

# How Healthy are Health Magazines? A Comparative Content Analysis of Cover Captions and Images of *Women's* and *Men's Health* Magazine

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Published online: 12 March 2015  
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**Abstract** The current study investigated how “health” messages are marketed to men and women on the newsstand covers of two magazines published under the same brand name and by the same company in the United States (Rodale, Incorporated). Fifty-four covers of *Men's Health* and *Women's Health* magazine, published between 2006 and 2011, were content analyzed. All captions were coded for message theme, and prominent captions (the caption that covered the greatest amount of surface area on the page) were categorized for type of frame used. The number of objectifying phrases (phrases emphasizing the human body as an object for observation rather than a body with capabilities) used within prominent captions on covers was quantified. Cover portrait images were also assessed for whether models were partially or fully clothed. Findings demonstrated that *Men's* and *Women's Health* were equally likely to display objectifying statements on their covers, but *Women's Health* covers promoted more feminine beauty/thin-ideal messages than *Men's Health* covers; whereas *Men's Health* covers promoted muscularity more than *Women's Health* covers. None of the prominent captions were categorized as reflecting health-related frames for either magazine type. Overall, cover captions fit traditional gender-role stereotypes. Implications are discussed.

**Keywords** Self-objectification · Gender-role stereotypes · Media framing · Health magazines

## Introduction

The current study examined whether magazine messages promoting health vary as a function of gender and gender-role expectations. Despite previous research supporting the notion that men and women are pressured by popular print media to embody different appearance-based realities (Andersen and DiDomenico 1992; Grieve and Bonneau-Kaya (2007); Morry and Staska 2001), most studies have focused on magazines that include an array of topical emphases, inherently confounding type of magazine and the nature of the advertised messages. No studies to date have conducted a direct comparison of men's and women's magazines with the purported similar aim of improving health, specifically. Such an assessment allows for the determination of whether traditional gendered messages related to appearance are imbedded in health and well-being recommendations made by the same publisher.

Emphasis on fitness and health in the United States has increased in recent years. According to the U.S. Department of Labor Bureau of Labor Statistics (2014), employment of fitness trainers and instructors is expected to grow by 13 % from 2012 to 2020, particularly as organizations provide incentives for more healthful living among their employees. Indeed, this health-focused boom can be demonstrated in the economic upturn of the fitness industry. For example, *IBISWorld* reported an increase in gym memberships from 46.4 million in 2003 to more than 52.6 million by 2013 (*IBISWorld* 2013, paragraph 1).

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Mainstream media reflects this trend in fitness interest. Popular consumer magazines that target health and fitness goals have been successful from a marketing angle. In 2013, *Prevention* magazine was ranked 10th in United States circulation (Alliance for Audited Media [AAM], 2013).

Unlike sales to consumers who purchase a magazine by subscription, single copy sales must entice consumers at various newsstands or other retail displays. Magazine publishers are careful to display caption messages and utilize attractive cover models that will successfully lure consumers to make a purchase (e.g., Conlin and Bissell 2014). Indeed, advertisers and publishing companies understand that they must captivate an audience of casually passing consumers with some self-relevant message or desirable image (Lambiase 2007; Sumner and Rhoades 2006). As such, the cover of the magazine is a critical component of the magazine sale.

It is not surprising that magazine marketers would incorporate and promote messages that differ for men and women given prescriptive norms for beauty. For women, youth and thinness are valued and define feminine beauty (i.e., the thin ideal; Malkin et al. 1999; Roberts and Gettman 2004). Evans (2003) argued that women often pair the belief that thinness coincides with other successful life outcomes, and ultimately, happiness. The desire to achieve thinness can be evidenced by the fact that in a sample of girls as young as ages 5–8, approximately 40 % reported desiring a thinner body and anticipated using some form of dietary restriction if they were to gain weight (Dohnt and Tiggemann 2006).

Consistent with these stereotyped beauty values, women's magazines have been shown to focus more on appearance than men's magazines. Malkin et al. (1999) found that 78 % of women's popular magazine covers (as determined by Simmon's Study of Media and Markets based on gender and age) included messages about bodily appearance, whereas men's magazine covers did not include any messages about bodily appearance. When women's fashion magazines have been compared to those alleged to focus on fitness and health, cover models have been similarly portrayed with regard to thinness, with the latter packaging health advice through the lens of the thin ideal (Conlin and Bissell 2014). Furthermore, women's magazines were found to commonly portray messages that promote altering one's appearance as well as ways to improve one's love life and relationships, and ultimately, life in general (Malkin et al. 1999). Ironically, Dohnt and Tiggemann (2006) found that young girls' weight dissatisfaction was heightened with exposure to magazines marketed to adult women – suggesting that these beliefs form early in life.

Thin, young women are commonly depicted on the covers of both men's and women's magazines (Malkin et al. 1999). Indeed, Malkin et al. found that thin women were present 94 % of the time on women's magazines and 50 % of the time on men's magazines. This suggests that female beauty “sells” both male and female magazines. Indeed, the authors state that

popular magazines “portray what women should look like and what men should look for [in women]” (p. 652). Moreover, this was the case across a wide comparison of magazine types including: Women's traditional magazines (*Better Homes and Gardens*, *Family Circle*, *Good Housekeeping*, *Ladies' Home Journal*, *McCall's*, *Redbook*, and *Women's Day*); women's fashion magazines (*Cosmopolitan*, *Glamour*, *Seventeen*, and *Vogue*); women's modern magazines (*Ms.*); men's traditional magazines (*Life*, *National Geographic*, and *Newsweek*); men's fashion magazines (*Esquire* and *Gentlemen's Quarterly*); and men's entertainment magazines (*Field and Stream*, *Jet*, *Rolling Stone*, and *Sports Illustrated*; Malkin et al. 1999). It is not surprising that the consistent pairing of thin and young beauty ideals with perceived desirability for men heightens women's perceptions that men prefer a thinner beauty ideal than men actually report (Fallon and Rozin 1985).

