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Research Paper

Social media as a driver of physical activity: A snapshot from sport sciences students

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ABSTRACT

Social media has become integral to daily life. During the COVID-19 pandemic, these digital tools enabled people to maintain physical activity at home despite restrictions, positively impacting public health. This study examines whether the trend of using social media to support physical activity has continued post-pandemic. A questionnaire was administered to 251 university sport sciences students to gauge their perceptions of social media's role in guiding and promoting physical activity. The findings indicate that participants engage with social media daily, viewing platforms such as YouTube, Instagram, and TikTok as valuable for visualizing and promoting physical activity. However, they report a lack of professional training in social media use at the university level. These results carry practical implications for health policymakers, educational institutions, faculty, students, and sport industry professionals, highlighting the importance of targeted training in social media management and the development of relevant policies to harness the potential of social media in promoting physical activity.

1. Introduction

Social media has become a ubiquitous tool in an increasingly digitized society, becoming part of people's everyday lives, enhancing online social interactions (Vilhunen & Väänänen, 2024; Wong et al., 2021). The COVID-19 pandemic further boosted their usage, providing valuable alternatives and solutions amid significant restrictions (González-Padilla & Tortolero-Blanco, 2020). For instance, social media facilitated the continuation of education through online modalities (Fuchs, 2022; Ridwan et al., 2023; Sengupta & Vaish, 2023), provided access to information on pandemic developments (Gottlieb & Dyer, 2020), and acted as catalysts for entrepreneurs to innovate by creating new business proposals or adapting existing ones to the new reality (Rahayu, Masduki, & Ellyanawati, 2023).

In the context of sport sciences, social media has been a valuable ally for sport managers and other stakeholders in the sport ecosystem during the pandemic (Hayes, 2022). For instance, social media enabled fans, athletes, and sport organizations to remain more connected than ever before (Su et al., 2020). Additionally, social media played a crucial role in disseminating messages that promoted greater health awareness and hygiene practices (Sharpe et al., 2020). The growth of platforms such as TikTok, Instagram, and YouTube has transformed interactions among various stakeholders in the sport industry (Abeza, 2023), impacting disciplines such as journalism (Lowes & Robillard, 2018), which now coexists with influencers and digital content creators. It also serves as a powerful digital tool among young people in contexts related to physical activity, fitness and health (Cox & Paoli, 2023; Turnock, 2024). From multiple ways, social media has become a main pillar for the commercialization and digitization of sport (Cao & Matsuoka, 2024) and a tool to foster healthy lifestyles (González-Serrano et al., 2024) in an era marked by decreasing levels of physical activity (Yin et al., 2024).

Given the potential of social media during the pandemic, it is unsurprising that several studies have explored the opportunities these digital tools offer in sport sciences (e.g., Hayes, 2022; Kim, 2022; Sui et al., 2022). Among these, López-Carril et al. (2021) examined the perceptions of sport science students during the first COVID-19

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lockdown in Spain regarding their social media usage habits and the possibilities social media offer for visualising or practicing physical activity. The results highlighted the significant role social media play in students' daily lives and the potential students, especially women, see in social media for promoting or performing physical activity. This is further supported by Maher et al. (2021), who noted that physical activity is positively associated with college students' well-being, regardless of the stressful life events experienced during the COVID-19 pandemic. However, this perspective was shaped in a unique context, with students confined to their homes and uncertain about the pandemic's future. Now that the pandemic has passed, it is valuable to explore whether these perceptions have changed.

The primary objective of this paper is to replicate the work of López-Carril et al. (2021), two years after the onset of the COVID-19 pandemic. To deepen our understanding of the phenomenon under study, we draw on the Uses and Gratifications Theory (U&G) (Katz et al., 1973; Rubin & Perse, 1987). Although U&G was originally developed to investigate motivations related to news consumption (Rubin & Perse, 1987), subsequent research has adapted its principles to examine motivations and gratifications in social media use (Alhabash & Ma, 2017; Chen & Peng, 2023; Falgoust et al., 2022; Florenthal, 2019; Halaszovich & Nel, 2017). This evolution allows us to apply U&G as a lens through which to interpret our findings in the context of physical activity and sport. Rather than employing U&G as a comprehensive theoretical model with measured constructs, we use it as an interpretive framework to contextualise our descriptive findings on sport sciences students' social media usage. Within this framework, individuals are understood to actively engage with social media to fulfil various needs and desires, including the desire to participate in physical activity.

The findings of this study may be particularly relevant for sport sciences educators and policymakers, as they highlight the value of integrating social media into the classroom, guided by students' perspectives, training needs, and the potential implications for their professional futures. Additionally, health professionals and sport managers may find these results useful for leveraging social media's potential to enhance public health and provide innovative approaches to physical activity through digital platforms.

