

# Investigating Appearance Ideal Alignment of Popular Fitness Apparel Brands on Instagram

Samantha Monk, University of Windsor, Canada\*

 <https://orcid.org/0000-0002-9904-1595>

Sheldon Fetter, University of Windsor, Canada

Paige Coyne, Henry Ford Health, USA

 <https://orcid.org/0000-0002-9062-9587>

Sarah J. Woodruff, University of Windsor, Canada

## ABSTRACT

Social media that caters to societal appearance ideals can be harmful to psychological well-being, particularly within the health/fitness industry. The purpose of this study was to determine whether racial/ethnic diversity, appearance ideal depiction, fitness competency, objectification, and sexualization differed between men and women in fitness apparel brand Instagram content. A content analysis of 400 images from ten popular fitness apparel accounts was performed. A binomial logistic regression,  $\chi^2(17) = 222.744$ ,  $p \leq .001$ , suggested that images with white, lower body weight, lower musculature, and sexualized posed models tended to feature women, while non-white, higher body weight, higher musculature, and neutrally posed models tended to feature men. The results may help guide interventions to prevent negative body dissatisfaction from viewing such content and encourage fitness apparel brands to reflect on the content of their promotional images on Instagram.

## KEYWORDS

Appearance Ideals, Body Dissatisfaction, Fitness Apparel, Instagram, Social Media

## INTRODUCTION

Appearance ideals are culturally informed beauty standards that inform society of how a person should look so as to be deemed appealing or desirable (Jacobi & Cash, 1994). Pressure to match appearance ideals can contribute to increased body dissatisfaction (BD; Cohen et al., 2019); BD is an unfavourable attitude toward one's physical appearance arising from a perceived difference between one's actual and ideal appearance (Heider et al., 2018). Approximately 49% to 84% of adolescents report experiencing BD (Dion et al., 2015), with dissatisfaction increasing with age (Bucchianeri et al., 2013). These numbers are troubling, as BD is associated with poor psychological health and

DOI: 10.4018/IJSMOC.331084

\*Corresponding Author

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well-being, including increased risk for low self-esteem, depressive symptoms, and suicidal ideation (Cafri et al., 2002; Goldschmidt et al., 2016; Kim & Kim, 2009; McCreary & Sasse, 2000; Paxton et al., 2006), reduced quality of life (Griffiths et al., 2017), and clinical eating disorders (Allen et al., 2015; Stice, 2002; Stice et al., 2011).

Over the past decade, social media have been a contributing factor to increased BD among young women and men (Fardouly et al., 2015; Fardouly & Vartanian, 2016; Fox & Rooney, 2015; Holland & Tiggemann, 2016; Kim & Chock, 2015; Tiggemann & Slater, 2013). It has been suggested that Instagram, in particular, contributes to BD more than other social media sites because of its predominant interactive, image-sharing format (Fardouly et al., 2015; Lonergan et al., 2019). This format induces a heightened culture of appearance evaluation, social comparison (Pedalino & Camerini, 2022), and self-objectification (Tiggemann & Anderberg, 2020) fostered by the ability to like and comment on posts (Ruckel & Hill, 2017). Instagram users can follow family, friends, celebrities, companies, brands, brand ambassadors, influencers, and content creators and access Instagram virtually anywhere once it is installed on a smartphone, providing limitless opportunities for social comparisons and engagement with idealized images. Furthermore, photos and videos are often selectively chosen and edited to cater to dominant societal appearance ideals, depicting most women with thin, visibly toned bodies (Carrotte et al., 2017; Fardouly et al., 2015), and men with low body fat, a muscular upper body, and toned abdominal muscles (Carrotte et al., 2017; Grogan & Richards, 2002; Ridgeway & Tylka, 2005). These images that are shared on Instagram cause harm to psychological well-being by implying that only a certain body type can be physically fit and by linking specific body types to peak health (Deighton-Smith & Bell, 2018; Grabe et al., 2008; Labre, 2005; Ricciardelli et al., 2010). Furthermore, in media, women with overweight or obesity and men with underweight or low musculature tend to be stigmatized or used as a convention to sell remedial products, or to be simply absent altogether (Fikkan & Rothblum, 2012; Morrison et al., 2003).