Concurrently, some female media images elicit objectifying situations by portraying women as bodies to be observed and used for pleasure, instead of bodies with capabilities (Fredrickson and Roberts 1997). These portrayals focus on specific parts of the female body, and even include instances of dismemberment where the head is completely left out of the picture. This type of portrayal is accompanied by what Fredrickson and Roberts call an “objectifying gaze,” to which women can be subjected or even witness (as experienced by other women) in various situations. In addition to an objectifying gaze, these situations may also include actual encounters in the form of heckling from other individuals (often men).

Women are often faced with the thin-is-ideal beauty standard, as well as an emphasis on sexual appeal to a greater extent than men (Fredrickson and Roberts 1997). The media, for example, has been heavily criticized for being a top advocate of “ideal” body standards for women (Martin Ginis et al. 2008; Strahan et al. 2008). Women are continuously portrayed as being exceptionally thin and fit, implying that this is the ideal standard for female beauty when it is unattainable for most women. The media also portrays women in a sexual manner more often than men (Fredrickson and Roberts 1997).

By contrast, beauty ideals for men revolve more around strength and muscularity than thinness (Daniel and Bridges 2010; Frederick et al. 2005; Labre 2005; Parent and Moradi 2011; Roberts and Gettman 2004; Spitzer et al. 1999). Albeit women's magazines' focus on diet, exercise, and overall appearance, while men's magazines' focus on entertainment and gaining knowledge, men still receive gendered-body-ideal messages from the media (Malkin et al. 1999). Specifically, men increasingly receive pressure to gain muscle mass, and are often depicted in advertisements as “strong and muscular” (Kolbe and Albanese 1996, p. 17). In a content analysis of female (*Cosmopolitan*) versus male (*Men's Fitness*, *Men's Health*) targeted magazines, Frederick et al. (2005) found that men were represented as being more muscular in male-

audience magazines than in female-audience magazines. Andersen and DiDomenico (1992) found that popular magazines for men and women prescribe that women slim down by changing their body weight and that men bulk up by changing their body shape. Indeed, they found a 10:1 ratio of dieting ads in their gender-based comparison for dieting ads in women's versus men's magazines.

Grieve and Bonneau-Kaya (2007) performed a 15-year follow-up to Andersen and DiDomenico (1992) in order to assess whether media pressure for men to achieve societally-prescribed appearance norms had increased during this time. They found a disparity between magazine types such that men's magazines had a higher percentage of articles and advertisements emphasizing weight gain, whereas women's magazines had more informational elements prescribing weight loss.

Of course, in the case of single copy magazine sales, the consumer is likely to have already purchased the magazine before perusing the advertisements within the magazine, or at least to have been interested enough to consider a purchase. By their nature, the cover model images and captions are likely to be sensationalized (e.g., Lambiase 2007), particularly for maximum impact in minimal time to promote sales (Malkin et al. 1999). Advertisers intentionally frame messages to seize consumers' attention (Conlin and Bissell 2014). According to Framing Theory (Scheufele 1999), a frame is essentially a central idea or focus of a message that is particularly salient, provides meaning to the message, and constructs an aspect of social reality for a consumer. Media frame building occurs when those who work in the media use framing to organize and give meaning to an event or story. Someone working to create magazine covers for a health and fitness magazine may use a frame, such as an appearance frame, to emphasize a particular meaning in a health advice caption. For example, if an individual were to read the health advice caption "A Beach Ready Body" (*Women's Health*, July/August 2006), the appearance message would be made salient to the individual, and would therefore, appear to be an important aspect of the health advice. As a result, framing affects the individual and can influence behavior (e.g., buying the magazine touting the caption), attitude (e.g., internalizing the message that appearance is important), and cognition (e.g., seeing oneself in a more self-objectified way – i.e., as an object; Scheufele 1999).

Aubrey (2010) conducted a content analysis of 55 covers of women's health and fitness magazines published from 2003 to 2008 (*Shape*, *Self*, *Fitness*, *Health*, and *Women's Health*). She assessed how health advice in magazine cover headlines was being framed, or presented in a way that depicted a particular underlying meaning or motivation. Aubrey coded the frequency of objectifying phrases (mentioning a desirable body or body part) and the frames used in each cover's captions. The frames included the appearance frame (information about how

to improve looks), the body competence frame (information about how to improve the body's function), the health frame (general information about how to improve health), the weight loss frame, and one frame described as other/miscellaneous (Aubrey 2010).

Aubrey (2010) showed that women's health magazines often promote appearance ideals just as strongly as health-related messages. This is significant because it may reinforce the idea that women need to have healthy habits so that they can meet the cultural body ideal instead of just maintaining healthy habits in order to be healthier, function better, and/or live longer (Aubrey 2010). In other words, health and appearance may become confounded outcomes. In addition, it was shown that the dominant headline (i.e., the largest caption on the magazine) contained objectifying statements 40 % of the time (Aubrey 2010). This is potentially problematic because these are the most noticeable captions on the magazine, and therefore the most likely to be seen and internalized. Given that these statements generally dissect bodies down to sub-parts (e.g., "Knockout legs," and "Rock Solid Abs," p. 51) and are appearance-focused, the outcome of self-objectification for women seems likely (Fredrickson and Roberts 1997).

Men face similar appearance-based messages in fitness magazines (Morry and Staska 2001). Labre (2005) conducted a content analysis of the advertisements and articles of *Men's Health* and *Men's Fitness* magazines. Raters coded the advertisements for the level of fat and muscularity seen in the models, the type of product being advertised, and the main benefit of the featured product in each advertisement. It was shown that 96 % of images presented in men's fitness magazines were low in body fat and 82 % of the images were high in muscularity as assessed by raters using The Male Scale (Labre 2005), suggesting a possibly unattainable body ideal of muscularity for men (Daniel and Bridges 2010; Frederick et al. 2005; Labre 2005; Parent and Moradi 2011; Roberts and Gettman 2004). In addition, the advertisements and articles in the men's health and fitness magazines were more likely to focus on appearance rather than fitness or physical performance. These types of messages could also lead to the use of unhealthy methods to achieve this body ideal (e.g., disordered eating, the use of Anabolic-Androgenic Steroids, and the use of performance-enhancing supplements) instead of focusing on ways to be healthier (Labre 2005).

