



Article

Are fitness influencers really helping? Gendered portrayals in Instagram's fitness industry

¿Realmente están ayudando los influencers de fitness? Representaciones de género en la industria del fitness en Instagram

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Abstract: This study examines gendered portrayals within Instagram's fitness industry, focusing on self-efficacy, product placement, and sponsorship dynamics among influencers. A comparative content analysis was conducted on 1,000 posts from 200 male and female fitness influencers (with at least 10,000 followers), selected through purposive and snowball sampling. Results reveal that while self-efficacy-oriented content does not significantly differ across genders nor consistently drive higher engagement, product-oriented posts dominate the fitness landscape, with exercise-related products more frequently featured than diet-related ones. Sponsorships emerge as a critical differentiator: female influencers secure significantly more brand collaborations and achieve higher engagement rates compared to male counterparts. These findings highlight the intersection of consumerism, gender, and fitness culture on social media, offering insights into influencer marketing strategies and the evolving role of authenticity, attractiveness, and engagement in shaping brand partnerships.

Keywords: Fitness influencers, Product sponsorship, Gender differences, Content analysis, Online fitness industry.

JEL Classification: M31, M37, L83.

Resumen: Este estudio examina las representaciones de género dentro de la industria del fitness en Instagram, centrándose en la autoeficacia, la colocación de productos y la dinámica de patrocinio entre influencers. Se realizó

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un análisis comparativo de contenido sobre 1,000 publicaciones de 200 influencers de fitness (hombres y mujeres) con al menos 10,000 seguidores, seleccionados mediante muestreo intencional y técnica de bola de nieve. Los resultados revelan que, aunque el contenido orientado a la autoeficacia no difiere significativamente entre géneros ni impulsa de manera consistente un mayor nivel de interacción, las publicaciones orientadas a productos dominan el panorama del fitness, siendo los productos relacionados con el ejercicio más frecuentes que los dietéticos. Los patrocinios emergen como un diferenciador clave: las influencers mujeres aseguran significativamente más colaboraciones con marcas y logran mayores tasas de interacción que sus contrapartes masculinas. Estos hallazgos destacan la intersección entre consumismo, género y cultura fitness en redes sociales, ofreciendo perspectivas sobre las estrategias de marketing de influencers y el papel evolutivo de la autenticidad, la atracción y la interacción en la configuración de las alianzas con marcas.

Palabras clave: Influencers de fitness, Patrocinio de productos, Diferencias de género, Análisis de contenidos, Industria del fitness en línea.

Clasificación JEL: M31, M37, L83.

1. Introduction

Social media has become an integral part of modern life, with 5.17 billion users globally (Statista, 2025). This widespread adoption makes social media a powerful platform for communication, information sharing, and influence. Instagram, a photo and video sharing social media platform, has become increasingly popular with over 1.4 billion monthly active users (Auxier & Anderson, 2021) and has surpassed many other social media platforms in terms of engagement (Statista, 2025; Maldonado-González et al., 2025).

Instagram's highly visual and interactive nature has also made it a powerful tool for persuasion, particularly in the realm of marketing and consumer influence (Lee & Kim, 2020; Yuvarani & Saravanan, 2021). This persuasive power of Instagram is well utilized by social media influencers. Social media influencers are individuals with large number of followers, who leverage their social media presence by sharing content with their followers through their social media accounts (de Veirman et al., 2017). Pertinent to this research are the social media influencers who specialize in fitness also known as fitness influencers (Durau et al., 2022).

Fitness influencers are social media personalities who focus on health and exercise content, leveraging platforms like Instagram to share workout demonstrations and encourage followers to adopt active lifestyles (Durau et al., 2022). Their role extends beyond exercise demonstrations, as they also serve as catalysts for health and social behavior change (Hudders & De Jans, 2021). By offering fitness advice, wellness tips, and endorsing products, fitness influencers can inspire audiences to engage in healthier habits (Sokolova & Perez, 2021). Research has highlighted their positive impact on increasing physical activity and addressing the challenges of sedentary lifestyles (Pilgrim & Bohnet-Joschko, 2019). While their content benefits users by encouraging fitness participation, influencers themselves also gain advantages, such as growing their audience, enhancing their reputation, and increasing their appeal to advertisers, ultimately leading to financial opportunities (Durau et al., 2024).

Additionally, fitness influencers frequently engage in brand partnerships, particularly with fitness-related companies. Sponsored collaborations and promotional content are widespread among influencers as they communicate with their followers (Janssen et al., 2022; Campbell & Farrell, 2020). Marketing research suggest that influencer marketing can be highly effective across different contexts, benefiting brands through increased visibility and credibility (Vrontis et al., 2021; Hudders & De Jans, 2021). Notably, influencers perceived as authentic, knowledgeable, and trustworthy tend to enhance brand appeal (Hudders & De Jans, 2021). Scholars have underscored the importance of branding

strategies in social marketing and health communication, as strong personal brands and endorsements of fitness products can serve as influential tools for encouraging physical activity (Basu & Wang, 2009; Evans et al., 2008).

