Psychology of Popular Media

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Following Up on #Fitspiration: A Comparative Content Analysis and Thematic Analysis of Social Media Content Aiming to Inspire Fitness From 2014 and 2021

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Creating and sharing content that ostensibly inspires fitness remains a popular use of Instagram. This study aims to understand constructions of fitness motivation in Instagram posts labeled "#fitspiration" from 2021 and draw comparisons to posts from 2014. A data set of 1,000 posts (n = 790 after exclusion criteria applied) labeled #fitspiration was extracted in January 2021 and compared to an analysis of 1,000 posts extracted in January 2014 (n = 944 postexclusions; Deighton-Smith & Bell, 2018). Content analysis showed images mainly contained exercise-related content, people, and text. People were typically depicted in gendered and objectified ways, and adhered to sociocultural body ideals surrounding thinness and muscularity. While comparable with the 2014 data set, significantly more exercise images and significantly fewer diet images were found, along with fewer markers of objectification and thin and/or muscular bodies. Reflexive thematic analysis was used to analyse text contained within images. Three themes were developed; (a) "Never miss a Monday": Fitness and health have rules, (b) Just do it: Lifting the weight of self-doubt, and (c) Strive to be the best: Consequences of decision making. Like the 2014 data set, themes constructed thin and muscular bodies as the desired end-goal of fitness and emphasized personal responsibility for fitness practices. However, some messages from 2014 were less salient (e.g., equating fitness with sexual attractiveness) and different ways of motivating fitness were identified (e.g., through instruction). Combined, analyses highlight how #fitspiration content in 2021 was similar to 2014, but with more emphasis on exercise and slightly less on appearance.

Public Policy Relevance Statement
Social media content labeled #fitspiration that aims to inspire fitness is hugely popular but has been criticized for its problematic messaging surrounding diet, exercise, and appearance. Our findings show that despite growing societal discourse surrounding the problems associated with certain types of #fitspiration content, these problematic messages remain prevalent in a sample of posts from 2021, albeit to a lesser extent than found in 2014.

Keywords: fitspiration, fitness, social media, content analysis, body image

#Fitspiration is a metadata label applied to social media content that ostensibly aims to inspire fitness and has become more prevalent over the past decade, rising from 1.8 million in 2014 (Deighton-Smith & Bell, 2018) to over 19.5 million in May 2021. Analyses of #fitspiration content have shown it to be appearance-focused, featuring a high prevalence of individuals who conform to an unrealistic muscular yet lean body type, as well as text-based messages that emphasize the importance of physical appearance and sexual desirability (Alberga et al., 2018; Deighton-Smith & Bell, 2018; Talbot et al., 2017; Tiggemann & Zaccardo, 2018). However, these content

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analyses of #fitspiration typically involve social media data extracted between 2014 and 2016, providing only a "snapshot" of #fitspiration content at a specific time point.

It is possible that #fitspiration content has evolved alongside societal movements advocating for body diversity in media (e.g., body positivity; Cohen et al., 2019), increased societal discourse critiquing appearance-focused constructions of fitness (Mazzo, 2021), and more general changes across social media platforms, for example, increased commercialization (Leaver et al., 2020). To date, one study has examined the evolving nature of fitspiration, finding no significant changes in fit ideal body depiction, fitness focus, objectification, or sexualisation in images posted between 2019 and 2021 (Ahrens et al., 2022). However, this work focused on specific influencer and fitness brand accounts, rather than posts tagged #fitspiration. Therefore, the present study aims to compare recent #fitspiration content on Instagram with past analyses of data from 2014 (Deighton-Smith & Bell, 2018). In doing so, provide an understanding of how constructions of fitness within #fitspiration Instagram spaces can change.

#Fitspiration Content on Social Media

Physical fitness is regularly conflated with physical attractiveness; fitness practices are often depicted as means to an attractive body rather than a fit and healthy one (e.g., Willis & Knobloch-Westerwick, 2014). This conflation is prominent in social media spaces (Monks et al., 2021). #Fitspiration has garnered attention from researchers specifically concerned with constructions fitness inspiration within posts. Analyses of bodies featured within #fitspiration have found that images contain objectifying elements and typically represent one body type: thin and toned (Deighton-Smith & Bell, 2018; Tiggemann & Zaccardo, 2018). Furthermore, researchers have made comparisons between fitspiration and other inspirational content (e.g., thinspiration), finding that while fitspiration endorsed problematic attitudes toward fitness, body image, and restrictive eating, it was less extreme and objectifying than content which overtly inspires thinness (Alberga et al., 2018; Talbot et al., 2017).

Fewer analyses have considered text within #fitspiration imagery (e.g., quotations). Simpson and Mazzeo (2017) found that #fitspiration messages within Pinterest encouraged appearance-related standards and weight management, emphasizing attractiveness as a motivation. Tiggemann and Zaccardo (2018) reported that while most #fitspiration messages on Instagram were positive, over 10% encouraged extreme or excessive behaviors. Using thematic analysis, Deighton-Smith and Bell (2018) found that quotations conflated physical fitness with attractiveness, constructed exercise and fitness as a worthy goal, communicated poor choices as a sign of personal weakness, emphasized the role of individual responsibility, conceptualized pain as essential, and fostered a sense of community.

Impacts of Viewing Fitspiration

The growth of #fitspiration has prompted researchers to examine the consequences of exposure to this content. Qualitative work suggests that adolescents and young adults engage critically with #fitspiration; they are skeptical of monetization elements (Easton et al., 2018) and recognize that images do not represent reality (Bell et al., 2021; Easton et al., 2018). Despite this criticality, #fitspiration users also describe how engagement can lead to feelings of guilt about choices and behavior, poor body image, and eating concerns (Easton et al., 2018; Raggatt et al., 2018). Women who post and engage with #fitspiration also tend to report higher scores on measures of disordered eating and compulsive exercise (Holland & Tiggemann, 2017; Raggatt et al., 2018). Furthermore, experimental work shows that brief exposure to #fitspiration content increases body dissatisfaction and negative affect among young women but does not motivate increased exercise behavior (e.g., Prichard et al., 2020; Robinson et al., 2017). Using experience sampling methods, Griffiths and Stefanovski (2019) highlighted the immediate impact of brief, naturally occurring exposure to #fitspiration, with participants reporting decreased body satisfaction and positive affect. However, subsequent variations of this research have yielded mixed findings (Krug et al., 2020; Yee et al., 2020).