2. Literature review

2.1. Social media and why it is important for sports sciences students to learn how to use them for professional purposes

Defining social media is challenging, with a wide range of definitions existing in the literature (Hull & Abeza, 2021). Nevertheless, these internet-based applications (Kaplan & Haenlein, 2010) are characterized by their unequivocal social and interactive components (Jensen, 2015). Social media encompasses a large and varied group of platforms that allow entities and individuals to visualize, generate, and share content individually or collaboratively, and in real-time or asynchronously (López-Carril et al., 2019). Consequently, we find platforms oriented towards video (e.g., YouTube and TikTok), images (e.g., Instagram and Pinterest), messaging (e.g., WhatsApp, Telegram, WeChat), video gaming (e.g., Discord, Twitch) or the professional sphere (e.g., LinkedIn, ResearchGate). Regardless of each social media's primary function or use, another characteristic is the constant evolution of their features and functions, becoming increasingly complex platforms that integrate with one another (Rhee et al., 2021). For instance, a fitness influencer can create a workout video on TikTok and then share it on LinkedIn, YouTube, and WhatsApp, reaching a more targeted niche.

Among all social media, it is convenient to focus on fitness or health apps due to their specificity in physical activity and health (Angosto et al., 2020). As these platforms constantly evolve and diversify, those initially designed to monitor physical activity (e.g., Strava, Runtastic, Sworkit) increasingly incorporate more social and interactive functions, transforming them into true social media. Wang and Collins (2021) identify five main functional themes: Education, Tracking, Social, Gamification, and Motivation, each with sub-features. This greater diversity, along with the expanding use of smartphones, wearables, and other digital mobile devices, makes this specific type of social media of great interest to sport managers and health policymakers (Štajer et al., 2022). Indeed, wearable technology and mobile exercise apps represent significant niches in the sport industry, ranking first and seventh, respectively, in trends for 2024 according to the American College of Sports Medicine (Newsome et al., 2024).

The literature indicates that social media are highly relevant to the sport industry (e.g., Abeza, 2023; Filo et al., 2015). Professionals and stakeholders in the sport ecosystem (e.g., sport managers, coaches, athletes, media outlets) use social media daily. Indeed, employers in the sport industry expect future sport professionals to understand how to use social media from a professional perspective (Dixon et al., 2015; Pate & Bosley, 2020). Given this importance, it is necessary for future sport industry professionals to learn how to use social media proficiently. In this sense, sport sciences education programs represent a suitable environment for providing such training, particularly because mastering social media can enhance student employability and career outcomes (Habets et al., 2021; Pena et al., 2022) or support entrepreneurial endeavors (Troise et al., 2022). One illustration of this is the rise of fitness or sport influencers who offer their services through social media.

Therefore, it is valuable to gain insight into how future physical activity professionals use social media and where they have learned to do so. In this regard, studies such as Rigamonti et al. (2020) have examined, within a European context, how sport sciences students use social media, highlighting the significance of platforms like Facebook, WhatsApp, and YouTube in enhancing and supporting their studies. Furthermore, Popovic et al. (2021) investigated the attitudes and preferences of sport sciences students at the University of Novi Sad (Serbia) regarding social media use in their studies, finding that Viber, WhatsApp, and Facebook were the most commonly used platforms for academic purposes. However, social media have evolved substantially within a short period, which calls for an understanding of sport sciences students' initial level of social media usage before teaching them to use these tools in a professional manner. This approach allows educators to adapt their proposals to students' existing knowledge. Consequently, the following research question is posed:

RQ.1. What are the social media usage patterns of sport sciences students?

2.2. Social media for health improvement through physical activity

During the leisure constraints of the COVID-19 pandemic, such as gym closures and restrictions on outdoor activities during severe lockdowns, social media tools became a solution that allowed citizens to stay active at home (Hayes, 2022; López-Carril et al., 2021). For example, social media platforms enabled sharing workout routines and generating online communities that support and encourage physical activity among users (Chiu et al., 2024; Davies et al., 2024). This was particularly crucial as levels of physical activity among the population, especially among the younger demographic, had decreased, posing a significant health risk (Newland & Bowers, 2022). Consequently, the development of diseases such as obesity, diabetes, and cardiovascular conditions has become a global health concern. In response to the health risks of a sedentary lifestyle, social media acted as a lifeline, helping to mitigate some of the negative effects of the pandemic (So & Kwon, 2024).

One of the most successful social media platforms for viewing and engaging in physical activity is YouTube. During the pandemic, home-based workouts, whether broadcast live or streamed, allowed citizens to maintain their physical activity levels while at home (Kim, 2022; Kim & Kim, 2023; Liu et al., 2022; So & Kwon, 2024; Sui et al., 2022). Indeed, authors such as Durau et al. (2022) and Li et al. (2023) identify fitness influencers as important agents in motivating people to be physically active. Similarly, other platforms like Instagram and TikTok were and

continue to be used by influencers and physical activity professionals to share exercise routines that citizens can perform at home (Picazo-Sánchez et al., 2022). In this respect, the power of short videos, such as those on TikTok, to engage younger audiences is particularly noteworthy (O'Donnell et al., 2023).