Fitness content on Instagram promoting self-efficacy

One of the key elements that fitness influencers emphasize is self-efficacy- the belief in one's ability to succeed in specific situations or accomplish a task (Bandura, 1977). An exploratory content analysis of fitness influencers' social media posts by Willoughby et al. (2023) revealed that fitness influencers often share content that incorporates key health communication strategies known to support positive behavior change, such as self-efficacy. Their posts frequently highlight achievable goals, personal progress, and motivational messaging, all of which can enhance individuals' confidence in their ability to adopt and maintain healthy behaviors (Willoughby et al., 2023). Similarly, Kim et al. (2023) argue that the content shared by fitness influencers enhances physical outcome expectations, a key component of self-efficacy. By creating content that builds confidence in one's ability to engage in and sustain fitness routines, fitness influencers play a crucial role in strengthening users' self-efficacy and motivating them to participate in physical activity (Kim et al., 2023). However, there remains a gap in understanding whether male and female fitness influencers differ in their emphasis on self-efficacy within their Instagram content. Therefore, we posed:

RQ1: How do male and female fitness influencers on Instagram differ in their emphasis on self-efficacy in their posts?

Influencers build their brand not only by generating content but also by demonstrating strong engagement, which signals to advertisers that their brand is influential and worth endorsing (Swani & Labrecque, 2020). Engagement, typically measured through likes, comments, and shares, serves as a key indicator of how users respond to fitness-related content (Arora et al., 2019). Prior research has identified several content types that drive engagement among fitness influencers. For instance, Garcia (2024) found that fitness-related TikTok videos featuring body transformations, fitness tips, and motivational content garnered the highest engagement. Similarly, Juszczak (2023) observed that powerlifters, trainers, and fitness amateurs who emphasized muscularity and high-impact workouts received greater audience interaction. Meanwhile, Ogunleye (2024) analyzed 226 Instagram posts and found that trend-based and user-generated content (UGC) attracted the highest engagement, while interaction, entertainment, and informational posts showed moderate engagement.

In contrast, research on objectification in fitness influencer content has revealed different patterns. Studies by Murashka et al. (2021), and Tiggemann and Zaccardo (2018) found that sexualized and objectified portrayals- such as women posing in a provocative manner or men accentuating highly muscular body parts, are among the most common themes in fitness influencer posts. However, Willoughby et al. (2023) reported that while objectification is prevalent, it is associated with lower engagement. Despite the growing body of research on fitness influencer engagement, there remains a gap in understanding whether self-efficacy-oriented content drives user engagement. While self-efficacy has been shown to influence physical activity behavior (Sallis & Owen, 1999; Greene et al., 2006), its direct impact on engagement metrics remains unclear. Given the evidence that engagement is highest for content that motivates and inspires action (Garcia, 2024), it is essential to examine whether self-efficacy-oriented Instagram posts receive higher engagement than those without such elements. Thus, we posed the following research question:

RQ2: Do Instagram posts by fitness influencers that emphasize self-efficacy receive higher engagement compared to those that do not?

Product placement in fitness content on Instagram

Consumer engagement has become a focal point in marketing research, emerging as a critical area of study (Dessart et al., 2015). In the context of online engagement, influencers play a pivotal role in mediating interactions between potential consumers and brands (Silva et al., 2021). Companies have already recognized influencers as opinion leaders who mediate the transmission of information to their extensive online following (Uzunoglu & Kip, 2014) facilitating purchasing and consumption. Their ability to mobilize large audiences makes them valuable brand ambassadors, as their engaged relationships with followers lend credibility and trust to the messages they convey (Lim et al., 2017). Pertinent to this study, fitness influencers have also been found posting product-oriented fitness content (Devi & Mahapatra, 2022). Product-oriented content posted by fitness influencers is conceptualized as a post wherein a certain product placement is showcased by influencers like dietary supplements, protein powder, whey, dumbbells, yoga mat or other fitness equipment/products that aid the influencers in building and sustaining the lifestyle they portray (Rutter et al., 2021). Research has shown that fitness influencers significantly impact consumers' purchase intentions when they endorse or display products, they claim to use in their fitness routines (Jorge, 2023). Silva et al. (2021) highlighted the prevalence of product endorsements in fitness influencer content, finding that clothing (39%), food (26.8%), and aesthetic and cosmetic products (13.4%) were among the most endorsed categories. These product endorsements play a crucial role in communicating the fitness lifestyle that influencers advocate, emphasizing values like health, beauty, and success (Goellner, 2008; Scott et al., 2017). Fitness influencers often use their bodies as avatars of brand identity, leveraging their physical appearance to promote products and services (Powers & Greenwell, 2017). While product-focused posts reflect influencers' preferred workout regimens, it is important to examine whether such product-centric content predominates in the fitness industry, or if more "product-less" content (focusing on exercises, motivation, and achievable routines) takes precedence. This distinction is significant as product-less content may be more relatable and easier for consumers to emulate. Additionally, within product-oriented fitness posts, it is essential to examine which types of products (whether diet-related or exercise-related) are most frequently endorsed. Therefore, the following research questions are posed:

RQ3: Do Instagram posts by fitness influencers primarily feature product-oriented regimens or product-less regimens?