Objectification Theory (Frederickson & Roberts, 1997) provides a framework for understanding how and why engagement with appearance-focused fitness messaging, including #fitspiration, contributes to negative outcomes (Deighton-Smith & Bell, 2018). The theory posits that societal emphasis on the appearance and sexual function of bodies, particularly female bodies, socializes girls and women into adopting outsiders' views of their bodies; a process known as "self-objectification" (Frederickson & Roberts, 1997). Fitness media, including #fitspiration, routinely emphasize physical attractiveness over physical function, for example, through images and text that emphasize the sexual appeal of fit bodies (Aubrey, 2010; Deighton-Smith & Bell, 2018), that likely contributes to self-objectification. Over time, self-objectification manifests in body shame and body surveillance behaviors that contribute to a range of negative outcomes including diminished wellbeing and disordered eating (Heflick & Goldenberg, 2014). Furthermore, it may have specific consequences within the realm of physical activity, since self-objectification has been linked to less accurate perceptions of bodily sensations (e.g., heart-rate, Ainley & Tsakiris, 2013). That said, no studies have formally examined objectification as the mediating mechanism of #fitspiration's negative effect, though trait self-objectification has been found to heighten young women's vulnerability to the negative impact of #fitspiration content on body image (Prichard et al., 2018).

The Present Study: Aims and Research Questions

Research highlights the heavily appearance-focused nature of #fitspiration Instagram content and the potentially negative consequences of engaging with it for some users. Yet, most research systematically examining #fitspiration content involves data from 2014 to 2018 (e.g., Deighton-Smith & Bell, 2018; Simpson & Mazzeo, 2017; Talbot et al., 2017; Tiggemann & Zaccardo, 2018). Therefore, we aim to understand the extent to which constructions of fitness within current #fitspiration Instagram spaces reflect those found in past content. Specifically, we replicate the methods of and compare the 2014 data from Deighton-Smith and Bell (2018) to content extracted in January 2021. The research is divided in two parts; Study 1 analyses and compares imagery using content analysis, Study 2 analyses text using thematic analysis. We aim to answer the following questions:

> *Research Question 1:* How is fitness inspiration currently constructed using imagery within the #Fitspiration space on Instagram? How has this changed since 2014?

> *Research Question 2:* How is fitness inspiration currently constructed using text within the #Fitspiration space on Instagram? How has this changed since 2014?

Study 1: Analysis of Imagery

Method

Sample

Ethical approval was provided by York St John University Ethics Committee. To extract the 2021 sample, we entered "#fitspiration" into Instagram's search engine on Friday, January 15, 2021, finding 19.0 million images. Following Deighton-Smith and Bell (2018), the 1,000 most recent posts were extracted using screen-capture, added to a Microsoft Word document, and numbered by Beth T. Bell. Where posts contained duplicated content (e.g., reposting), all instances were included to reflect their prevalence within the population. Next, 210 video screenshots were removed, resulting in a final sample of 790 posts. Data from 2014 comprised 1,000 posts downloaded on Friday January 17, 2014, 944 of which were eligible for analysis (see Deighton-Smith & Bell, 2018). Data and other study materials are available on the Open Science Framework (Bell et al., 2024).

Codebook Development

Deighton-Smith and Bell (2018) informed the coding framework (see Table 1). Images were coded according to (a) general content categories (e.g., diet-related and exercise-related) and (b) more specific body-focused criteria, originally developed using an inductive-deductive approach by the authors. These criteria were then compared to those of other published analyses of #fitspiration (e.g., Simpson & Mazzeo, 2017; Talbot et al., 2017; Tiggemann & Zaccardo, 2018) to determine whether further coding criteria were relevant to our research questions. Collective decisions regarding inclusion and exclusion criteria were discussed by all authors. One additional criterion was included (fat, based on Tiggemann & Zaccardo, 2018, see Table 2 for definition). Last, consistent with Deighton-Smith and Bell's (2018) inductive-deductive approach, we remained open to generating new coding categories. Hence, one additional coding category was identified; "COVID," to reflect images referencing the pandemic (e.g., posts referencing facemasks). Coding criteria are described in Tables 1 (general-coding) and 2 (body-specific).

Coding Process

Beth T. Bell and Catherine V. Talbot performed coding independently. While coding images 1–300, all authors met to discuss any issues encountered (approximately once per 100 images) and refine coding criteria. Once all images were independently coded, interrater reliability (Cohen's κ, 1960) was calculated. Interrater reliability was below the threshold of excellent agreement ($\kappa = .90$; McHugh, 2012) for some categories (thinness $\kappa = .64$, muscularity $\kappa = .79$, fatness $\kappa = .75$; face $\kappa = .89$; legs $\kappa = .89$; chest $\kappa = .83$; abs $\kappa = .89$; back $\kappa = .79$; body proportion $\kappa = .86$; active $\kappa = .89$; transformation $\kappa = .84$; clothing $\kappa = .77$; COVID $\kappa = .78$). Coders subsequently revisited a subsample of coding disagreements. Most reflected human error (e.g., failure to notice text, inconsistencies in the ordering of individuals within an image). However, some reflected inconsistencies in coding application (e.g., interpretations of what constituted back visibility) and so criteria were refined accordingly (e.g., specifying exactly what 25% of the back constitutes to be coded as present). Each coder then independently recoded disputed posts and interrater reliability was recalculated. At this point, interrater reliability was excellent for most categories (see Tables 1 and 2).

Once coding was complete, Beth T. Bell revisited the original data set of Instagram posts from 2014 (Deighton-Smith & Bell, 2018) to code these data according to the new criteria that we introduced for this study (namely fatness). Last, a subsample (100 images; 10%) from 2014 was coded by Beth T. Bell to ensure consistency across the two time points. Interrater reliability was very good across all coding criteria for general content and body content ($\kappa = .78$–1.00).

Findings

General Content Analysis

People were most commonly featured within #fitspiration posts (71.77%; $n = 567$), followed by exercise-related content (55.44%; $n = 438$), then text (39.40%; $n = 310$). Diet-related content (13.16%; $n = 104$), COVID-related content (3.54%; $n = 28$) and content classified as other (2.53%; $n = 20$) were less prevalent.