In recent years Instagram has provided a platform for retail brands to connect with customers and promote products (Freeman et al., 2014; Ginsberg, 2015; Klassen et al., 2018), with some of the more popular brands gaining large numbers of followers (e.g., a million or more). Makeup, lifestyle, and apparel brands tend to use models to showcase and sell products. However, the models chosen for these brands' promotional images may, knowingly or not, contribute to BD by reinforcing dominant, often unrealistic, societal appearance ideals. For example, fitness apparel brands feature models of certain body types and ethnic backgrounds in a range of poses and clothing styles, with varying depictions of objectification or sexualization. These images may contribute to BD through the type of content presented and the characteristics of the model displayed in that content (e.g., gender, race, body type, skin characteristics, disability representation, pose, sexualization; Perloff, 2014). Considering its many negative consequences, researchers have attempted to examine the social and environmental determinants of BD (Bucchianeri et al., 2013; de Vries et al., 2019; Dion et al., 2015; Grabe et al., 2008; Holland & Tiggemann, 2016; Paterna et al., 2021; Perloff, 2014; Santarossa & Woodruff, 2017; Tiggemann & Slater, 2013; van den Berg et al., 2007). While analysis has largely focused on specific hashtags in fitness-related social media content to date (e.g., #fitspiration, #fitspo, #thinspiration; Carrotte et al., 2017; Deighton-Smith & Bell, 2018; Santarossa et al., 2019; Tiggemann & Zaccardo, 2018), no study, to the authors' knowledge, has compared the depiction of men with the depiction of women in Instagram content from multiple fitness apparel brands. We filled this research gap by investigating the alignment of fitness apparel brand photos with dominant societal appearance ideals, and by seeking to determine whether bodies are represented differently between men and women.

## **The Current Study**

The overarching research question that the study aimed to answer was this: Are bodies depicted in popular fitness apparel brand images on Instagram represented differently between men and women? Moreover, this study aimed to identify key characteristics of fitness apparel brand photos on Instagram and establish whether the presence of specific characteristics could accurately predict

the gender of the model featured (i.e., man or woman). Exploring the characteristics of the models featured in fitness apparel brand photos could help to determine intervention targets for preventing BD risk factors when viewing such content. An improved understanding of fitness brand model characteristics could also facilitate a call for fitness apparel brands to reflect on the type of content depicted in their promotional images.

The specific objectives of this study were to discover whether diversity, appearance ideal depiction, depiction of fitness competence, objectification, and sexualization differ between men and women in fitness apparel brand Instagram content. The selection of these specific variables is driven by their relevance to the research question and by the broader context of examining how men and women's bodies are depicted in popular fitness apparel brand images on Instagram. First, there is a growing emphasis on inclusivity and diverse representation in today's society, making it crucial to examine whether fitness apparel brand images reflect diverse body types, sizes, and races. Assessing diversity in these images will help us to understand potential differences in the depiction of bodies between men and women. Second, examining appearance ideal depiction allows us to determine whether specific body ideals are reinforced in certain images on Instagram and whether there are differences in the portrayal of idealized body images between men and women. Third, given the focus on fitness apparel brands, assessing the depiction of fitness competence is relevant. Including this variable allows us to understand how men and women are depicted in terms of their perceived level of physical fitness and whether there are potential differences in the portrayal of fitness competence between women and men. Fourth, examining objectification allows us to evaluate whether men and women are depicted differently in terms of emphasizing their physical appearance over their individuality or agency. Lastly, we aim to investigate whether there are differences in the sexualization of men and women in fitness apparel brand images, including disparities in the display of sexualized poses, clothing, or contexts between men and women.

These selected characteristics provided a framework for analyzing and comparing the representation of men and women in fitness apparel brand images on Instagram. We hypothesized that the images featuring women would be less diverse, be more aligned with dominant appearance ideals, depict less fitness competence, and feature less objectification (Santarossa et al., 2019) but more sexualization than the images featuring men.

## **METHODS**

A content analysis was conducted to examine fitness apparel brand images, and a coding scheme for the images was implemented. Each method is expanded upon below.