Fitness and health magazines are a specialized form of media in that they allegedly promote both outcomes, while peripherally invoking appearance concerns (Conlin and Bissell 2014; Labre 2005). As seen in previous studies, women's fitness magazines promote appearance ideals just as often as health ideals (Aubrey 2010). Men's popular magazines have traditionally focused on the acquisition of desirable lifestyles; but over time, they have experienced increasing pressure to achieve a muscular physique and to lose

weight (Andersen and DiDomenico 1992). The present study is extending that research to men's fitness/health magazines and conducting a comparison of two identically targeted products. Although comparisons of men's and women's magazines have been conducted independently (e.g., Labre 2005, examined *Men's Health* and *Men's Fitness*; Aubrey 2010, examined *Women's Health*, *Shape*, *Self*, *Fitness*, *Health*, and *Women's Health*; Conlin and Bissell 2014, compared *Cosmopolitan*, *Glamour*, and *Marie Claire* to *Shape*, *Fitness*, and *Women's Health*), to our knowledge, a direct comparison of messages touted on the cover of two magazines produced by the same company and targeting the same lifestyle goal (health) between genders has *not* been conducted. While Grieve and Bonneau-Kaya (2007) explicitly stated that magazines were eliminated "if they were geared specifically toward topics of weight, health, and fitness" (p. 99), we focus specifically on health magazines in order to determine whether gender-role content becomes embedded in this type of magazine.

Furthermore, the magazines examined in the current study are sibling publications that are published by the same company (Rodale, Inc.). Both are derived from the same product line, and touted as mechanisms that can promote positive change for individuals for "healthy lifestyles" (Rodale 2014, paragraph 1). Both have been popularly received by consumers. *Men's Health* magazine ranked 35th in circulation for the first half of 2013. When *Women's Health* magazine was launched in 2005 as its sister publication, it held a base of 400,000, but grew to 850,000 by the July/August 2007 issue (Rodale 2007, paragraph 1). Given this shared focus and accessibility, we believed the two magazines would serve as an interesting platform against which to compare how such recommendations for "improving lives" (Rodale 2014, paragraph 1) might be influenced by gender roles. A demonstration of how health and wellness are marketed to men and women would be an important contribution to the current sociocultural understanding of gender roles.

In this study, the prominent caption (largest proportionate cover message), secondary captions, and cover images of *Men's Health* and *Women's Health* magazines were compared. Predictions were as follows:

#### Appearance and Thin Ideal Emphasis

Previous research has shown that beauty and appearance are scrutinized to a greater extent in women than men (e.g., Ogletree et al. 1990), that women are valued for youthfulness and thinness (e.g., Harper and Tiggemann 2008), and that thinness is integral to the concept of female beauty but not ideal masculine beauty (e.g., Oehlhof et al. 2009). Utilizing a Poisson regression analysis of caption frequencies across magazine types, Hypothesis 1a predicted that across all captions those targeting appearance in general, exercising for appearance reasons, dieting, and weight loss would be more

likely to appear in *Women's Health* magazine relative to *Men's Health* magazine. (As will be discussed later, no prediction was made for themes promoting exercising in general.)

Similarly, women's pressure to maintain thinness and youthfulness ultimately relates to the goal of looking beautiful. Emphasis on feminine beauty was expected to emerge in the frames used for prominent captions on covers. Thus, Hypothesis 1b posited that for prominent cover captions, a Chi-square analysis would show that the appearance frame would be the most common frame on *Women's Health* magazine relative to other frames.

#### Muscularity and Masculine Beauty

By contrast, men have increasingly received messages that promote muscularity for their physique in order to acquire greater strength (Andersen and DiDomenico 1992; Grieve and Bonneau-Kaya 2007). Messages aimed at men encourage the gain of muscle mass, and link this to masculinity (e.g., Labre 2005). Given this emphasis on the acquisition of strength and power, Hypothesis 2 postulated that prominent captions framed as body competence (emphasizing improved body functionality and fitness) were anticipated to occur more frequently on the covers of *Men's Health* than *Women's Health* (based on Chi-square analysis).

#### Self-Objectifying Phrases and Images

Women face greater compartmentalization than men with regard to the nature of media's depictions of female bodies such that their bodies are often depicted as *parts* upon which to gaze, with an emphasis on sexual provocativeness (Fredrickson and Roberts 1997). As such, we expected more examples of self-objectification in *Women's Health* than *Men's Health* by way of both images and captions. Hypothesis 3a posited that for photographic images, it was expected that the cover models on *Women's Health* would be portrayed partially clothed (e.g., wearing a bikini top for women or being shirtless for men) more often than the cover models on *Men's Health* (based on Chi-square analysis).

Aubrey (2010) found that in women's health magazines self-objectification was observed in 40 % of the prominent captions via the presence of phrases that specifically named a body part to be gained, or undesirable body part to be reduced on their covers. In the current study, we chose to compare objectification in prominent captions as well. Using Poisson regression analysis with objectifying body parts examined across magazine type, Hypothesis 3b expected that *Women's Health* would include a greater number of objectifying phrases than *Men's Health*. However, this expectation was qualified by phrases that specifically related to gender-role beauty norms. *Women's Health* was expected to promote objectifying phrases that highlight feminine beauty and the thin-

beauty ideal (e.g., words such as “tush” or tummy; Hypothesis 4a), while *Men’s Health* was predicted to contain more phrases that addressed body parts related to gaining muscle (e.g., words such as “pecs” or biceps; Hypothesis 4b).