Comparison to Deighton-Smith and Bell (2018)—General. A series of 2×2 chi-square analyses compared frequency of coding criteria within the present data set to that of Deighton-Smith and Bell (2018; see Table 3). There were significantly more images of people, $\chi^2(1) = 71.32$, $p < .001$, and exercise-related content, $\chi^2(1) = 99.43$, $p < .001$, in the 2021 data set than in 2014. Conversely, there were significantly fewer images containing diet-related content, $\chi^2(1) = 39.42$, $p < .001$, and content labeled as other, $\chi^2(1) = 57.49$, $p < .001$, in 2021, than in 2014. Last, while there were fewer images containing text in the present data set than in 2014, this was not significant, $\chi^2(1) = 1.75$, $p = .19$.

Body Content Analysis

In total, 806 adult bodies were present in the data set. More women were depicted within images (55.71%; $n = 449$) than men

Table 1
General Coding Category Definitions, Frequency of Occurrence, and Intercoder Reliability

Category	Definition	Count	Percentage	κ
People	Images containing a person, excluding silhouettes and cartoon images.	567	71.77	.98
Text	Images containing text, including brand-names on products and displays on fitness monitors/equipment.	310	39.40	1.00
Exercise	Images of exercise equipment or clothing, including people wearing exercise clothing or engaging in exercise.	438	55.44	.96
Diet	Images of food, drink and/or dietary supplements (e.g., protein powder), including packing and equipment (e.g., blender).	104	13.16	.98
COVID	Images that made reference to the ongoing COVID-19 pandemic (e.g., images of face masks or hand sanitizer, text related to public health measures).	28	3.54	1.00
Other	Images that contained content not included in the above categories.	20	2.53	.96

Table 2
Coding Categories Used for Coding People Featured in #Fitspiration Images and Interrater Reliability (Kappa)

Categories of people	Definition	κ
Gender	Coded as man (1), woman (2), or unsure (3)	.96
Body composition[a]		
Thin	Thin/low body fat (1) or not (0)	.88
Muscular	Muscular (i.e., visible muscle tone—1) or not (0).	.90
Fat	High body fat[b] or not (0).	.97
Body proportion		
Head and shoulders	<25% of body, including head and shoulders, (1) or not (0)	.94
Half body	<50% of body (1) or not (0)	.92
Full body	>50% of body (1) or not (0).	.89
Body parts visible		
Face	Face visible (1) or face absent/obscured (0)[c]	.88
Arms	Bicep and shoulder and/or > 50% of forearm on show (1) or not (0)	.91
Legs	Thigh and/or >50% of lower leg visible (1) or not (0)	.91
Chest	Visible cleavage or visible pectoral muscles (1) or not (0)	.93
Abdomen	>25% of the abdomen exposed (1) or not (0)	.90
Back	>25% of back exposed (1) or not (0)	.94
Buttocks	>25% of the buttocks exposed (1) or not (0)	.94
Pose		
Active	Actively engaging in physical activity, for example, a yoga pose (1) or not (0)	.89
Selfie	Image of the self, taken by the self (1) or not (0)	.90
Transformation	Image that shows progress toward attaining a particular appearance-related ideal/body type (1) or not (0)	.86
Clothing		
Exercise-related	Clothing suitable for exercise, for example, gym clothing, sportswear including sports/cropped tops or sports/utility swimwear (1) or not	.93
Sexualised	Sexualised clothing, for example, lingerie, nonutility swimwear (1) or not (0)	.85
None	No clothing shown on body, except where clothing might reasonably be not expected, for example, hands (1) or clothing shown (0)	.90
Other	Clothing not included in previous categories (e.g., jeans) (1) or not (0).	.95

Note. BMI = body mass index.
[a] Body composition categories were not mutually exclusive (e.g., bodies could be coded as both thin and muscular). [b] Defined as bodies H-J on the Harris et al. (2008)), BMI-based figure rating scale: 1. [c] As this category was included to denote objectification, instances where the face was obscured by a COVID mask were included.

(42.43%; $n = 342$). For 1.86% of bodies ($n = 15$), gender was not apparent. Consistent with Deighton-Smith and Bell (2018), these bodies were excluded. Frequency of coding categories overall and by gender is shown in Table 4.

Within the sample, 51.96% ($n = 411$) of bodies were rated as thin/low body fat, and 38.05% ($n = 301$) were coded as muscular. Many individuals showed their full body (70.29%, $n = 556$), whereas a smaller proportion showed half their body (19.47%, $n = 154$); even fewer were depicted as head and shoulder only (10.24%, $n = 81$). Bodies depicted without faces featured in 22.76% ($n = 180$) of images. Arms were most frequently on show (72.19%, $n = 571$), followed by abdomen (31.35%, $n = 248$), chest (30.09%, $n = 238$), and legs (29.08%, $n = 230$). Fewer bodies were depicted with their back (6.32%, $n = 50$) or buttocks on show (4.42%, $n = 35$). Selfies constituted around one fifth of images (20.73%, $n = 164$), as did active poses (17.70%, $n = 140$). There were fewer transformation shots (6.70%; $n = 53$). Almost two thirds of the sample were depicted as wearing exercise clothing (62.20%; $n = 492$). A smaller proportion wore "other" clothing (20.61%; $n = 163$), sexualized (13.53%; $n = 107$), or no clothing at all (3.67%; $n = 29$).

Table 3
Content Analysis of General Content in #Fitspiration Images in 2021 and 2014

Category	2021 $N = 790$ *n* (%)	2014 $N = 944$ *n* (%)
People	567 (72.03)	490 (52.01)
Text	310 (39.40)	400 (42.37)
Exercise	438 (55.44)	299 (31.67)
Diet	104 (13.16)	238 (25.21)
COVID	28 (3.54)	N/A
Other	20 (2.53)	117 (12.39)

Note. N/A = not applicable.