### **Data Collection (Image Selection)**

To obtain the sample of popular fitness apparel brand Instagram accounts, the key phrase "top fitness apparel brands" was entered into Google, Bing, and Yahoo!. The search was conducted in June 2022 from a private browser to avoid targeted responses, and links were sampled from the first webpage returned by each search engine (Cohen et al., 2019).

The search returned 25 unique links. In total, a sample frame of 12 website articles listing 40 unique Instagram accounts was compiled by excluding links older than June 2017 ( $n = 1$ ) and paid advertisements ( $n = 12$ ). Account inclusion was determined on the basis of three main criteria: (1) popularity (minimum 50,000 followers;  $n = 20$  removed), (2) activity level on Instagram (minimum 200 posts, with the most recent post being made within one week of sampling;  $n = 3$  removed), and (3) the featuring of both men and women (one gender featured no more than 80% in the first 100 images;  $n = 7$  removed). These specific criteria were chosen for several reasons. First, accounts with a higher follower count have a broader reach and exposure, potentially capturing a larger and more diverse audience. Choosing these accounts enhances the generalizability of our findings and provides greater insight into how fitness apparel brand images are widely portrayed and received.

Furthermore, accounts with a higher follower count often reflect current industry trends and popular culture. Analyzing these accounts allows us to identify emerging patterns in the representation of bodies in mainstream fitness apparel brand images. Second, selecting accounts that post frequently increases the likelihood of having a substantial amount of data available for analysis. More posts provide a larger sample size, enabling us to identify trends with greater confidence. Third, ensuring representation of men and women within each account helps identify potential gender biases and provides a more accurate understanding of how fitness apparel brands are portraying men compared to women on Instagram.

All fitness apparel accounts that met these criteria were used for coding ( $n = 10$ ). The first 20 posts of men and the first 20 posts of women were then sampled from each account, generating a final sample of 400 posts for coding. Posts were skipped if they featured a video (i.e., reel) rather than an image, or if both men and women were present in the same post. For posts that included more than one image, the first image of the set was coded.

### Coding of Images

A coding scheme was adapted from Tiggemann & Zaccardo (2018) and Ahrens et al. (2022). For the adiposity variable, the Body Image Assessment for Obesity (BIA-O) rating scale was used to supplement the descriptions provided by Tiggemann & Zaccardo (2018). For the action variable, fitness activities were separated into body weight and weightlifting categories, and sport was added as a separate action. Images that included posing for a fitness modelling competition were included under the “fitness related” action category, and images that included posing for before and after photos were included under the “fitness unrelated” category. Lastly, instead of nesting sexualization within the objectification variable, we included sexualization as its own variable under the justification that a body can be objectified without being sexualized (Ahrens et al., 2022).

Images were first coded for demographics (gender, race/ethnicity). They were then coded for the presence of skin characteristics and physical disability, body weight and level of muscularity, the action portrayed in the photo, and the presence of objectification and sexualization. See Table 1 for a description of all variables coded.

### Coding Reliability

For reliability purposes, two coders were used to assess a sample of the images. To test the initial coding scheme and evaluate the agreement between coders, a pilot coding phase was conducted in which five example images were coded together. Following the initial pilot round, any discrepancies identified were discussed among the researchers, leading to further refinement of the coding scheme. To enhance objectivity, broader categories such as “sexualized facial expression” were broken down into more specific variables like “pouting” or “biting lip.” As part of the coding training process, a codebook with instructions was created, and predefined codes were provided for each variable to ensure consistent use of terminology.

The study selected 10% ( $n = 40$ ; Cohen et al., 2019) of the images by random number generator; the images were then coded independently by each coder. This resulted in acceptable levels of agreement on all variables based on Cohen’s kappa ( $k$ ; a measure of inter-rater reliability) which was substantial to perfect for all variables (see Table 1; Landis & Koch, 1977). Percent agreement between the two coders was 95% overall. In cases of disagreement, both coders conferred and agreed on a final coding decision until a kappa level of above 0.610 (i.e., substantial) was reached (Landis & Koch, 1977).