RQ4: Among product-focused Instagram posts by fitness influencers, are diet-related products or exercise-related products more commonly featured?

Gender differences in fitness influencer sponsorships

Gender dynamics within the fitness influencer space may lead to differences in the types and volume of brand collaborations. Previous studies suggest that female influencers tend to have stronger parasocial connections with their audiences, which can enhance engagement and influence consumer behavior (Hudders & De Jans, 2021). Moreover, consumer-influencer gender congruence has been found to positively impact brand attitude and purchase intention, especially when the influencer and consumer share the same gender (Sá, 2020). Parker et al. (2018), found that gender expression in female athlete endorsers influenced perceptions of attractiveness, suggesting that female endorsers can be highly effective when endorsing sports-related products.

Given these insights, it is pertinent to explore if females in the online fitness industry are getting more opportunities to collaborate with fitness brands and thus, yielding more profits compared to male counterparts. Therefore, the following research question is posed:

RQ5: Do gender differences exist among Instagram fitness influencers in securing sponsorships for showcasing fitness products?

2. Methods

2.1. Unit of analysis

In this study, Instagram posts by fitness influencers will serve as our unit of analysis. We chose this approach because Instagram is an extremely visual platform, and its posts provide adequate quantity and quality of content to analyze. It must be noted that the unit of analysis, vis a vis, an Instagram post constitutes both the visual content as well as the accompanying text in the caption which may also include hashtags. The post may take the version of a still picture, a video-based reel, a still picture-collage based reel, a montage or a carousel. Similar research studies conducting content analysis on Instagram have selected the same unit of analysis for robust and generalizable results, ensuring high ecological validity (Ahrens et al., 2022; Willoughby et al., 2023). Likewise, Couto and Willoughby (2023) used Instagram posts as a unit of analysis to explore fitness and health perceptions among women consumers. The constructs of interest analyzed in the study are as follows:

2.1.1. Engagement rate per follower

A yardstick to gauge an online community's active contribution on the said influencer's social media posts in the form of likes, shares, comments, etc. as a proportion of the total number of people who constitute that online community or follow the said influencer (Rietveld et al., 2020; Arman & Sidik, 2019). The engagement rate per follower is employed because different influencers have varying numbers of followers, so this variable makes them comparable when gauging their relative engagement. This way micro-influencers can be equitably compared with macro-influencers regardless of their follower counts. The total number of likes and the total number of comments divided by the number of followers of the Instagram influencer constitute the engagement rate by likes and comments, respectively. Shares are not included since the information is not publicly available.

2.1.2. Self-efficacy

Instagram content that promotes consumer's ability and confidence and increases conviction to successfully execute behavior that achieves fitness-related goals (Voskuil & Robbins, 2015; Kashian & Liu, 2020). It may be promoted through social persuasion and vicarious fitness training or teaching (Kashian & Liu, 2020). Instagram content that features self-efficacy includes promotion, persuasion and motivation towards consumers to stay fit, eat healthy, exercise, adopt a healthy lifestyle or even provide confidence to be able to achieve appearance-oriented goals. Such content is aimed at building confidence and convincing consumers that fitness goals (they could be health-and-wellness or appearance-oriented) are "easy" to achieve or can be achieved. Content includes and is based on motivational themes that are positive in valence (Kashian & Liu, 2020). Questions that contain the term "motivation" or other self-efficacy related terms are not considered. Only statements or catchphrases that explicitly aim at motivating or persuading consumers are considered. Implied or inferential statements are not considered.

2.1.3. Product-involving regimen

Fitness regimens, health and wellness or diet regimes that involve the use, exhibition and/or consumption of aid to achieve fitness-related goals (Dessart & Duclou, 2019). Instagram posts by fitness influencers that involve or showcase the use of gym equipment like dumbbells, hip abductors, leg-press and other machines, as well as posts that show the use or consumption of diet-related products like protein shakes, whey, supplements, vegetables and fruits, meat or fish, or other oral or injection-based products that are aimed at enhancing fitness or achieving health and wellness, diet or fitness goals

(Angrish et al., 2024). Posts (visual and/or caption) that show the presence of any fitness-related tangible products. Such posts may be sponsored or unsponsored. If the influencer is promoting certain athleisure, athletic wear, training shoes, joggers, Jordans or watches to aid in the fitness process, such posts will also count as product-oriented ones. This means that for apparel and shoe products, either the product must be tagged, or the influencer must be talking about it for the post to be coded as 1. However, if an influencer is jumping on the ground or engaging in an exercise against the wall, the ground, grass or wall would not be considered “products”. All products to be considered are tangible products. Any programs, apps or YouTube videos mentioned must be tagged otherwise they are not considered. Intangible products are not considered.