Gender Analyses. To examine gender differences in bodily characteristics, chi-square analyses were performed. Women were more likely to be coded as thin, $\chi^2(1) = 9.72$, $p < .01$; display their full body, $\chi^2(1) = 42.27$, $p < .001$; show their abdomen, $\chi^2(1) = 17.74$, $p < .01$; back, $\chi^2(1) = 8.05$, $p < .01$; and buttocks, $\chi^2(1) = 10.16$, $p < .01$; be engaged in a selfie, $\chi^2(1) = 15.04$, $p < .001$; or transformation shot, $\chi^2(1) = 23.58$, $p < .001$; and wear clothing classed as other, $\chi^2(1) = 4.90$, $p < .05$. In contrast, men were significantly more likely to be coded as muscular, $\chi^2(2) = 61.06$, $p < .001$; showing half of their body, $\chi^2(1) = 38.92$, $p < .001$; or wearing no clothing, $\chi^2(2) = 15.96$, $p < .001$. There were no gender differences for fatness, $\chi^2(2) = 1.38$, $p = .24$; head and shoulder shots, $\chi^2(1) = 2.73$, $p = .10$; faces, $\chi^2(1) = 3.03$, $p = .08$; arm exposure, $\chi^2(1) = 1.59$, $p = .21$; chest exposure, $\chi^2(1) = 0.59$, $p = .44$; leg

Table 4
Content Analysis of Bodily Characteristics of Individuals Featured in #Fitspiration Images in 2021 and 2014 Overall and by Gender[a]

	2021 ($N = 791$)			2014 ($N = 707$)		
Category	Overall *n* (%)	Women *n* (%)	Men *n* (%)	Overall *n* (%)	Women *n* (%)	Men *n* (%)
Gender	—	449 (55.71)	342 (42.43)	—	484 (68.27)	223 (31.45)
Body composition						
Thin	411 (51.96)	255 (56.79)	156 (45.61)	623 (88.11)	419 (86.57)	204 (91.48)
Muscular	301 (38.05)	118 (26.28)	183 (53.51)	394 (55.73)	221 (45.66)	173 (77.58)
Fat	33 (4.72)	22 (4.90)	11 (3.21)	13 (1.84)	8 (1.65)	5 (2.24)
Body proportion						
Head and shoulders	81 (10.24)	39 (8.69)	42 (12.28)	89 (12.59)	69 (14.26)	20 (8.97)
Half body	154 (19.47)	53 (11.80	101 (29.53)	241 (34.09)	131 (27.07)	110 (49.33)
Full body	556 (70.29)	357 (79.51)	199 (58.19)	378 (53.47)	287 (59.30)	91 (41.81)
Body parts visible						
Face	611 (77.24)	357 (79.51)	254 (74.27)	457 (64.64)	294 (60.74)	163 (73.09)
Arms	571 (72.19)	332 (73.94)	239 (69.88)	464 (65.63)	297 (61.36)	167 (74.89)
Legs	230 (29.08)	124 (27.62)	106 (30.99)	176 (24.89)	144 (29.75)	32 (14.35)
Chest	238 (30.09)	140 (31.18)	98 (28.65)	221 (31.26)	130 (26.86)	91 (40.81)
Abdomen	248 (31.35)	168 (37.42)	80 (23.39)	239 (33.80)	160 (33.06)	79 (35.43)
Back	50 (6.32)	38 (8.46)	12 (3.51)	46 (6.50)	32 (6.61)	14 (6.28)
Buttocks	35 (4.42)	29 (6.45)	6 (1.75)	28 (3.96)	27 (5.58)	1 (0.44)
Pose						
Active	140 (17.70)	81 (18.04)	59 (17.25)	124 (17.54)	90 (18.60)	34 (15.25)
Selfie	164 (20.73)	115 (25.61)	49 (14.32)	181 (25.60)	129 (26.65)	52 (23.32)
Transformation	53 (6.70)	47 (10.47)	6 (1.75)	46 (6.50)	36 (7.44)	10 (4.48)
Clothing						
Exercise-related	492 (62.20)	277 (61.69)	215 (62.87)	357 (50.50)	255 (52.68)	102 (45.74)
Sexualised	107 (13.53)	61 (13.59)	46 (13.45)	101 (14.29)	79 (16.32)	22 (9.42)
None	29 (3.67)	6 (1.34)	23 (5.12)	36 (5.09)	11 (2.27)	25 (11.21)
Other	163 (20.61)	105 (23.39	58 (16.96)	217 (30.69)	142 (29.34)	75 (33.63)

[a] Excludes bodies where gender could not be determined.

exposure, $\chi^2(1) = 1.07$, $p = .30$; active poses, $\chi^2(1) = 0.83$, $p = .77$; and wearing exercise, $\chi^2(1) = 0.11$, $p = .74$, or sexualized clothing, $\chi^2(1) = 0.00$, $p = .96$.

Comparison to Deighton-Smith and Bell (2018)—Bodies.

Overall. Chi-square analyses were performed to compare the overall frequency of coding criteria within the present data set to that from Deighton-Smith and Bell (2018). Time was significantly associated with gender, $\chi^2(1) = 21.74$, $p < .001$; thinness, $\chi^2(1) = 228.30$, $p < .001$; muscularity, $\chi^2(1) = 46.90$ $p < .001$; fatness, $\chi^2(1) = 6.83$, $p < .01$; faces, $\chi^2(1) = 28.98$, $p < .001$; arms, $\chi^2(1) = 7.52$, $p < .01$; selfies, $\chi^2(1) = 4.99$, $p < .05$; exercise clothing, $\chi^2(1) = 20.83$, $p < .001$; other clothing, $\chi^2(1) = 20.06$, $p < .001$; half bodies, $\chi^2(1) = 41.09$, $p < .001$; and full bodies, $\chi^2(1) = 45.02$, $p < .001$. Specifically, the proportion of thin bodies, selfies, muscular bodies, other clothing, and half-bodies was higher in 2014 than in 2021; whereas there were proportionately more men, visible faces, arms on show, exercise clothing, and full bodies in 2021. No associations were found between time and legs, $\chi^2(1) = 3.31$, $p = .07$; abdomen, $\chi^2(1) = 1.02$, $p = .31$; chest, $\chi^2(1) = 0.24$, $p = .62$; back, $\chi^2(1) = 0.21$, $p = .88$; buttocks, $\chi^2(1) = 0.20$, $p = .66$; active, $\chi^2(1) = 0.01$, $p = .94$; transformation, $\chi^2(1) = 0.02$, $p = .88$; sexualized clothing, $\chi^2(1) = 0.18$, $p = .67$; no clothing, $\chi^2(1) = 1.83$, $p = .18$; and head and shoulders, $\chi^2(1) = 2.05$, $p = .15$.

Gender. Next, we compared the frequency of coding criteria at each time point separately for each gender. The datafile was split prior to conducting chi-squared analyses between coding criteria and time.