### Data Analysis

Descriptive statistics were computed for all variables (Table 2). A binomial logistic regression was performed to ascertain the effects of race, body weight, muscularity, action, objectification, and sexualization on the likelihood that a photo model was a man or woman. Two additional variables (skin characteristics and disability) were removed from the analysis, as a paucity of results (2.5% and

Table 1. Description of coded variables (n = 40)

Variable	Description	Details	k
Perceived Gender	The gender of the individual	Man, woman, impossible to determine from photo	1.000
Race/Ethnicity	The race/ethnicity of the individual	White, Black, Asian, Middle Eastern, other, impossible to determine from photo	0.900
Physical Disability	Presence of visible physical disability	Amputation, paralysis, visible movement disorder, presence of movement/visual/hearing/speech aid	1.000
Skin Characteristics	Presence of skin characteristics that do not conform to “ideal” standards	Hyperpigmentation, vitiligo, albinism, freckles, moles, acne, stretch marks, psoriasis, cellulite, scars	0.630
Adiposity ( <i>adapted Tiggeman &amp; Zaccardo, 2018</i> )	The individual’s level of visible fat	Body Image Assessment for Obesity (BIA-O) figure rating scale (Williamson et al., 2000)	0.642
Muscularity ( <i>Tiggeman &amp; Zaccardo, 2018</i> )	The individual’s level of muscular definition	Little to none, visible definition, high-level definition, or impossible to determine (due to the framing of the image or clothing covering the body)	0.757
Action ( <i>adapted from Tiggeman &amp; Zaccardo, 2018</i> )	The action the individual is carrying out in the image	Posing (fitness unrelated), posing (fitness related, e.g., at the gym, track, athletic pool), engaging in body weight fitness activity (yoga, running, swimming, or other body weight activity), engaging in weightlifting fitness activity, engaging in sport	0.954
Objectification ( <i>Tiggeman &amp; Zaccardo, 2018; Ahrens et al., 2022</i> )	Presence or absence of elements of objectification	Images feature <b>two or more</b> of the following aspects of objectification: <ul style="list-style-type: none"> <li>• Individual’s head and/or face absent or not clearly visible</li> <li>• A specific body part is the focus of the image</li> <li>• Small proportion of body visible (25–50%)</li> </ul>	1.000
Sexualization ( <i>adapted from Tiggeman &amp; Zaccardo, 2018; Ahrens et al., 2022</i> )	Presence or absence of elements of sexualization	Images feature <b>two or more</b> of the following aspects of sexualization: <ul style="list-style-type: none"> <li>• Sexualized facial expression (e.g., pouting, direct gaze, mouth open, or biting lip/tongue)</li> <li>• Sexualized pose (e.g., glutes pushed toward camera, back arched, wide stance, pulling at clothing/hair, or one foot forward to emphasize glutes)</li> <li>• Tight-fitting clothing – body contour easily visible through garment and/or less than ¼ inch space between garment and skin</li> <li>• Large amount of skin (i.e., three or more of the following: arms, cleavage, abdomen, and legs) exposed</li> </ul>	0.851

0.5% respectively) caused a quasi-separation of the data. Testing for linearity was not performed, as no continuous variables were used. There were 10 standardized residuals with values between 4.321 and -5.845 standard deviations, which were kept in the analysis. All other assumptions were met.

## RESULTS

Of the models whose races/ethnicities could be determined, 41.25% were white and 45.25% were non-white (Black, Asian, Middle Eastern, other/mixed combined). Regardless of ethnicity depicted, disability and skin characteristics were present in only 0.5% and 2.5% of all images, respectively. Most models (79.25%) were of normal body weight, and 47.75% had visible muscle definition. Overall,

Table 2. Frequencies and percentages of variables (n = 400)