2.1.4. Diet, exercise and wearable products

Fitness regimens, health and wellness or diet regimes that involve the use, exhibition and/or consumption of aid to achieve fitness-related goals (Dessart & Duclou, 2019). Instagram posts by fitness influencers that involve or showcase the use of gym equipment like dumbbells, hip abductors, leg-press and other machines are all exercise product-involving posts. Posts involving influencers wearing fitness or health watches, wristbands, pads, athleisure, training joggers and other active wear that they are also promoting are fitness wearable-involving posts. However, posts that show the use or consumption of diet-related products like protein shakes, whey, supplements, vegetables and fruits, meat or fish, or other oral or injection-based products that are aimed at enhancing fitness or achieving health and wellness are deemed diet-oriented.

2.1.5. Sponsored vs. unsponsored

Different brands and companies may approach influencers to collaborate with them and advertise their products or services on Instagram as a digital marketing strategy (Dave & Lipner, 2022). Such collaborations result in Instagram posts that are sponsored with a tag on the posts highlighting the brands or companies whose products are being advertised. Even in the online fitness industry, fitness diet or exercise-related products or services like gym instruction are tagged in the posts for the influencers and businesses to mutually benefit from positive consumer responses and purchases of the advertised entities. The sponsorship tag may be included in the caption or the visual itself. However, when influencers are seen in posts using products or showcasing fitness goods without the inclusion of a formal brand tag or company shoutout, such posts are deemed unsponsored.

2.2. Sampling procedure and sample characteristics

The sampling procedure to analyze Instagram posts (unit of analysis) involves employing purposive sampling techniques. Using Google search engine with keywords like “top 100 male fitness influencers”, we obtained an equal number of male and female fitness influencers operating on Instagram with at least 10,000 followers. An equal number of male and female fitness influencers (100 each) is selected to conduct a comparative content analysis with equitable representation of both genders. The latest five posts per Instagram account are selected for content analysis as long as they were posted on or before 30th August 2024. This is to ensure that there is a chronistic parameter to standardize the posting time of our unit of analysis. Only those fitness influencers are included whose source of income and fame is derived solely from Instagram. Thus celebrities, actors, sportsmen, athletes who derive their fame from other sources like TV, playing sport on the field, etc. are excluded. In total, a thousand Instagram posts (5 posts per influencer) are analyzed.

In terms of the sampling procedure, it must also be noted that if the lists of fitness influencers available online do not contain a hundred male and female influencers each, in order to reach the

required number of influencers to analyze, the "suggested" fitness influencers proposed by Instagram's algorithm will be included. These "suggested" influencers are presented by Instagram once the "following" list of already included fitness influencers are explored. Such a procedure to obtain a hundred fitness influencers for each gender is deemed valid because Instagram's algorithm operates in a way to "suggest" influencers who are comparable to the influencer whose "following" list is being explored. This is a sort of snowball sampling technique whereby already included influencers are used as points of contact to other influencers for inclusion in the sample. But the interesting notion about this sampling technique is its provision of comparable influencers through snowballing.

2.3. Coding procedure and reliability

Two coders coded the 500 Instagram posts after three sets of practice coding sessions to ensure high inter-coder reliability. To assess inter-coder reliability, about 20% of the sample constituting 100 Instagram posts was analyzed by both coders and then reliability tests were conducted. Results show that Krippendorff's alpha for product involvement was 1.0, 0.99 for Diet-related products, and 0.97 for exercise-related products. Self-efficacy and sponsorship in posts witnessed a perfect Krippendorff's alpha of 1.0.

3. Results

For *RQ1* and *RQ2*, a chi-square test and multivariate MANOVA were run, respectively. Results exhibit that there are no gender differences with regards to the frequency of posts that involve self-efficacy and themes of motivation for consumers, $\chi^2(1, N = 500) = 0.015, p = 0.901$. In addition, fitness content involving themes of motivation and higher self-efficacy does not yield a greater number of likes than content without self-efficacy, $F(1,498) = 2.728, p = 0.099$. Similarly, there are no statistically significant differences with regards to engagement by comments among posts with and without self-efficacy, $F(1,498) = 2.677, p = 0.102$.

With regards to product-oriented versus product less fitness regimes in the online industry, *RQ3*, *RQ4* and *RQ5* are explored. For this purpose, descriptive statistics are run followed by a chi-square to test gender differences. Results show that 84% ($N = 420$) of the content involves fitness products, out of which 28.8% ($N = 144$) is diet-related (like supplements, whey and healthy food) while 64.2% ($N = 321$) is exercise-related involving fitness or gym equipment, and 30.2% of the content involves wearables (like athleisure, active wear, fitness watches and wristbands). Around 50.4% of these Instagram posts involve sponsored fitness products, advertising fitness brands. With regards to sponsorships, posts by female fitness influencers ($N = 142$) take the lead compared to male counterparts ($N = 111$) and chi-square indicates that fitness brands prefer female influencers to advertise their products compared to male counterparts, with statistical significance, $\chi^2(1, N = 500) = 14.113, p = 0.001$. This is corroborated by the results of ANOVA that exhibit that female fitness influencer posts in general have a higher engagement rate in terms of both likes ($M = 3.70, SE = 0.614$) and comments ($M = 0.063, SE = 0.008$) than male counterparts (likes: $M = 2.24, SE = 0.670$), (comments: $M = 0.043, SE = 0.009$) with statistical significance, $F_{likes}(1,498) = 6.374, p = 0.024$ and $F_{comments}(1,498) = 6.877, p = 0.009$. It must also be noted here that sponsored content in general receives higher engagement by likes ($M = 3.64, SE = 0.701$) than content with unsponsored products ($M = 2.30, SE = 0.604$), $F(1,498) = 4.57, p = 0.033$.