Below is a summary of Hypotheses:

- H1a: *Women’s Health* magazine would display more captions (both prominent and secondary) related to appearance in general, exercising for appearance reasons, dieting, and weight loss than *Men’s Health* magazine, as tested using Poisson regression analysis.
- H1b: For prominent cover captions, the appearance frame would be the most common frame on *Women’s Health* magazine relative to other frames, as tested using Chi-square analysis.
- H2: Prominent captions framed as related to body competence were anticipated to occur more frequently on the covers of *Men’s Health* relative to other frames, as tested using Chi-square analysis.
- H3a: Cover models on *Women’s Health* would be portrayed partially clothed more often than cover models on *Men’s Health*, as tested using Chi-square analysis.
- H3b: A greater number of phrases specifying body parts (objectifying phrases) would be displayed in the prominent captions on the cover of *Women’s Health* relative to *Men’s Health*, as tested using Poisson regression analysis.
- H4a and 4b: *Women’s Health* would display a greater number of phrases emphasizing the thin beauty ideal for femininity whereas *Men’s Health* would display a greater number of phrases emphasizing muscle gain within prominent captions, as tested using Poisson regression analysis.

## Method

### Magazine Selection

Newsstand covers of *Men’s Health* and *Women’s Health* from years 2006–2011 were coded (the data set did not include the January/February issues because they were used for coder training). This study used the newsstand covers as opposed to the different subscription covers because newsstand covers may prompt more sales by consumers in incidental circumstances, such as passersby in a grocery store (e.g., Sumner and Rhoades 2006). *Men’s Health* and *Women’s Health* were used because they are published by the same company, Rodale, Incorporated, and for the ability to make gendered comparisons where content was held constant. Although *Women’s Health* was created as a sister publication in 2005 to *Men’s Health* (created in 1987), circulation data published by the

Audit Bureau of Circulations (AAM 2013) place both magazines in the top-100 magazines in the United States for 2013 (1,884,156 for *Men’s Health* and 1,574,269 for *Women’s Health*). In total, 54 *Men’s Health* and 54 *Women’s Health* covers were coded. The number of issues coded for each magazine and the months in which they were published are presented in Table 1. These covers were obtained from the publishing company through email correspondence. Institutional Review Board Approval was obtained and all procedures adhered to the principles specified by the American Psychological Association (2010).

### Coding

Three female raters (two graduate students, one undergraduate) coded the information based on the photographic cover model images and *all* cover captions. Coding guidelines were modeled after those outlined by Aubrey (2010). One of the three raters was trained on the 2005 covers, which were subsequently not used in the data set. The remaining two coders were trained using the January/February issue of each year. These covers were also not used as part of the final data set. All captions were coded and placed into one of the following categories: appearance (captions referencing one’s personal appearance: *Awesome abs, Look thinner instantly*), dieting (phrases involving restriction of food consumption, calorie counting or eating for weight loss: *Diet to lose fat in just 10 days, Foods that burn fat*), weight-loss (captions emphasizing losing fat or weight: *Special lose your gut issue, Lose that belly fat in no time*), general exercise with no other information specified (captions containing action verbs or emphasizing physical activity: *Get back in shape, Speed! Power! Strength!*), and exercising for appearance reasons (phrases emphasizing participation in physical activity as a means of improving personal appearance: *Firm your belly, Get ripped*). See Table 2 for exemplars of coded categories and captions;

**Table 1** Dates and number of coded issues for *Men’s* and *Women’s Health* [that were published from 2006 to 2011]

Issue	<i>Men’s Health</i>	<i>Women’s Health</i>
January/ February	0	0
March	6	6
April	6	6
May	6	6
June	6	6
July/ August	6	6
September	6	6
October	6	6
November	6	6
December	6	6
Total	54	54

**Table 2** Examples of coding captions on the covers of *Men's Health* and *Women's Health*

Category	Caption	Issue
Exercise or physical activity	“Maximize your workout”	( <i>Women's Health</i> , April 2006)
	“Your fittest body ever – in 4 weeks!”	( <i>Men's Health</i> , December 2011)
Exercising for appearance	“Sculpt hot curves”	( <i>Women's Health</i> , April 2011)
	“Build arms like these!”	( <i>Men's Health</i> , May 2011)
Dieting	“Conquer your cravings”	( <i>Women's Health</i> , December 2007)
	“15 flat-belly power foods”	( <i>Men's Health</i> , November 2008)
Weight loss	“Lose more weight!”	( <i>Women's Health</i> , March 2008)
	“New fast-track fat-loss plan”	( <i>Men's Health</i> , March 2010)
Appearance	“447 ways to look great – instantly!”	( <i>Women's Health</i> , March 2008)
	“Look your best ever!”	( <i>Men's Health</i> , May 2006)

more specific coding guidelines are available upon request to the first author.

Two female coders were involved in coding *prominent* caption frames and objectifying phrases (body parts mentioned tally). Both coders trained on the 2005 covers from *Women's Health* and *Men's Health* magazines. As a result, 2005 covers were not included in the data set. Again, in all cases, coding occurred individually. Once the covers were coded, raters met to compare results and resolve any discrepancies that were present. In most cases, coders were able to talk through discrepancies and come to a consensus. However, if a discrepancy could not be resolved, the first author made the final decision.

The guidelines for identifying prominent captions and coding the objectifying phrases (body parts mentioned) for secondary captions were partially taken from the coding guidelines used by Aubrey (2010). The prominent caption (called the dominant caption in Aubrey 2010) was defined as the caption with the largest font on a magazine cover. This only included the words in the largest font, not the words in smaller font that accompanied the prominent caption. The only exception to this rule occurred if the message displayed in the largest font did not make sense as a stand-alone caption without the smaller words. For example, on the cover of *Women's Health*, January/February 2007, *Your fittest year* was the most prominent caption. The word “year” held the largest font on the page, but the words “your” and “fittest” had to be included for the phrase to make sense within context. If there were two captions of equally large font on a single cover, the caption that took up the most surface area on the cover was coded as the prominent caption.

The frame that best described the prominent caption was then coded based on Aubrey's (2010) categories. The frames included appearance, body competence, health, weight loss, and other/miscellaneous frames. Appearance frames included any captions that involved how the body looks or how to improve the body's looks (e.g., *flat sexy abs*, *a beach ready body*, *hot abs*). Body competence frames included any captions that involved the body's functional qualities, such as

fitness and strength (e.g., *Your fittest year now*, *Get back in shape*). Health frames included any captions related to health or how to improve health (no examples emerged in prominent captions to illustrate). Weight loss frames included any captions about weight loss or how to lose weight (e.g., *Drop two sizes*). Other/miscellaneous frames included any caption that did not fit into any of the other frames. If a caption could fit into two frames it was not split. Instead, it was placed into the frame that came first within the caption (e.g., “*Strong and Sexy!*” would be placed into body competence because strong came before sexy). The prominent captions from two *Women's Health* covers were considered to be hybrid captions. As a whole, these captions fit equally well into two separate frames. These two captions were omitted from this analysis.