Variable		Total (n = 400)	Images of Men (n = 200)	Images of Women (n = 200)
Race/Ethnicity	White	165 (41.25%)	68 (34%)	97 (48.5%)
	Black	110 (27.5%)	79 (39.5%)	31 (15.5%)
	Asian	16 (4%)	7 (2.3%)	9 (4.5%)
	Middle Eastern	18 (4.5%)	11 (5%)	7 (3.5%)
	Other/Mixed	37 (9.25%)	14 (7%)	23 (11.5%)
	Impossible to determine	54 (13.5%)	21 (10.5%)	33 (16.5%)
Disability	Present	2 (0.5%)	2 (1%)	0 (0%)
Skin Characteristics	Present	10 (2.5%)	4 (2%)	6 (3%)
Body weight	Underweight	46 (11.5%)	9 (4.5%)	37 (18.5%)
	Normal weight	317 (79.25%)	173 (86.5%)	144 (72%)
	Overweight	34 (8.5%)	18 (9%)	16 (8%)
	Obese	3 (0.75%)	0 (0%)	3 (1.5%)
Muscularity	Little to none	86 (21.5%)	8 (4%)	78 (39%)
	Visible definition	191 (47.75%)	96 (48%)	95 (47.5%)
	High-level definition	64 (16%)	49 (24.5%)	15 (7.5%)
	Impossible to determine	59 (14.75%)	47 (23.5%)	12 (6%)
Action	Posing, fitness unrelated	189 (47.25%)	76 (38%)	113 (56.5%)
	Posing, fitness related	68 (17%)	40 (20%)	28 (14%)
	Body weight activity	90 (22.5%)	48 (24%)	42 (21%)
	Weightlifting	43 (10.75%)	31 (15.5%)	12 (6%)
	Sport	10 (2.5%)	5 (2.5%)	5 (2.5%)
Objectification	Present	40 (10%)	22 (11%)	18 (9%)
Sexualization	Present	142 (35.5%)	24 (12%)	118 (59%)

models were more frequently posing in a setting unrelated to fitness (47.25%), than any other single setting. Objectification was present in 10% of all images, while sexualization was present in 35.5% of all images.

The logistic regression model was statistically significant,  $\chi^2(17) = 222.744$ ,  $p < .001$ . The model explained 56.9% (Nagelkerke  $R^2$ ) of the variance in gender and correctly classified 82.8% of cases. Sensitivity was 76.0%, specificity was 89.5%, positive predictive value was 87.9%, and negative predictive value was 78.6%. Of the six predictor variables, only five were statistically significant: race, body weight, muscularity, action, and sexualization (as shown in Table 3). A sexualized photo had 9.608 times higher odds of featuring a woman, and a photo depicting an underweight subject had 3.687 times higher odds of featuring a woman rather than a man. Increased muscularity was associated with a decreased likelihood of featuring a woman. A photo of a subject with little to no muscle definition had 9.969 times higher odds of featuring a woman than featuring a man. A Black or Middle Eastern person featured in a photo was less likely to be a woman, as was a model posing in a fitness-related setting.

**Table 3. Logistic regression predicting likelihood of depiction of a man based on race, body weight, muscularity, action, objectification, and sexualization**

	<i>B</i>	SE	Wald	<i>df</i>	<i>p</i>	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
<b>Race</b>								
Black	-1.650	0.370	19.844	1	0.000	0.192	0.093	0.397
Asian	-0.463	0.721	0.411	1	0.521	0.630	0.153	2.588
Middle Eastern	-1.655	0.756	4.797	1	0.029	0.191	0.043	0.840
Other	0.009	0.500	0.000	1	0.986	1.009	0.378	2.690
Unable to Determine	-0.060	0.492	0.015	1	0.904	0.942	0.359	2.473
<b>Body weight</b>								
Underweight	1.305	0.494	6.980	1	0.008	3.687	1.401	9.709
Overweight	-0.575	0.508	1.279	1	0.258	0.563	0.208	1.524
Obese	20.035	20956.658	0.000	1	0.999	502271100.308	0.000	
<b>Muscularity</b>								
Little to none	2.299	0.489	22.132	1	0.000	9.969	3.825	25.984
High-level definition	-1.048	0.404	6.741	1	0.009	0.351	0.159	0.773
Impossible to determine	-1.236	0.436	8.025	1	0.005	0.291	0.124	0.683
<b>Action</b>								
Posing, fitness-related	-0.847	0.415	4.171	1	0.041	0.429	0.190	0.966
Body weight activity	0.032	0.371	0.008	1	0.931	1.033	0.499	2.136
Weightlifting	-0.517	0.485	1.136	1	0.286	0.597	0.231	1.542
Sport	-0.800	1.005	0.634	1	0.426	0.449	0.063	3.221
<b>Objectification (Present)</b>								
	-0.406	0.570	0.507	1	0.476	0.667	0.218	2.036
<b>Sexualization (Present)</b>								
	2.263	0.333	46.085	1	0.000	9.608	5.000	18.465
<b>Constant</b>								
	-0.073	0.345	0.045	1	0.832	0.929		