Women. Time was significantly associated with thinness, $\chi^2(1) = 102.99$, $p < .001$; muscularity, $\chi^2(1) = 37.82$, $p < .001$; fatness, $\chi^2(1) = 7.89$, $p < .01$; faces, $\chi^2(1) = 38.90$, $p < .001$; arms, $\chi^2(1) = 16.78$, $p < .001$; exercise clothing, $\chi^2(1) = 7.71$, $p < .01$; other clothing, $\chi^2(1) = 4.24$, $p < .05$; head and shoulder shots, $\chi^2(1) = 7.06$, $p < .01$; half bodies, $\chi^2(1) = 34.27$, $p < .001$; and full bodies, $\chi^2(1) = 44.51$, $p < .001$. The proportion of thin bodies, muscular bodies, other clothing, half-body shots, or head and shoulder shots was higher in 2014 than 2021. In contrast, there were proportionately more fat bodies, visible faces, arms on show, exercise clothing, and full bodies in 2021. No associations were found between time and legs, $\chi^2(1) = 0.52$, $p = .47$; abdomen, $\chi^2(1) = 1.94$, $p = .16$; chest, $\chi^2(1) = 2.11$, $p = .15$; back, $\chi^2(1) = 1.15$, $p = .28$; buttocks, $\chi^2(1) = 3.20$, $p = .57$; selfies, $\chi^2(1) = 0.13$, $p = .72$; active poses, $\chi^2(1) = 0.05$, $p = .83$; transformation shots, $\chi^2(1) = 2.64$, $p = .10$; sexualized clothing, $\chi^2(1) = 1.37$, $p = .24$; and no clothing, $\chi^2(1) = 1.14$, $p = .29$.

Men. Time was significantly associated with thinness, $\chi^2(1) = 122.83$, $p < .001$; muscularity, $\chi^2(1) = 33.55$, $p < .001$; legs, $\chi^2(1) = 20.26$, $p < .001$; abdomen, $\chi^2(1) = 9.67$, $p < .01$; chest, $\chi^2(1) = 8.95$, $p < .01$; selfies, $\chi^2(1) = 7.43$, $p < .01$; exercise clothing, $\chi^2(1) = 16.08$, $p < .001$; other clothing, $\chi^2(1) = 20.85$, $p < .001$; half bodies, $\chi^2(1) = 22.61$, $p < .001$; and full bodies, $\chi^2(1) = 16.32$, $p < .001$. The proportion of thin bodies, muscular bodies, bare arms, bare abdomen, bare chest, other clothing, and half-bodies was higher in 2014 than 2021. In contrast, there were

proportionately more selfies, exercise clothing, and full bodies in the 2021 data set. No associations were found between time and fatness, $\chi^2(1) = 0.47$, $p = .50$; face visibility, $\chi^2(1) = 0.10$, $p = .76$; arms, $\chi^2(1) = 1.67$, $p = .20$; back, $\chi^2(1) = 2.36$, $p = .13$; buttocks, $\chi^2(1) = 1.88$, $p = .17$; transformation shots, $\chi^2(1) = 3.67$, $p = .06$; active poses, $\chi^2(1) = 0.40$, $p = .53$; sexualized clothing, $\chi^2(1) = 1.64$, $p = .20$; no clothing, $\chi^2(1) = 3.49$, $p = .06$; and head and shoulder shots, $\chi^2(1) = 1.52$, $p = .22$.

Discussion

People and exercise content were highly prevalent in the 2021 sample, more so than in 2014. Text remained prevalent, showing only a slight and nonsignificant decline against the 2014 sample, but diet and "other" content were significantly reduced. Findings suggest that #fitspiration content may be more focused on exercise and people than in the past. It may be that content previously featured in #fitspiration spaces (i.e., diet) has migrated to more specialist spaces (e.g., Walsh & Baker, 2020). Though not the focus of the present analysis, video content was more prevalent in 2021 than in 2014. This trend may reflect increases in the popularity of video-based social media (e.g., TikTok), and Instagram's response to prioritize video within search algorithms (Warren, 2022). Less than 4% of images referenced the COVID-19 pandemic, despite physical activity being affected by social restrictions at the time (Stockwell et al., 2021).

Individuals featured mostly adhered to unrealistic thinness and muscular body ideals, consistent with existing research on #fitspiration (e.g., Simpson & Mazzeo, 2017; Talbot et al., 2017; Tiggemann & Zaccardo, 2018). While these body types were common, they were significantly less prevalent than in the 2014; a trend consistent across gender. That said, it is noteworthy that thin and muscular bodies still accounted for 50% of the sample, whereas fatness was rare. Thus, thin and muscular bodies remain commonplace in Instagram #fitspiration content. Last, while fatness remained rare, there were significantly more fat female bodies in the 2021 data set. This is consistent with other studies showing increased body diversity across the platform (e.g., Cohen et al., 2019; Lazuka et al., 2020).

There were gender differences in how women and men were depicted. In the 2021 data set, women were more likely to be depicted as thin, showing their full body, exposing their abs, back and buttocks, and/or in transformation shots or selfies, whereas men were more likely to be depicted as muscular, in half body shots, and wearing no clothing. These differences likely depict gendered sociocultural attractiveness stereotypes (e.g., Döring et al., 2016) and bear some similarity to the gendered, presentational differences in body proportion, body parts revealed, and clothing observed in 2014 (Deighton-Smith & Bell, 2018). However, not all gender differences were replicated, for example, differences in face exposure were present in 2014 but not 2021.

Last, both men and women were often depicted in an objectifying manner, for example, omitting their faces, exposing body parts, wearing sexualized or no clothing, and/or adopting inactive poses (Frederickson & Roberts, 1997). However, some markers of objectification were significantly lower in 2021; women were significantly more likely to be showing their faces, and men were less likely to be showing their arms, chest, and abdomen. Differences between time points regarding other body part exposure (e.g., buttocks) or clothing type (e.g., sexualized or no clothing) were not significant. Considering recent studies suggest some fitness-related social media content is more objectifying than others (Ahrens et al., 2022), it is unclear whether this reduced objectification is reflected in fitness-related social media more broadly, or just #fitspiration content.

Study 2: Analysis of Text

Method

Sample

From the Study 1 sample, images containing text ($n = 310$) were transcribed verbatim. As per Deighton-Smith and Bell (2018), where posts were duplicated, all instances were transcribed. Some posts were discarded: 11 contained non-English text and 27 contained illegible or incomplete words. Following collaborative discussion, a further 78 posts were discarded since the context behind the post and/or the wording were not relevant to the study's research aims (e.g., house transformation, weather screenshot, and if solely representing a company's branding, product, or membership). In total, 194 posts were included. This contrasts with the 392 posts containing text within the 2014 data set (Deighton-Smith & Bell, 2018).