Objectifying phrases are statements that reduce a person to a body or a body part (Aubrey 2010). Therefore, these phrases were coded as a body part mentioned in a caption. If any body parts were mentioned in any of the captions on the cover of a magazine, they were counted and coded for the number of times they were mentioned (body parts included abs, gut, belly, body, arms, pecs, thighs, legs, stomach, face, butt, chest, back, biceps, breast(s), tummy, tush, muffin top, muscles, and head). Each body part mentioned as a unique word represented an objectifying phrase that was present for the prominent caption on that cover. Reliabilities for objectifying phrases were kappa = .86 and .87, *Men's* and *Women's Health* respectively.

Cover models were assessed for whether they were partially or fully clothed. If a female displayed a bare midriff and/or a swimsuit and if a male showed a bare chest, the model was deemed “partially clothed.” Otherwise the model was deemed “fully clothed.”

#### Reliability

After coding all of the information, we calculated free-marginal multi-rater *kappas* (see Randolph 2005; Warrens 2010) using The Online Kappa Calculator (Randolph 2008) to assess inter-rater reliability. The *kappas* for each coding

category, in addition to the number of agreements and total captions for each category, are located in Table 3. Total coder agreement across all categories for *Women's Health* magazine covers was 97.82 and 98.53 % for *Men's Health*. The number of captions and the percentage of captions in each coding category are presented in Table 4.

**Results**

**Hypotheses Related to Appearance and Thinness Ideal**

In order to assess Hypothesis 1a — that the frequency of caption themes (appearance, exercising for appearance reasons, dieting, and weight loss) would vary across magazine types, we modeled the data using a Poisson distribution. Examining differences in the number of certain captions (e.g., appearance captions) involves analyzing counts data. We used Poisson regression analysis to account for the fact that counts are not normally distributed and are made over different observations (e.g., counting 10 appearance captions out of 10 observed captions is not the same as counting 10 appearance captions out of 50 observed captions). The Poisson distribution models the probability of a caption's occurrence on a magazine cover based on the total number of observations and thus, indicates whether this probability changes due to the type of magazine (see Rodriguez 2007). The results of the Poisson regression analysis are presented in Table 5. As predicted, captions that emphasized appearance,

**Table 3** Free-marginal multi-rater kappa reliability coefficients, number of agreements, total number of captions, and percent agreement for coding categories

	K	Agreements	Total	Percent
<b>Caption category</b>				
Appearance	.93	298	329	91
General exercise	.93	170	189	90
Exercise for appearance	.93	71	79	90
Dieting	.79	44	62	71
Weight loss	.86	74	91	81.3
<b>Prominent caption frames</b>				
Appearance	.73	42	46	91.3
Body competence	.85	15	17	88.2
Health	–	–	0	–
Weight loss	1.00	41	41	100
Other/ Misc.	1.00	2	2	100
<b>Self-objectification</b>				
Amount of clothing	.99	107	108	99.1
Feminine beauty phrases	.91	42	44	95.5
Muscularity phrases	.93	131	135	97.1

\*Two coders were used for prominent captions

**Table 4** Frequencies and percentages of captions in each coding category on cover of *Women's Health* (WH) and *Men's Health* (MH)

Coding category	WH (%)	MH (%)	Total (%)
Appearance	202 (25.7)	127 (15.9)	329 (20.8)
Dieting	41 (5.2)	21 (2.6)	62 (3.9)
Weight loss	56 (7.1)	35 (4.4)	91 (5.8)
Exercising for appearance reasons	49 (6.2)	30 (3.8)	79 (5.0)
General exercising	55 (7.0)	134 (16.8)	189 (11.9)

\*The percentages in this table were calculated based on the total number of captions that were coded for *Women's Health* (n=787), *Men's Health* (n=797), and the total number of captions coded overall (n=1,584)

exercising for appearance reasons, dieting, and weight loss appeared more often on the covers of *Women's Health* than *Men's Health* (see Table 5). Caption themes varied significantly by magazine type such that *Women's Health* was 1.59 times more likely to use appearance phrases, 1.63 times more likely to tout exercising for appearance reasons, 1.95 times more likely to use dieting phrases, and 1.60 times more likely to use weight loss phrases than *Men's Health*.

Unexpectedly, *Men's Health* emphasized general exercising to greater extent than did *Women's Health*. As shown in Table 5, *Men's Health* was 2.43 times more likely to display these messages relative to *Women's Health*.

To test Hypothesis 1b that the appearance frame would be the most common frame for the prominent captions on *Women's Health* while the body competence frame would be the most common frame for the prominent captions on *Men's Health*, two Chi-Square tests were conducted for each magazine. For *Women's Health*, the Chi-Square test across frames was statistically significant,  $\chi^2(3, N=54)=27.33, p=.0001$ . As Table 6 shows, the most frequent frame was appearance and the second most frequent frame was weight loss. Although not specified by our predictions, we examined whether the frequency of weight loss and appearance frames differed for *Women's Health* covers by conducting a Chi-

**Table 5** Magazine type (*Men's* vs. *Women's Health*) as a predictor of occurrence of caption theme (appearance, dieting, weight loss, exercising for appearance reasons, and general) based on a poisson regression model

Dependent variables	B	$\beta$	$\chi^2(1)$	p	Exp (B)
Appearance phrases	.86	.46	16.80	.000	1.59
Dieting phrases	-.94	.66	6.22	.013	1.95
Weight loss phrases	-.43	.47	4.76	.029	1.60
Exercising for appearance reasons	-.59	.49	4.48	.034	1.63
General exercising phrases	.09	.89	30.92	.000	2.43

Magazine type, *Men's Health*=0; *Women's Health*=1. For ease of interpretation, predictors were entered in descending order for all dependent variables except general exercising phrases

**Table 6** Frequencies and percentages of prominent caption frames on cover of *Women's Health* (WH) and *Men's Health* (MH)

Frame	WH (%)	$\chi^2$	df	p <	MH (%)	$\chi^2$	df	p <
		27.33	3	.001		20.96	3	.001
Appearance	27 (51.92)				19 (35.19)			
Body competence	6 (11.54)				11 (20.37)			
Weight loss	18 (34.62)				23 (42.59)			
Other/Miscellaneous	3 (1.92)				1 (1.85)			
Health	0 (0.00)				0 (0.00)			
Totals	54				54			

Square goodness-of-fit test. The results did not yield a significant effect,  $\chi^2(1, N=45)=1.80, p=.18$ .