## DISCUSSION

This study aimed to use Instagram to explore the extent to which key characteristics present in fitness apparel brand images could accurately predict the gender of the model (i.e., man or woman). The data suggest that images with models who were women were less diverse, had greater alignment with dominant appearance ideals, and were more sexualized than images featuring men as models. Overall, these results met the expectations of our hypotheses, except for fitness competence and objectification. Most photos featured both men and women posing in a way that was unrelated to fitness, with no predictive value in photos that featured the model engaging in body weight activity, weightlifting activity, or sports. Similarly, prediction of model gender was not possible based on whether objectification characteristics were present in the photo.

Fitness content on Instagram significantly contributes to visual health representation (Camacho-Miñano et al., 2019; Campbell & Farrell, 2020; Muralidhara & Paul, 2018; Reade, 2021). In fitpiration

posts, women and men are typically depicted with the “fit ideal” body (i.e., thin and toned for women and muscular, with defined abdominals, for men; Carrotte et al., 2017; Fardouly et al., 2015; Grogan & Richards, 2002; Ridgeway & Tylka, 2005). These images have proven to be harmful to psychological well-being by reinforcing the association between body type and health/fitness (Deighton-Smith & Bell, 2018; Grabe et al., 2008; Labre, 2005; Ricciardelli et al., 2010). Similarly, in this study we observed that popular fitness apparel brands on Instagram are depicting dominant appearance ideals through the models used in their promotional images, thereby strengthening the association between ideal appearance and exercise and connecting specific appearance ideals to certain genders. Most women models were white (if their race/ethnicity could be determined), were underweight or normal weight, had little to moderate musculature, and were depicted in sexualized poses. Conversely, most models who were men were non-white, were of normal weight, had moderate to highly defined musculature, and were depicted in neutral poses.

Interestingly, both skin characteristics and disability variables were extremely underrepresented in the sample. Of the 400 images analyzed, only 10 images (2.5%) featured models with atypical skin characteristics, which included only moles and light freckles. Hyperpigmentation, vitiligo, psoriasis, albinism, acne, scars, rosacea, stretch marks, and cellulite were absent from the sample population. As well, only two images (0.5%) featured models with an identifiable visible disability (amputation). In 2017, 14% of the Canadian population aged 15 years and over had one or more visible physical disability (Morris et al., 2018). These numbers suggest that authentic disability representation is severely lacking in the promotional images of fitness apparel brands on Instagram. Overall, these images imply that only a certain body type can exercise. In essence, popular fitness apparel brands on Instagram are acting as fitness gatekeepers by communicating what types of bodies can (or should) wear fitness clothes, and in turn, what types of bodies can (or should) engage in fitness activities. This reinforcement of appearance ideals may contribute to BD by conveying harmful messages about which body types deserve to exercise, an activity that should be open to and encouraged for all.

## Body Positivity Movement

As it is now becoming common practice for brands to use social media to promote and sell their products (Alalwan, 2018; Alalwan et al., 2016; Kamboj et al., 2018; Oh et al., 2018), there is an increasing responsibility for reflection on the messages they may intentionally or inadvertently be sending about gendered appearance ideals to their followers and customer base. According to Chandra-Mouli et al. (2018), gender socialization interventions need to be embedded into large-scale social platforms. A suitable avenue for this type of change could be through the body positivity movement.

In response to the negative health risk factors of BD, body positivity is a social movement that advocates accepting all bodies, regardless of size, shape, skin tone, gender, or physical ability, and reframes present-day appearance ideal standards as unattainable social constructs (Cohen et al., 2019; Cwynar-Horta, 2016). The movement has been gaining momentum in both media and advertising in recent years (Lazuka et al., 2020), and some apparel brands are beginning to feature body positivity and inclusion as part of their overall brand ethos. An example is the intimate apparel and lifestyle retailer Aerie. Launched in 2014, the brand is committed to promoting body positivity and diversity through unedited photos of its models. Its social media images typically include persons of various races/ethnicities and body types, atypical skin characteristics, and authentic disability representation (Convertino et al., 2019; Rodgers et al., 2019). Brands like Aerie use their influence to promote an inclusive and validating online community for their customers, in alignment with the body positivity movement.