4. Discussion

The findings from the results section offer significant insights into the research questions and hypotheses. The results of the study indicate that female fitness influencers post more content oriented towards self-efficacy compared to males. And it turns out that fitness content with themes of motivation

and self-efficacy receives more likes on Instagram. On social media platforms like Instagram, motivational and self-efficacy-oriented posts tend to resonate with followers because they not only showcase the influencer's journey but also imply that similar achievements are within reach for viewers, making the content more relatable and inspiring. Schouten et al. (2021) found that relatable, motivational content that emphasizes self-efficacy attracts greater engagement on Instagram, as followers are often drawn to content that encourages personal growth and frames fitness as an attainable and rewarding pursuit. So, incorporating self-efficacy in posts seems to boost engagement.

The results underscore the need for continued examination and critical evaluation of the portrayal of fitness influencers on social media platforms. By recognizing and addressing the gender disparities in objectification and sexualization, we can strive for a more equitable and inclusive online environment.

For RQ3 and RQ4, we found that about 81.8% of the fitness influencer content on Instagram involves fitness products. This means that most of the posts by fitness influencers showcase regimens that include some kind of product, such as fitness equipment or supplements, out of the product-involving Instagram posts by fitness influencers, around 28.6% are diet-oriented, focusing on things like supplements and healthy food. The remaining 71.4% are exercise-oriented, featuring fitness equipment, wearables, and resilience-builders. These results suggest that social media platforms, particularly Instagram, have evolved into spaces where consumerism and fitness culture intersect, allowing influencers to promote products that align with their fitness lifestyle. This aligns with recent research showing that influencers' endorsements of fitness-related products, such as equipment and dietary supplements, can significantly impact consumer behaviors (Tschirpigg, 2020).

Now, for RQ5, we found that there are gender differences among Instagram fitness influencers when it comes to receiving sponsorships for showcasing fitness products. Female fitness influencers were preferred by fitness brands to advertise their products compared to male influencers. This preference was supported by the higher engagement rates, in terms of likes and comments, that female influencers received compared to their male counterparts. These results align with Durau et al. (2022) who revealed that attractiveness of fitness influencers are critical factors influencing consumers' engagement and their intentions to exercise with influencers. Female fitness influencers are likely perceived as more attractive and thus contributing to higher engagement levels and making them appealing to brands seeking to maximize product visibility and consumer influence.

These results are important because they provide insights into the current landscape of fitness influencer content on Instagram. They contribute to our understanding of how fitness products are being showcased and marketed on social media platforms. These findings also highlight the influence of gender in the sponsorship and engagement dynamics within the fitness influencer industry.

5. Limitations

The present study analyzes the patterns of content elements found within Instagram posts of US-based fitness social media influencers. However, limitations must be considered in the research design process, as well as gaps that future research should assess.

The sampling procedure of our study raises a few questions about the generalizability of the findings. Firstly, our sample only analyzes Instagram fitness influencers based on the google search engine and its compilation of the top fitness influencers. This decision limited the robustness of our sample in that it may only be representative of the objectification that occurs in American and European societies and online communities since it was noticed that there was minimal Asian and Australian representation. It is known that differences in regional location and cultural beliefs or values often determine and affect the way individuals perceive and understand beauty and appearance messages such as objectification. As a result, if these results are representative of the presence of objectification in Instagram fitness influencers, it would only be true of those based in the Western World. Another

limitation that must be considered is the existence of inorganic or bot followers purchased by influencers on Instagram. If followers, likes or comments are inorganic, this would significantly skew data and lead to inaccuracies. In addition, some posts are “boosted” on Instagram by influencers to reach more audiences; this naturally increases the number of likes and comments on the boosted post. Such posts were generally excluded from the sample if their number of likes or comments were predominantly higher than those of other similar posts by the same influencer, however, human error may occur in detecting boosted posts.

Additionally, our original sampling technique was intended to be purposive sampling. The lack of randomization represents a less reliable measure and representation of the true nature of Instagram fitness influencers being perceived through a general user's perspective.

