaviour from $\beta_1 = .37$, p < .001 to $\beta_2 = .23$, p = .002. This reduction was found to be significant using Sobel (1982) equation, Z = 3.63, p < .001, so it can be said that Internalization partially mediates the relationship between lad magazine exposure and drive for muscularity (Behaviour).

3.3. Relationship between dating status and other measures

The hypothesis that dating status would moderate the relationships between lad magazine exposure and drive for muscularity, and between lad magazine exposure and eating disturbance, was tested by running correlation analyses for dating and non-dating participants, respectively.

For non-daters (n = 62), the correlation between media exposure and Behaviour was r = .50 (p < .001). For daters (n = 99), the same correlation was considerably weaker, at r = .26 (p = .04). Using Fisher's r to Z transformation, this difference was found to be significant, Z = 1.65, p = .045. A similar pattern was observed for the relationship between media exposure and Attitude, which was stronger for non-daters, r = .21 (p = .11) than for daters, r = .11 (p = .4), though neither statistic reached significance, nor was the difference between the coefficients found to reach significance, Z = .58, p = .3.

4. Discussion

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The main aim of this study was to examine the relationship between exposure to "lad magazines" and the drive for muscularity, along with other variables relating to cognitions about appearance in a sample of young adult males. It also considered the impact of dating status on these variables. It was hypothesized that lad magazine exposure would be associated with high drive for muscularity, and that this association would be mediated by the internalization of sociocultural attitudes to appearance consistent with those prevalent in the media. The data provide some support for this hypothesis. A more tentative study prediction was that the association between lad magazine use and drive for muscularity would be stronger among non-dating males than males reportedly in various types of dating relationships, and this was found to be the case.

A major omission from the present study is information on sexual orientation, although the measures used were not gender-specific, and there is no specific reason to anticipate differences on any of the measures between homosexual and heterosexual men (see Duggan & McCreary, 2004).

Our data are broadly in line with research which has explored the relationship between media and muscle dissatisfaction, where scores on the SATAQ-M have generally correlated with the other measures (Agliata & Tantleff-Dunn, 2004; Tiggemann, 2005). The inclusion of Internalization as a mediating variable was found to significantly reduce the lad magazine-drive for muscularity path. However this path was notably stronger for the Behavioural subscale of DSM than for the Attitude subscale in the first instance. One possible explanation for this finding is that, given the limitations of cross-sectional, correlational research designs, we are simply describing a common expression of interest in body-oriented, masculine ideal activities.

A novel feature of the present study involved examining the media-male health behaviour relationship with regard to dating relationship status. Although the study lacked sufficient statistical power to fully test the moderating influence of dating status, comparison of the correlation matrices for dating and non-dating participants indicated that, as predicted, the association between lad magazine exposure and drive for muscularity was significantly stronger among non-daters. This would suggest that, although a general pattern of association is present for all the males in the sample, non-dating men are more likely to be affected by lad magazines than men in stable romantic relationships.

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