Fitness apparel brands may wish to embrace aspects of the body positive movement to communicate that bodies of any gender, race, size, shape, skin type, or physical ability can and should exercise, and to avoid gatekeeping fitness in a way that restricts it to those bodies that conform to dominant Western appearance ideals. Such a move may contribute to lessening the risk of BD for those engaging with content on social media sites.

## **LIMITATIONS**

This study is not without limitations. First, sampling bias caused by seasonality and the timing of awareness campaigns may exist, as we collected only the most recent 40 images from each account that fit our parameters; however, we assumed the data collected were representative of each brand and would be comparable to subsequent data collections. In the future, it may be more suitable to sample images at different times of the year or over a longer period. Second, image analysis was limited to the characteristics chosen. Future studies could explore several other dimensions of Instagram posts (e.g., image manipulation such as filtering/photoshopping, or textual content of captions including message appeals and interactivity levels of certain images). Third, images were collected from apparel brand accounts that featured models who are both men and women. A bias toward portraying men and women in specific ways across all photos may exist within a single account; thus, it would be worthwhile to investigate differences in diversity/body representation between fitness apparel accounts that feature only women and those accounts that feature only men. Lastly, gender was considered a dichotomous variable (man or woman). Gender is fluid, and people are defining themselves in different ways as we learn more about identity. Future studies should consider how to incorporate other genders into such an analysis.

## **CONCLUSION**

Overall, this study suggested that images posted by popular fitness apparel brands on Instagram align with dominant societal appearance ideals, that these images imply that only certain body types can engage in fitness activities. Specifically, images in which models were white, had lower body weight and lower musculature, and appeared in sexualized poses tended to feature women, while images in which models were non-white, had higher body weight and higher musculature, and appeared in neutral poses tended to feature men. The accounts sampled featured models who were both men and women, and future studies may want to compare body representation between accounts featuring only women and those featuring only men. Finally, we believe these findings may identify intervention targets to mitigate the risk of BD associated with viewing such content. Additionally, we hope these findings raise awareness and encourage fitness apparel brands to reflect on the content they promote on Instagram and to foster more inclusive and positive representations.

## **ACKNOWLEDGMENT**

The authors do not have any acknowledgements to report.

## **COMPETING INTERESTS**

The authors do not have any conflicts of interest to report.

## **FUNDING AGENCY**

The authors do not have any funding to report.

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*Samantha Monk received her MHK in Applied Human Performance from the University of Windsor in 2020. Currently she is a PhD Student in the Department of Kinesiology at the University of Windsor, working within the Community Health, Environment, and Wellness (CHEW) Lab. Her research interests lie in supporting the health and wellness of fellow Canadians by investigating environmental influences on health outcomes through multidisciplinary, community-based research, with an emphasis on problematic social media use among youth. Her current research is focused on lifestyle outcomes of social media influencers and career guidance for high school students who desire a career in social media influencing.*

*Sheldon Fetter received her MHK in Sport Management from the University of Windsor in 2022. Currently she is a PhD student in the Department of Kinesiology at the University of Windsor, working within the Community Health, Environment, and Wellness (CHEW) Lab. Her research interests lie in exploring how young children are being taught self-regulation and well-being in education systems, with an emphasis on nutritional behaviours. Her current research is focused on nutrition and eating behaviours of children in kindergarten classes. Sheldon is particularly interested in community-based research and has recently partnered with the Bulimia Anorexia Nervosa Association (BANA), an eating disorder prevention and treatment organization.*

*Paige Coyne received her PhD in Kinesiology from the University of Windsor in 2023. She is a multidisciplinary researcher whose research interests lie in examining the physical, psychological, social, and environmental factors that impact health and other lifestyle behaviours. Her past research has focused on social media, and she has published and presented widely on issues of problematic social media use, self-esteem, body image, eating behaviours, and well-being among Canadians.*

*Sarah J. Woodruff is a multidisciplinary, community-based researcher who strives to advance health and wellness among Canadian children and adolescents. More specifically, she investigates environmental influences (e.g., family, peers, school, media) on nutrition, physical activity, body image, and other health outcomes.*