A Chi-Square test was also conducted for *Women's Health* to compare the frequency of appearances frames relative to body competence frames because body competence was the third most frequent frame to occur on *Women's Health* covers (See Table 6). A significant difference emerged,  $\chi^2(1, N=33)=13.36, p<.01$ , suggesting that appearance frames were significantly more likely to occur on the cover of *Women's Health* than body competence frames.

#### Hypotheses Related to Muscularity and Masculine Beauty

Despite the fact that for *Men's Health* the Chi-Square test across frames was also statistically significant,  $\chi^2(3, N=54)=20.96, p<.001$ , the pattern of results was counter to Hypothesis 2. As Table 6 shows, the most frequent frame was weight loss, the second most frequent frame was appearance, and the third most frequent frame was body competence. We had expected, instead, that body competence would be the most common frame stated in the captions.

Because the weight loss, appearance, and body competence frames were most common, two Chi-Squares were conducted for *Men's Health* to examine the number of weight loss frames in comparison to the number of appearance frames and body competence frames. The comparison of frequency for weight loss versus appearance frames was not significant,  $\chi^2(1, N=42)=.38, p=.54$ , whereas the comparison of weight loss to body competence was,  $\chi^2(1, N=34)=4.24, p<.05$ .

#### Hypotheses Related to Self-Objectification

To assess body exposure depictions of cover model images (Hypothesis 3a), a 2 (type of magazine: *Women's Health* vs. *Men's Health*) x 2 (amount of clothing: partially clothed versus fully clothed) cross tabulation was conducted. The frequency of cover models depicted as fully clothed or partially clothed for each magazine is shown in Table 7. Consistent with Hypothesis 3a, results yielded a significant interaction between amount of clothing and magazine type,  $\chi^2(1, N=108)=20.78, p<.001$ . As predicted, cover models on

*Women's Health* were more likely to be portrayed partially clothed than cover models on *Men's Health*.

Specific body parts mentioned in the prominent caption on the covers were tallied in order to test Hypothesis 3b that *Women's Health* would contain more objectifying statements than *Men's Health*. Then, similar to Aubrey (2010), we computed a Cross-tabulation Chi Square comparing the number of covers of *Men's* versus *Women's Health* that contained at least one objectifying phrase. We found that every magazine, regardless of type, contained at least one objectifying phrase ( $M=3.17, SD=1.41$  for *Men's Health*, and  $M=3.52, SD=1.68$  for *Women's Health*) ( $p>.05$ ).

Again, a Poisson regression analysis was conducted in order to assess variation in the number of objectifying phrases on the covers of *Men's* and *Women's Health* because the data involved counts that were not normally distributed. Contrary to predictions, we did not find that magazine type predicted the number of objectifying phrases on the cover; *Women's Health* did not promote more objectifying phrases than *Men's Health*. The results of the Poisson regression analysis are presented in Table 8.

Recall, however, that we predicted the magazines would also vary in the nature of these objectifying phrases, with *Women's Health* touting phrases that encouraged the enhancement of thin feminine beauty (Hypothesis 4a) and *Men's Health* touting phrases that encouraged the enhancement of muscularity (Hypothesis 4b). Modeling the occurrences of feminine beauty phrases and muscularity phrases on the Poisson distribution, the regression analysis demonstrated that body-specific phrasing did vary by magazine type (see Table 8). Results demonstrated that the number of feminine

**Table 7** Frequencies, percentages, and chi-square of partially clothed vs. fully clothed characteristics of cover models on *Women's Health* (WH) and *Men's Health* (MH)

Clothing characteristics	WH (%)	MH (%)	$\chi^2$	df	Sig.
Presence of clothing			20.776	1	0.000
Partially clothed	28 (51.85)	6 (11.11)			
Fully clothed	26 (48.15)	48 (88.89)			
Totals	54	54			



**Table 8** Magazine type (Men's vs. women's health) as a predictor of occurrence of objectifying, muscularity, and thin feminine ideal phrases based on a poisson regression model

Frame	Counts	Percent	B	$\beta$	$\chi^2$ (1)	<i>p</i>	Exp (B)
Objectifying phrases			1.15	-.018	.03	.87	1.02
Men's health	170	47.4					
Women's health	189	52.6					
Feminine ideal phrases			-3.99	-3.76	13.83	.001	43.00
Men's health	1	.006					
Women's health	43	22.8					
Muscularity phrases			-.300	.865	21.06	.001	2.37
Men's health	95	55.9					
Women's health	40	21.2					

*N*=108, Objectifying Phrases were defined as any phrase that mentioned a specific body part to be enhanced or to be desired; Feminine Ideal Phrases included the body parts legs, butt, tush, tummy, and breast; Muscularity Phrases included the body parts abs, back, pecs, biceps, chest, and muscles. For Magazine Type, *Men's Health*=0; *Women's Health*=1. For ease of interpretation, predictors were entered in descending order for all dependent variables except muscularity phrases

beauty phrases that occurred on the covers of *Women's Health* was 43 times that of *Men's Health*. By contrast, the number of muscularity phrases that occurred on the covers of *Men's Health* was 2.37 times that of *Women's Health*.