Procedure

Study 2 encompassed a reflexive thematic analysis of the messages, informed by Braun and Clarke (2019, 2021). Again, it was important to be cognizant of recent literature conducted on #fitspiration, especially Deighton-Smith and Bell (2018; see Table 5 for summary of themes), but to remain data-driven throughout the process, to capture current and nuanced constructions of #fitspiration. All authors are cisgender, heterosexual women and experienced qualitative researchers, who have published research on #fitspiration and have engaged personally with #fitspiration content.

During phase one of familiarization, Nova Deighton-Smith documented initial areas of relevance (e.g., noting each body- or appearance-related reference such as weight, shape, or body part). In phase two, codes were systematically generated, using semantic and latent interpretations where appropriate (e.g., pain has value; exercise is a punishment to be grateful for). All authors met to discuss the fully-coded data set. Collaborative discussion facilitated shared understandings of how the data set was interpreted (Braun & Clarke, 2021) and shaped the Nova Deighton-Smith's strategy of generating themes during phase three. Codes were grouped to create patterns of meanings, within themes that were later developed and refined across the full data set (Phase 4). Each candidate theme was justified using evidence from the extracts and to depict clear distinctions among themes. During Phase 5, themes were refined, named, and illustrative extracts were selected for the written narrative (Phase 6). Unlike Study 1, we do not quantitatively compare frequency of themes within the 2021 data set to 2014, since this is incompatible with reflexive thematic analysis (see Braun & Clarke, 2021). Instead, we present the 2021 thematic analysis in the finding section, then interpret these themes in the context of the 2014 themes, as well as the broader literature, within the discussion.

Table 5
Themes Developed in the Present Study Using Data From 2021 With Example Quotes and Themes Developed Using Data From 2014 by Deighton-Smith and Bell (2018)

2021		2014	
Theme name	Description and example quote	Theme name	Description and example quote
1. "Never miss a Monday": Fitness and health have rules.	#fitspiration communicates a set of authoritative instructions, rules, or principles surrounding fitness, exercise, and nutrition, for example, "heavy resistance training…0.8–1 gram of protein per lbs [pounds] of BW [body weight], 200–300 + surplus of maintenance calories"	1. Fit is sexy	Physical fitness and physical attractiveness are blurred by explicitly idealizing the fit body and constructing it as something to be desired, for example, "Fit people have better sex"
2. Just do it: Lifting the weight of self-doubt,	Fitness is a journey that needs to be approached head-on, overcoming self-doubt, for example, "99% of the harm is caused in your head, by you and your thoughts. 1% of the harm is caused by reality, what actually happens and the outcome."	2. A "fit" physique requires commitment and self-regulation	Improvements in physical appearance presented as the desirable outcomes of fitness/exercise that could only be achieved through commitment, for example, "Building a bad ass body one rep at a time."
3. Strive to be the best: Consequences of decision-making	Decisions surrounding lifestyle choices have implications; individual responsibility is key to accomplishment. "I don't eat much but I can't seem to lose any weight"—[image of cappuccino]: 120 calories, [image of carrot cake]: 1 piece 762 calories—The volume in which you consume has little impact as opposed to the calories density of those foods/drinks.	3. Your choices define you	Fitness constructed as an individual's personal choice. This choice is self-defining. For example, "Quitters never win and winners never quit. Fall down 7 times, get up 8. If it is important to you, you will find a way. If not, you'll find an excuse. It's a lifestyle—train like there's no finish line."
		4. Pleasure and perseverance through pain	Pain as a source of motivation when exercising; an essential experience in order to gain the desired results of a "fit" physique. "I push my body to the limit, then push it harder! I blast my music, I sweat, I ache, I love pain and I hate skinny."
		5. Battle of the selves: "You vs. You"	Rhetoric emphasizing mind-over-matter and positioning fitness as a battle against the self, for example, "Once you control your mind, you can conquer your body."
		6. Here's to us! a celebration of a community	#Fitspiration is a community, and those who are not part of it may be hostile toward it, for example, "If you can look yourself in the mirror and say you are proud and gave it 100% then fuck everyone else and keep kicking ass!"

Findings

Three themes were generated to capture 2021 constructions of fitness inspiration (see Table 5 summary): "Never miss a Monday": Fitness and health have rules, Just do it: Lifting the weight of self-doubt, and Strive to be the best: consequences of decision making.

1. "Never miss a Monday": Fitness and health have rules.

Theme 1 illustrates how #fitspiration communicates a set of authoritative instructions, rules, or principles surrounding fitness, exercise, and nutrition (e.g., "On Friday we flex. It's kind of a big deal"). These guide the user as to what to expect when exercising (e.g., a workout should be painful) or what is or is not permitted (e.g., rules around food consumption). Rules often encouraged improved form and technique:

> Land as close to underneath your body as possible.

> Learn how to properly perform exercises without risk of injury.

Some posts underlined consistency over perfection, emphasizing the importance of personal investment and commitment to a regular routine:

> 4 simple rules: 1. Never go 3 days without exercise. You'll get used to not going. 2. Workout at least 3 days per week. 3. Never miss a Monday. This gives you momentum for the week. 4. Never give up.

Personal investment was further constructed in terms of nutrition, whereby specific instructions were outlined for both fat loss (e.g., "Best workouts for armpit fat: arm circles, bent over row, push ups, and lateral raises") and hypertrophy (e.g., "heavy resistance training,…0.8–1 g of protein per lbs [pound] of BW [body weight], 200–300+ surplus of maintenance calories"). Occasionally, these instructions were gendered ("Ladies make sure you're doing your squats and drinking your water"). Some posts explicitly characterized rules around weight gain, food consumption, and exercise as professional guidance, positioning the fitspiration poster as having expertise. However, there were no posts providing exercise adaptations for the user (e.g., to decrease the demand of an exercise or movement):

> Expert PT essential guide—preventing working from home weight gain. Consume high protein snacks, drink plenty of water, prep healthy lunches, exercise during your lunch break, stand at least every hour, keep **** high, wait 10 mins before acting on cravings—it may pass.