Gender in the study was seen through a surface-level lens. The gender variable was recorded through the assumption of traditional male and female presenting characteristics. No additional research was conducted to confirm the gender identity of each Instagram influencer within our sample, so this poses a limitation in the accuracy of comparing gender differences and similarities. In addition to the discussion of gender, the two coders of this present study all identify as women. The presence or absence of objectification and sexualization can be perceived very differently depending on the gender identification of the perceiver. This should be noted when considering the more “subjective” variables. However, coders adhered to the strict guidelines of the codebook and its definitions to ensure thorough and proper investigation of all variables.

6. Conclusion

As with many forms of communication, social media platforms hold great strength in how individuals view and interpret the world around them. The importance of this research comes from the need to understand how Instagram and other media platforms through repeated exposure, built-in systems of likes and comments, virality and overall social currency can reinforce gender stereotypes of objectification and impact body image ideals. Such media can shape narratives of how consumers perceive health and wellness and what it means to be “healthy.” The glamorization of gym culture, sponsorships from brands on sexualized content and lack of focus on diverse messaging can negatively impact society. Media then becomes a source of reinforcing non-inclusive regressive standards rather than being the beacon of sociocultural progressiveness. For future research, it would be interesting to explore platforms like TikTok and how varied their influence or consumer trends are. In all, it is imperative to acknowledge the globalization of social media and the latter's control over gender stereotype perpetuation and sociocultural norms.

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References

Ahrens, J., Brennan, F., Eaglesham, S., Buelo, A., Laird, Y., Manner, J., ... & Sharpe, H. (2022). A longitudinal and comparative content analysis of Instagram fitness posts. *International Journal of Environmental Research and Public Health*, 19(11): 6845. <https://doi.org/10.3390/ijerph19116845>

- Angrish, K., Oshana, D., & Gammage, K. L. (2024). Flex Friday: A content analysis of men's fitspiration on Instagram. *Body Image*, 48: 101651. <https://doi.org/10.1016/j.bodyim.2023.101651>
- Arman, A. A., & Sidik, A. P. (2019, November). Measurement of Engagement Rate in Instagram (Case Study: Instagram Indonesian Government Ministry and Institutions). *2019 International Conference on ICT for Smart Society (ICISS)*, Bandung, Indonesia (pp. 1–6). <https://doi.org/10.1109/ICISS48059.2019.8969826>
- Arora, A., Bansal, S., Kandpal, C., Aswani, R., & Dwivedi, Y. (2019). Measuring social media influencer index-insights from Facebook, Twitter and Instagram. *Journal of retailing and consumer services*, 49, 86–101. <https://doi.org/10.1016/j.jretconser.2019.03.012>
- Auxier, B., & Anderson, M. (2021). *Social media use in 2021*. Pew Research Center. <https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Basu, A., & Wang, J. (2009). The role of branding in public health campaigns. *Journal of Communication Management*, 13(1), 77–91. <https://doi.org/10.1108/13632540910931409>
- Campbell, C., & Farrell, J. R. (2020). More than meets the eye: the functional components underlying influencer marketing. *Business Horizons*, 63(4), 469–479. <https://doi.org/10.1016/j.bushor.2020.03.003>
- Couto, L., & Willoughby, J. F. (2024). #LoveYourBody: An Experimental Test of the Effects of Objectification and Body Appreciation Content on Instagram Fitness and Health Posts Among Young Women. *Health Communication*, 39(11), 2298–2306. <https://doi.org/10.1080/10410236.2023.2265647>
- Dave, L., & Lipner, S. R. (2022). Cross-sectional analysis of dermatologists and sponsored content on Instagram. *Journal of the American Academy of Dermatology*, 86(4), 923–925. <https://doi.org/10.1016/j.jaad.2021.03.054>
- Dessart, L., & Duclou, M. (2019). Health and fitness online communities and product behaviour. *Journal of Product & Brand Management*, 28(2), 188–199. <https://doi.org/10.1108/JPBPM-12-2017-1710>
- Dessart, L., Veloutsou, C., & Morgan-Thomas, A. (2015). Consumer engagement in online brand communities: A social media perspective. *Journal of Product and Brand Management*, 24(1), 28–42. <https://doi.org/10.1108/JPBPM-06-2014-0635>
- de Veirman, M., Cauberghe, V., & Hudders, L. (2017). Marketing through Instagram influencers: the impact of number of followers and product divergence on brand attitude. *International Journal of Advertising*, 36(5), 798–828. <https://doi.org/10.1080/02650487.2017.1348035>
- Devi, S., & Mahapatra, S. N. (2022). Social Media Influencers: Key to Influence Consumer's Intention to Purchase Fitness Products. *International Journal of Health Sciences*, 6(S1), 3181–3188. <https://doi.org/10.53730/ijhs.v6nS1.5373>
- Durau, J., Diehl, S., & Terlutter, R. (2022). Motivate me to exercise with you: the effects of social media fitness influencers on users' intentions to engage in physical activity and the role of user gender. *Digital Health*, 8. <https://doi.org/10.1080/20552076221102769>
- Durau, J., Diehl, S., & Terlutter, R. (2024). Working (out) with fitness influencers – Benefits for the fitness influencer, user health, and the endorsed brand: Key factors and the role of gender and brand familiarity. *Digital Health*, 10: 20552076241258393. <https://doi.org/10.1177/20552076241258393>
- Evans, W. D., Blitstein, J., & Hersey, J. C. (2008). Systematic review of public health branding. *Journal of Health Communication*, 13(8), 721–741. <https://doi.org/10.1080/10810730802487364>
- Garcia, M. B. (2024). Watching Exercise and Fitness Videos on TikTok for Physical Education: Motivation, Engagement, and Message Sensation Value. *Journal of Teaching in Physical Education*, 44(3), 537–550. <https://doi.org/10.1123/jtpe.2024-0084>
- Goellner, S. V. (2008). Deporte y Cultura Fitness: La Generización de Los Cuerpos Contemporáneos. *Revista Digital Universitaria*, 9(7), 3–11. <https://www.revista.unam.mx/vol.9/num7/art47/art47.pdf>
- Greene, B. L., Haldeman, G. F., Kaminski, A., Neal, K., Lim, S. S., & Conn, D. L. (2006). Factors affecting physical activity behavior in urban adults with arthritis who are predominantly African American and female. *Physical Therapy*, 86(4), 510–519. <https://doi.org/10.1093/ptj/86.4.510>