## Discussion

Although comparative studies have been done for men's and women's magazines, none have held type of magazine constant, and few have looked specifically at health related magazines. This content analysis compared captions and cover model images on *Men's Health* and *Women's Health* through the lens of gender-role stereotypes, Objectification Theory, and Framing Theory to assess gender differences. Interestingly, *Women's* and *Men's Health* were more alike than different with regard to caption messages that objectified body parts. Contrary to prediction, *Women's Health* did not promote more objectifying phrases than *Men's Health*, suggesting that men are more objectified by magazines than originally expected. This finding is different from previous gendered comparisons of magazines, such as the one conducted by Malkin et al. (1999), which found no appearance-based messages in men's magazines they had sampled. However, it is important to note that Malkin and colleagues examined men's entertainment and fashion magazines. Men's health and fitness magazines may be a particular venue where men would be expected to

receive appearance-focused advice, along with the recommendations to engage in the requisite activities to achieve a particular appearance (Tiggemann and Williamson 2000). Indeed, one survey of young adults found that males with higher self-objectification scores were more likely to endorse muscularity as the ideal body shape, whereas females with higher scores idealized less muscularity (i.e., were less likely to desire a muscular body) (Oehlhof et al. 2009).

Overall, the similarity in the number of objectifying phrases found on *Men's Health* and *Women's Health* magazine suggests that the use of Objectification Theory to describe men's experiences could be useful to some extent (Daniel and Bridges 2010). This study shows that men do face objectification through some sources in the media, which could translate into negative outcomes, such as the desire to achieve muscularity via unhealthy means (e.g., the use of anabolic-androgenic steroids; Parent and Moradi 2011). A preponderance of media messages that promote the need for muscle gain seems consistent with findings that men tend to overestimate the amount of muscularity that women find attractive (Frederick et al. 2005).

Indeed, the nature of the objectifying phrases embodied in these captions did differ by magazine type. A greater proportion of objectifying prominent captions on the covers of *Men's Health* was related to the muscular body ideal while more objectifying captions in *Women's Health* were related to the feminine thin body ideal. Again, this is consistent with previous research stating that women face pressure to be beautiful and thin and men face a muscular body ideal (Frederick et al. 2005; Spitzer et al. 1999). So, while men and women appear to be facing the same amount of objectification from *Men's Health* and *Women's Health*, the type of objectification that is occurring appears to be very gender-focused. Despite the fact that these magazines are intended to promote a healthy life style – according to Rodale, Inc., one of the company's goals is to promote “ideas, insights, and information that inspire and enable people to improve their lives and the world around them” (Rodale 2014, paragraph 1) – they do so through an arguably narrow lens, encouraging two different stereotypical body ideals. This is problematic because, for many people, a healthy body may not fit the iconic prototype for the “ideal” male or female (Spitzer et al. 1999).

Weight loss and appearance frames were equally likely to be seen as the most frequent prominent caption frames on *Men's Health* and *Women's Health*. Again, this was unexpected, given that previous research found few appearance-based messages in men's magazines relative to messages focused on educating and entertaining their audience (Malkin et al. 1999). In fact, we found that prominent captions on *Men's Health* showed diminished focus on body competence and functioning in favor of physical appearance and losing weight. This presents a conundrum of sorts for men if messages tout both “bulking up” and “slimming down.” Likewise, this emphasis

on appearance and weight loss could encourage men to engage in less healthful approaches to attain a desired body build (Daniel and Bridges 2010; Parent and Moradi 2011; Spitzer et al. 1999). Recall that the promotion of caption themes related to general exercise was found to be more predominant in *Men's Health* than *Women's Health*. Given that exercising can be used as a tool to achieve both thinness and/or muscularity (Marieb and Hoehn 2007), it is unclear how men receive the message to exercise for its own sake without a specification for a target goal (appearance, weight loss, muscle gain, improved health, etc.).

Concurrently, the greater emphasis placed on the physical features women embody as compared to their physical functioning is consistent with the ongoing message received by women that their value rests more prominently in their looks (i.e., they fair better in life if they are attractive) than in their competency (Evans 2003). Heightened focus on physical beauty at the expense of body competence also contributes to a self-objectified perspective of one's body (Fredrickson and Roberts 1997).

It is also possible that the emphasis on weight loss (the most frequent prominent caption for *Men's Health* and the second most frequent prominent caption on *Women's Health* covers) derives from the cultural stigma of obesity in the U.S. that carries social burden for women and men (e.g., see Fee and Nusbaumer 2012). It may be that regardless of gender, weight loss concerns have grown with time. Indeed, when compared to Andersen and DiDomenico's (1992) study over a decade earlier, Grieve and Bonneau-Kaya (2007) found that weight loss articles and advertisements had increased for both men's and women's magazines. Ironically, exposure to media messages that stigmatize obesity have been shown to increase high caloric food intake and reduce the perception of self-control over one's food intake in those who perceived themselves to be obese (Major et al. 2014), suggesting that the framing of messages about weight loss and its circumstances should be approached carefully and thoughtfully.

Interestingly, none of the prominent captions on either magazine fit into a *health* frame. This was surprising and concerning given that *Men's Health* and *Women's Health* are considered health and fitness magazines. Rather, the underlying meanings of their most prominent captions appeared to be focused more specifically on improving men's and women's bodies in order to achieve an appearance consistent with masculine or feminine beauty ideals.

If individuals can develop states of self-objectification just by exposure to objectifying words (Roberts and Gettman 2004), then it seems reasonable to argue that appearance-focused phrasing on magazine covers could impact the self-image of consumers. That is, men and women who simply look at a cover of *Men's Health* or *Women's Health* magazine could face objectification, particularly in light of the compartmentalization of body parts couched within recommendations

for change. Since the prominent caption comprises the largest area on a cover, it is likely that these statements are most visible and influential for the public viewer. Because of this, the prominent caption, and its placement on the magazine, may have more of an impact on viewers than other words found on a cover (e.g., see Sumner and Rhoades 2006). However, this is an empirical question that warrants further investigation.