One rule was clearly prevalent: the value of embracing pain during exercise. Exercise was positioned as something that "should" hurt in order to be effective, and that pain is prosperous:

> If you aren't hurting after a good workout then obviously you haven't done something right.

2. Just do it: Lifting the weight of self-doubt

Theme 2 constructed fitness as a journey and emphasized the importance of approaching exercise head-on. Overcoming feelings of self-doubt and confronting fear were the first steps toward a successful outcome and negative self-talk was framed as hindering successful fitness gains:

> 99% of the harm is caused in your head, by you and your thoughts. 1% of the harm is caused by reality, what actually happens and the outcome.

To overcome rumination, fitspiration users were encouraged to reframe their thought processes and fortify their mind in the same way that they might retrain their body ("Believe this: the body only can achieve what the mind believes"). A successful outcome required autonomy and resolve, and success was only rewarded to those driven by an outward show of effort and competition:

> Success belongs only to those who are willing to work harder than anyone else.

There were contradictions in the way fitness journeys were positioned. On one hand, self-improvement was an opportunity to be seized, with the process neoliberally defined as effortless and uncomplicated ("Just get your butt to the gym!"). On the other, encouragement was offered to those who grappled with the weight of their own expectations and allowances were made for those who struggled:

> Forgive yourself each night and start every morning with a plan to do better. Don't carry around any burden or pain. Let it all go.

In the specific context of weight loss, #fitspiration followers were, at times, reminded that high expectations and quick fixes are unrealistic goals ("You aren't supposed to lose weight fast. You aren't supposed to lose weight every single week"). However, those "unwilling" to confront a challenge were positioned as failing:

> 10 things said by losers: 1. I'll start Monday. 2. It's not my fault. 3. I can't do it. 4. It's not fair. 5. I don't have time. 6. I'm offended. 7. You suck. 8. She/he got Lucky. 9. I'm too tired. 10. Easy for you to say.

3. Strive to be the best: Consequences of decision making

Linked with messages surrounding investment (Theme 1) and what is required to achieve a desired fitness or aesthetic outcome (Theme 2), this theme draws highlights the implications of decision making. In many extracts, individual responsibility was emphasized as key to accomplishment. The concept of regret was discussed in particularly gendered terms, focusing on what could be achieved aesthetically through fitness; women were explicitly told to train hard and be motivated by pride in their appearance:

> The only time you should look back in your life is if you're checking out your booty.

> Hustle for that muscle baby girl. Let's go! I don't wanna hear excuses.

Decisions around diet were portrayed as influencing general life happiness (e.g., "healthy mom = healthy family") as well as means to a desirable physical appearance. Some posts idolized lifestyles that centered on either nutrient-dense foods or training-related supplements:

> Every-time I eat a salad I literally say to myself my stomach & life better be better after this.

> I mean at this point I really think that my blood type is really just whey.

For those struggling with weight status or dietary choices, some posts were framed to shame a particular mindset, using text and corresponding images to visualize this:

> "I don't eat much but I can't seem to lose any weight"—[image of cappuccino]: 120 calories, [image of carrot cake]: 1 piece 762 calories—The volume in which you consume has little impact as opposed to the calories density of those foods/drinks.

Choices were positioned as defining future outcomes and therefore users were encouraged to (a) perceive themselves as having high internal control of their journey and (b) to accept personal responsibility for their decisions:

> Today is my tomorrow. It's up to me to shape it, to take control and seize every opportunity. The power is in the choices I make each day. I eat well, I live well. I shape me.

In a similar way that users were encouraged to overcome the burden of self-doubt in Theme 2, it was recommended they disregard the appraisals of others. Here, listening to criticism was framed as too high a risk to take, therefore users were encouraged to ignore those who expressed an opinion. It was inferred that those who expressed judgement were either jealous of others having a "fit" lifestyle or unlikely to be in pursuit of similar fitness goals. Extracts created an "us vs. them" community; an in-group and out-group dichotomy between fitspiration and nonfitspiration users/posters:

> The best weight you'll ever lose is the weight of other people's opinions.

> The only time haters, pretenders & naysayers win is when you listen to them.

Discussion

Reflexive thematic analysis highlighted the different ways in which fitness inspiration was constructed in 2021. Fitness was inspired by promotion of a set of rules and instructions (Theme 1), advocacy of a mind-over-matter mindset (Theme 2), and emphasis on personal responsibility and decision making (Theme 3). Intersecting across these themes were gendered constructions of the "fit" (i.e., muscular and thin) body as being both attractive and desirable. Themes developed in the present analysis share considerable overlap with those developed from 2014 (Deighton-Smith & Bell, 2018; see Table 5 for summaries), but with some notable differences and nuance.

Research has documented the value users place on social media as a source of health information (Raggatt et al., 2018), especially during the pandemic when other resources were unavailable (Goodyear et al., 2021). In the 2021 data set, #fitspiration posts supported this function by positioning fitness as rule-based (Theme 1) and inspiring fitness practices through instruction and guidance. A thin and

muscular physique was typically positioned as the desired outcome of rule-following (Theme 1), and the importance of hard-work and commitment to this was emphasized (Themes 1 and 2). Here, the 2021 data set echoes the "A fit physique requires hard-work and determination" theme from 2014, as well as prominent performance and perfection discourses found more broadly within sporting contexts (e.g., Hall, 2016).

Acceptance of pain during exercise was positioned as part of these fitness rules (Theme 1), echoing the 2014 "Pleasure and perseverance through pain" theme. Exercise-related injuries are common in nonelite samples where some continue to exercise through pain (Grice et al., 2014). Our findings highlight renewed concern for those who are new to exercise, use social media content for guidance, or those who are exercise intolerant.

Fitness was positioned as "mind over matter" (Theme 2) wherein the desired outcomes of fitness were constructed as achievable through hard work and positive mindset, irrespective of physical ability, knowledge base, and/or personal circumstances. This positioning is consistent with broader neoliberal societal discourses, including those related to health and fitness, that emphasize personal responsibility for achievement and minimize the inequalities (e.g., disability, low socioeconomic status) that may hamper this (e.g., Ayo, 2012). This is comparable to the "Battle of the Selves: You vs. You" theme from 2014. Continuing this emphasis on personal responsibility, Theme 3 constructed fitness, and the fit body, as a personal choice and shamed users, notably women, for making poor choices. This theme draws clear parallels with "Your Choices define you" from 2014, as well as other analyses of fitness-related social media content that has found shaming discourses to be prevalent (Toffoletti & Thorpe, 2021).