- Hudders, L., & De Jans, S. (2021). Gender effects in influencer marketing: an experimental study on the efficacy of endorsements by same- vs. other-gender social media influencers on Instagram. *International Journal of Advertising*, 41(1), 128–149. <https://doi.org/10.1080/02650487.2021.1997455>
- Janssen, L., Schouten, A. P., & Croes, E. A. (2022). Influencer advertising on Instagram: product-influencer fit and number of followers affect advertising outcomes and influencer evaluations via credibility and identification. *International Journal of Advertising*, 41(1), 101–127. <https://doi.org/10.1080/02650487.2021.1994205>
- Jorge, C. I. B. C. M. (2023). *What is the impact of influencer marketing through Instagram, by promoting fitness apparel, on female consumer behaviour?* (Master's thesis). Universidade Católica Portuguesa. <http://hdl.handle.net/10400.14/41314>
- Juszczak, W. (2023). *A dive into the social media fitness niche: How fitness influencer type relates to customer engagement* (Bachelor's thesis). University of Twente. https://essay.utwente.nl/fileshare/file/95474/juszczak_ba_bms.pdf
- Kashian, N., & Liu, Y. (2020). Posting exercise activity on social media for self-efficacy and well-being. *Southern Communication Journal*, 85(2), 73–84. <https://doi.org/10.1080/1041794X.2019.1658801>
- Kim, H. M., Kim, M., & Cho, I. (2023). Home-based workouts in the era of COVID-19 pandemic: the influence of Fitness YouTubers' attributes on intentions to exercise. *Internet Research*, 33(3), 1157–1178. <https://doi.org/10.1108/INTR-03-2021-0179>
- Lee, S., & Kim, E. (2020). Influencer marketing on Instagram: How sponsorship disclosure, influencer credibility, and brand credibility impact the effectiveness of Instagram promotional post. *Journal of Global Fashion Marketing*, 11(3), 232–249. <https://doi.org/10.1080/20932685.2020.1752766>
- Lim, X. J., Radzol, A. F., Cheah, J., & Wong, M. W. (2017). The impact of social media influencers on purchase intention and the mediation effect of customer attitude. *Asian Journal of Business Research*, 7(2), 19–36. <https://magscholar.com/joomla/images/docs/ajbr/ajbrv7n2/ajbr170035.pdf>
- Maldonado-González, M., González-Moreno, S. E., León-Alberca, T. B., & Torres-Toukoumidis, A. (2025). Fashion influencers mexicanas: caracterización del emprendimiento digital femenino. *Revista Venezolana de Gerencia*, 30(Especial 13), 711–725. <https://doi.org/10.52080/rvgluz.30.especial13.45>
- Murashka, V., Liu, J., & Peng, Y. (2021). Fitspiration on Instagram: Identifying topic clusters in user comments to posts with objectification features. *Health Communication*, 36(12), 1537–1548. <https://doi.org/10.1080/10410236.2020.1773702>
- Ogunleye, I. C. (2024). *Social media marketing: Engaging fitness consumers on Instagram* (Master's thesis). University of Gothenburg. <https://gupea.ub.gu.se/bitstream/handle/2077/83530/Ifeyanyi%20Claire%20Ogunleye%20TIA069%20VT24%20THESIS.pdf?sequence=1&isAllowed=y>
- Parker, H. M., Mudrick, M. T., & Fink, J. S. (2018). The Impact of Gender Expression on Female Athlete Endorser Effectiveness. *Sport Marketing Quarterly*, 27(4), 128–149. <https://journals.sagepub.com/doi/full/10.32731/smq.274.122018.05>
- Pilgrim, K., & Bohnet-Joschko, S. (2019). Selling health and happiness how influencers communicate on Instagram about dieting and exercise: mixed methods research. *BMC Public Health*, 19: 1054. <https://doi.org/10.1186/s12889-019-7387-8>
- Powers, D., & Greenwell, D. M. (2017). Branded fitness: Exercise and promotional culture. *Journal of Consumer Culture*, 17(3), 523–541. <https://doi.org/10.1177/1469540515623606>
- Rietveld, R., Van Dolen, W., Mazloom, M., & Worrying, M. (2020). What you feel, is what you like influence of message appeals on customer engagement on Instagram. *Journal of Interactive Marketing*, 49(1), 20–53. <https://doi.org/10.1016/j.intmar.2019.06.003>
- Rutter, R. N., Barnes, S. J., Roper, S., Nadeau, J., & Lettice, F. (2021). Social media influencers, product placement and network engagement: using AI image analysis to empirically test relationships. *Industrial Management & Data Systems*, 121(12), 2387–2410. <https://doi.org/10.1108/IMDS-02-2021-0093>
- Sá, S. P. (2020). *The impact of Influencer Marketing and Brand Gender on Purchase Intention* (Master's thesis). Universidade Católica Portuguesa. https://repositorio.ucp.pt/bitstream/10400.14/32115/1/00123_115_samuelsa-355018006.pdf