One might argue that this alleged "health advice" found in the prominent captions was not framed for the purpose of healthfulness (e.g., to eat certain food for well-being), but instead for weight loss and subsequent maintenance of a particular appearance. Furthermore, secondary captions focused on dieting, weight loss, appearance, and exercising for appearance reasons to a greater extent for *Women's Health* than *Men's Health*. Aubrey (2010) argued that dieting and exercise induced through external motivators such as concern over "looks" was likely to lead to more drastic and less healthy measures to attain such goals. Tiggemann and Williamson (2000) found that exercising or dieting in order to look a certain way is associated with lower self-esteem and dissatisfaction with one's body, begging the question of whether the caption frames on the covers of the *Men's Health* and *Women's Health* magazines used in this study could be more detrimental than helpful.

Unfortunately, appearance concerns often trump health concerns, especially for young adults. For example, psycho-educational interventions aimed at reducing the incidence of sun and indoor tanning have shown that focusing on damages to the skin, as well as deterioration of physical appearance, are more effective in changing behavior than health-focused messages (Hillhouse et al. 2008; Jones and Leary 1994). Interestingly, it has been found that some women exercise mainly for appearance-based reasons such as controlling weight, body tone, and attractiveness (Furia et al. 2009; Heinberg et al. 2001; Kilpatrick et al. 2005; Strelan et al. 2003). As such, the health and fitness industry may rely on appearance concerns to guide consumer choices for purchase.

Unfortunately, rather than overt health themes that emphasize well-being and fitness, *Women's Health's* common displays of weight loss, dieting, and appearance-based themes seem to encourage women to engage in goal-oriented behaviors that will achieve beauty and thinness. Thus, they may be similar to fashion magazines like *Cosmo* and *Glamour* (Malkin et al. 1999) and echo the traditional message that beauty is a woman's greatest asset. Similarly, Conlin and Bissell (2014) found this to be the case by the prevalence of thin female celebrities as cover models on women's magazines regardless of whether they focused on health or beauty.

By contrast, men appear to receive messages about physical strength and muscularity rather than appearance per se (although as stated earlier, men do receive messages about weight loss as well). They are encouraged to exercise for its

own sake relative to women, without the specification for why this might be important for health and well-being. Whether the intention of such overarching recommendations imply the connection between exercise and physical benefits that include such outcomes as reduction of blood pressure (Mayo Clinic, 2014) is unclear.

As expected, *Women's Health* depicted cover models partially clothed more frequently than *Men's Health*. Note that this was not a function of *Women's Health* publishing more covers in seasonally warmer months. This implies that women may be objectified more through visual images than men as seen in previous research (Fredrickson and Roberts 1997). Due to a high frequency of partially clothed cover models on *Women's Health* (52 % of cover models were depicted partially clothed) it seems that women's bodies are portrayed in a more sexualized manner than men's bodies, at least via how they are dressed. This may further emphasize the idea that one should engage in healthy activity for the purpose of looking attractive and sexy (like the partially-clothed cover models; Tiggemann and Williamson 2000). Interestingly, a comparison of advertisements in beauty and fitness magazines marketed to women found that models displayed more nudity in fitness magazines, perhaps to highlight an association between muscle tone and fitness (Wasylikiw et al. 2009). In doing this, magazines marketing health and fitness may create an ironic Catch-22 for women when overt physical characteristics of women's bodies are depicted. Though wanting to inspire "healthful" transformations, these images could potentially increase self-objectification, body shame, body surveillance, and disordered eating in the magazine's targeted female audience (Fredrickson and Roberts 1997), and encourage the "objectifying gaze" experienced by women from men. The preponderance of such images likely contributes to the fact that both men and women scrutinize women's bodies more than their faces when assessing a woman's appearance (Gervais et al. 2013). Future research might examine the nature of model poses, and whether female models are depicted as more alluring and provocative than males with regard to their body language.

One limitation of this research was that although magazine focus/content was held constant, solely focusing on *Women's Health* versus *Men's Health* was narrow in scope. There may be types of magazines – such as fitness magazines – that have a heavy emphasis on appearance, especially for men (Labre 2005). While this research updates existing knowledge about media, it may not be reflective of the amount of objectification that each gender receives from media sources as a whole.

## Conclusion

This research demonstrates that men may be facing body ideal pressures that previous generations did not experience, thus making Objectification Theory applicable to men (e.g., Slater and Tiggemann 2010). Daniel and Bridges (2010) explained

that internalization of objectification was related to an increased drive for muscularity in men. Because men face a muscular body ideal, Objectification Theory must focus on this motivation for men, rather than a drive for thin body ideal that is faced by women, in order for the theory to capture the contemporary male experience (Spitzer et al. 1999). For women, the findings represent little change in the thin-ideal message saturation that abounds for media. Paradoxically, by associating these appearance recommendations with the context of "health," women may be led into a flawed sense of reasoning (e.g., "I should look this way to be healthy"). The next step for this research would be to assess how the media frames, objectifying statements, and cover model images on *Men's Health* and *Women's Health* affect their audience. This study looked specifically at the first process of Framing Theory, in which the media packages messages in a way that emphasizes certain aspects of an event, news story, or piece of advice (i.e., frames them in a particular way) to a greater extent than others (Scheufele 1999). Future research should focus more specifically on the behavioral and cognitive impact of these frames. For example, do they, indeed, motivate individuals to change their exercise regimens or eating habits? (If magazines are ultimately selling an image and lifestyle, it would be important to determine whether consumers are actually persuaded by the advice packaged within these message frames). In the case of *Men's Health* and *Women's Health*, it seems suspect that no prominent captions literally discussed health, begging the question, "Just how healthy are health magazines for men or women?"

**Acknowledgments** We would like to thank the Rodale Corporation for providing access to the newsstand covers of *Men's* and *Women's Health* Magazines. We would also like to thank Allie Dezii, Kyle Richardson, Laura Rash, and Amy Kowalski for serving as coders in this research, and Alex Kentopp who assisted with editorial revisions.

**Compliance with Ethical Standards** Institutional Review Board Approval was obtained and all procedures adhered to the principles specified by the American Psychological Association (2010).

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