Some themes from 2014 were less salient in 2021. Despite a fit body being constructed as the desired outcome of fitness (Themes 1–3), the "fit is sexy" discourse from 2014 that overtly sexualized the fit body was less salient. Similarly, while posts alluded to an in-group and out-group dichotomy between those who adhered to #fitspiration and those who did not, this messaging was less salient than the "Here's to us! A celebration of community" theme from 2014.

General Discussion

The present study examined how fitness inspiration is constructed within #fitspiration Instagram posts from January 2021 and compared these constructions to those from January 2014 (Deighton-Smith & Bell, 2018). Our analyses highlight how over a 7-year period, data sets bear close similarities; both featured exercise-related content, thin and muscular models depicted in idealized, objectified, and gendered ways, and neoliberal messaging about exercise that emphasizes personal responsibility. However, notable differences exist; posts from 2021 contained significantly more exercise content and significantly less diet content. There were also significantly fewer people featured who adhered to cultural body ideals surrounding thinness and muscularity, and fewer markers of objectification. Text themes explicitly emphasizing the link between fitness and sexual desirability were less salient in 2021, and text focusing on exercise-related knowledge and instruction was more salient. Combined, our analyses suggest that over time, #fitspiration posts have become slightly more exercise-focused and slightly less appearance-focused.

Numerous factors may have contributed to the subtle differences in #fitspiration content observed in 2021. First, increased societal discourse surrounding negative impacts of objectifying and appearance ideal fitness media has led to tangible changes in its framing. For example, popular fitness influencer Kayla Itsines received critique for her "Bikini Body Guide" workouts, leading to a less appearance-focused rebrand in 2021 (Mazzo, 2021). Relatedly, there is a growing body positive movement within social media spaces that advocates for increased body diversity and representation (Cohen et al., 2019; Lazuka et al., 2020). Furthermore, the COVID-19 pandemic has facilitated a global focus on health and fitness as protection from the virus, which was reflected in online spaces at the time (Talbot & Branley-Bell, 2022). Last, business capabilities within Instagram have evolved since 2014, including increased commercialization (Leaver et al., 2020). This may account for the narrower focus of #fitspiration content observed (i.e., more exercise-less diet-content). Longitudinal research should explore why and how social media spaces evolve over time.

Crucially, our study's findings should not be used as evidence that objectifying and appearance-ideal promoting content are less prevalent in all fitness-related Instagram spaces in 2021 than in 2014. A recent analysis of fitness content documented that some types of fitness motivation content were more heavily appearance-focused and objectifying (e.g., fitness influencers) than others (Ahrens et al., 2022). Thus, analyses of alternative fitness spaces or individuals may yield different results. As further support of this, our finding that diet imagery was less common in #fitspiration spaces might reflect this content being featured elsewhere in hashtags across food-related social media, some of which also idealize accountability and "responsible" consumption (e.g., #cleaneating, see Walsh & Baker, 2020).

Implications

Our findings indicate that while Instagram content tagged #fitspiration is prone to change, our analyses conducted at the same time of year, but in different years yielded different, yet parallel, results. This finding has implications for research. For example, researchers conducting exposure experiments or experience sampling studies should consider how well the content reflects that which is currently available in social media spaces. Hashtags do not reflect a static reality, but instead evolve with technological developments and cultural shifts over time.

Constructions of fitness motivation in 2021 continue to perpetuate problematic norms. The prevalence of lean, muscular, and objectified bodies, coupled with messaging that shames dietary choices, is cause for concern due to the well-documented links between such content engagement and body image concerns and eating disorder symptoms (Holland & Tiggemann, 2017; Prichard et al., 2020). Further compounding this, representation of fatness remained rare. The lack of body diversity could serve to discourage those who do not conform to idealized norms from feeling part of these spaces, further perpetuating weight stigma (Clark et al., 2021). Last, messages advocating pain in exercise may increase injury risk, and promoting unrealistic exercise regimes could contribute to compulsive exercise or lead to disengagement from health behaviors (Honary et al., 2019). Both creators and consumers of #fitspiration content need to develop an awareness of these issues to minimize the risks associated with #fitspiration. Future work should consider the

adaptation of existing critical media literacy programs (e.g., Bell et al., 2022) for this purpose, with the aim of reducing problematic content and increasing individual resilience.

Limitations

The present study replicated methods from Deighton-Smith and Bell (2018), meaning some content was excluded. First, that of video content, despite comprising almost one-fifth of the sample. Research has shown that #fitspiration videos feature similar images and messages to thinspiration content, for example, promoting calorie restriction (Ratwatte & Mattacola, 2021), however further analysis of #fitspiration videos is needed. Second, text-based captions were excluded. Given that captions assist image interpretation (Paddock & Bell, 2021), future analyses should consider these. Third, we excluded images where gender was inconsistent with a binary classification system. Examinations of fitness constructions sensitive to the broad spectrum of gender identities are needed. Fourth, we acknowledge our sole focus on content tagged #fitspiration despite variations of this hashtag being available on social media (e.g., #fitspo). Fifth, we did not code the origin of the post (i.e., who posted it), nor the veracity of the health and fitness information contained within them. Misinformation is a growing issue of social media (Leaver et al., 2020), understanding the trustworthiness and credibility of #fitspiration content is an important avenue for future research.

Furthermore, data were collected during the Covid-19 pandemic, when people were subject to government-mandated lockdowns that restricted movement (Stockwell et al., 2021). This context was present in the data set; 28 posts referenced the pandemic (e.g., some extracts focused on maintaining a lean body while working from home). Furthermore, 33 individuals coded as "face obscured" did so through wearing a face mask in an indoor space, which was a legal requirement in many countries. Face obscured is regarded as a key marker of objectification (Frederickson & Roberts, 1997), but it is unclear whether these images would have the same impact. This may also explain why gender differences in facial obfuscation were present in 2014, but not in 2021.

Conclusion

In conclusion, the present study demonstrates #fitspiration content on Instagram can differ across time points. While content from 2021 resembled that from 2014; there were notable differences. More specifically, #fitspiration in 2021 was slightly more exercise-focused and slightly less appearance-focused. Conceptualizing social media spaces as fluid is important as research on this topic progresses, both in relation to #fitspiration and beyond.

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