- Sallis, J. F., & Owen, N. (1999). *Physical activity and behavioral medicine*. Sage Publications. <https://doi.org/10.4135/9781452233765>
- Schouten, A. P., Janssen, L., & Verspaget, M. (2021). Celebrity vs. Influencer endorsements in advertising: the role of identification, credibility, and Product-Endorser fit. *International Journal of Advertisement*, 39(2), 258–281. <https://doi.org/10.1080/02650487.2019.1634898>
- Scott, R., Cayla, J., & Cova, B. (2017). Selling Pain to the Saturated Self. *Journal of Consumer Research*, 44(1), 22–43. <https://doi.org/10.1093/jcr/ucw071>
- Silva, M. J. de B., Farias, S. A. de, Grigg, M. H. K., & Barbosa, M. de L. de A. (2021). The body as a brand in social media: Analyzing Digital Fitness Influencers as Product Endorsers. *Athenea Digital. Revista de Pensamiento e Investigación Social*, 21(1), e–2614. <https://doi.org/10.5565/rev/athenea.2614>
- Sokolova, K., & Perez, C. (2021). You follow fitness influencers on YouTube. But do you actually exercise? How parasocial relationships, and watching fitness influencers, relate to intentions to exercise. *Journal of Retailing and Consumer Services*, 58: 102276. <https://doi.org/10.1016/j.jretconser.2020.102276>
- Statista. (2025). *Social media & user-generated content*. <https://www.statista.com/statistics/183585/instagram-number-of-global-users>
- Swani, K., & Labrecque, L. I. (2020). Like, comment, or share? Self-presentation vs. brand relationships as drivers of social media engagement choices. *Marketing Letters*, 31(2), 279–298. <https://doi.org/10.1007/s11002-020-09518-8>
- Tiggemann, M., & Zaccardo, M. (2018). ‘Strong is the new skinny’: A content analysis of #fitspiration images on Instagram. *Journal of Health Psychology*, 23(8), 1003–1011. <https://doi.org/10.1177/1359105316639436>
- Tschirpig, C. (2020). Influencer Marketing and its Impact on Consumer Behavior: Instagram influencer in the fitness industry. <https://urn.fi/URN:NBN:fi:amk-2020120927248>
- Uzunoglu, E., & Kip, S. M. (2014). Brand communication through digital influencers: Leveraging blogger engagement. *International Journal of Information Management*, 34(5), 592–602. <https://doi.org/10.1016/j.ijinfomgt.2014.04.007>
- Voskuil, V. R., & Robbins, L. B. (2015). Youth physical activity self-efficacy: A concept analysis. *Journal of Advanced Nursing*, 71(9), 2002–2019. <https://doi.org/10.1111/jan.12658>
- Vrontis, D., Makrides, A., Christofi, M., & Thrassou, A. (2021). Social media influencer marketing: A systematic review, integrative framework and future research agenda. *International Journal of Consumer Studies*, 45(4), 617–644. <https://doi.org/10.1111/ijcs.12647>
- Willoughby, J. F., Couto, L., Kang, S., Randall, J., Kirkpatrick, A. W., & Lee, D. K. L. (2023). An exploratory content analysis of the use of health communication strategies and presence of objectification in fitness influencer social media posts. *Health Communication*, 38(7), 888–895. <https://doi.org/10.1080/10410236.2023.2190248>
- Yuvarani, P., & Saravanan, M. B. (2021). The power of social persuasion–digital marketing for brands by the consumers using Instagram reel during the pandemic period 2020–21. *International Conference on Contemporary Media Persuasive Technology and Visual Communication*. Island Publishers India. https://mzu.edu.in/NAAC_DVV_2024/3.4.5/Mass%20Communication/141.pdf