Beyond studies focused on specific social media platforms, others have explored the potential of social media as a platform for broader physical activity proposals. For example, López-Carril et al. (2021) investigated the perceptions of a group of sport sciences students during the first lockdown of the pandemic in Spain (from March to May 2020). The results confirmed that social media effectively promotes healthy sport habits, with YouTube and Instagram being the most successful platforms for such purposes, and a higher usage by women compared to men. Recently, Shirotriya et al. (2024) examined the views of a group of students in India between February and May 2021, a period when the ensuing waves of COVID-19 impacted different countries variably. The findings highlight that these students engage with physical activity through social media, inspired by the content of sport stars and other creators.

Given the rapid growth of the digital sport fitness ecosystem (Newland & Aicher, 2022) and the increased use of social media among adolescents and young adults (Murari et al., 2024), it seems that social media are an effective tool for generating proposals for physical activity and healthy habits that positively impact public health (Buja et al., 2024; González-Serrano et al., 2024). Now that pandemic restrictions have ended, it is valuable to assess whether the positive trends towards social media use, reported by López-Carril et al. (2021) and Shirotriya et al. (2024) during the pandemic's worst moments, have been sustained. Consequently, the second research question of this study is posed:

RQ.2. What are the perceptions of sport sciences students regarding the use of social media for viewing and engaging in physical activity?

Furthermore, in the study by López-Carril et al. (2021), gender was found not to influence the use of social media for viewing physical activity but did have a statistically significant effect on using it for performing physical activity, with women scoring higher than men. To determine if this difference still exists, the third research question is proposed:

RQ.3. Does the variable of gender influence the use of social media for viewing and engaging in physical activity among sport sciences students?

To interpret the responses to the research questions posed, this study draws on the U&G. The U&G framework posits that individuals actively select and consume media outlets or content to fulfil specific needs (Rubin & Perse, 1987). In the context of social media, users choose particular platforms (e.g., YouTube, Facebook, TikTok) based on the unique ways each platform meets their individual needs (Alhabash & Ma, 2017; Chen & Peng, 2023). These needs often stem from psychological, emotional, and pleasurable drivers that can encourage engagement with physical activity content (Baek et al., 2014). For instance, participation in physical activity can address needs for relatedness, achievement, and personal growth, mirroring how users engage with online platforms to satisfy similar motivations (Alhabash & Ma, 2017; Chen & Peng, 2023). Moreover, the inherently social nature of many physical activities fosters engagement, reinforcing the relevance of the U&G framework in understanding behaviour in both offline and online environments (Wang et al., 2012).

3. Methodology

3.1. Sample

The study sample consisted of 251 students enrolled in a Physical Activity and Sport Sciences degree program at two Spanish public universities where the first and last authors of this study were teaching. Among the participants, 192 were men (76.5 %) and 59 were women (23.5 %), with a mean age of 22.22 years ($SD = 3.89$).

3.2. Research instrument

A two-part questionnaire was used to address the two research questions. To address the first question, socio-demographic information was collected (e.g., age, gender, nationality) along with ad hoc items related to the participants' social media usage patterns (e.g., frequency of use, social media access devices, purposes of use, and places where they have learned to use social media both academically and personally).

To address the second research question, the *Lockdown Physical Activity Practice Through Social Media* (LPAPSM) scale developed by López-Carril et al. (2021) was included in the questionnaire. This scale showed adequate psychometric properties, tested through an exploratory factor analysis that demonstrated the unidimensionality of the scale. Subsequently, the model fit was ensured through the value of the root mean square of residuals (RMSR) and the gamma index of goodness-of-fit (GFI), as suggested by the literature (Tanaka & Huba, 1989). In addition, the Kaiser-Meyer-Olkin value and Bartlett's test of sphericity were considered to check sample suitability and the relationship between items, assuming sufficient correlation to conduct this type of analysis. Finally, considering Cronbach's alpha, the scale also showed adequate internal consistency (Hair et al., 2006). This unidimensional, eight-item scale requires participants to rate statements on a five-point Likert scale, with 1 being "strongly disagree" and 5 being "strongly agree." The scale includes items designed to assess sport sciences students' perceptions of using social media to visualize physical activity (e.g., "Social media can help make new sporting disciplines, training proposals, or exercises visible") and to practice it (e.g., "Sharing my achievements through social media motivates me to keep training"). It also measures the perceived impact of the pandemic on social media use (e.g., "Social media is more important in promoting physical activity and sport during the lockdown than before").

3.3. Data collection procedure

This study is a quantitative, descriptive, and exploratory cross-sectional study employing non-probabilistic convenience sampling. The questionnaire was administered online via the LimeSurvey platform, with each participant using their own laptop to complete it. Data collection took place between February and March 2022, prior to the start of their class sessions, in the presence of the researchers, ensuring a controlled environment where researchers were present to address any questions or concerns.

No compensation or incentives (e.g., gift cards, extra credit) were provided for completing the questionnaire. All participants voluntarily completed the questionnaire in accordance with the principles of the Declaration of Helsinki (World Medical Association, 2013). Prior to participation, each participant signed an informed consent form, which provided information about the study's aims, how their data would be managed to ensure confidentiality and anonymity, and their right to withdraw from the study at any time.

3.4. Statistical analysis

For the analysis of the data collected in this study, SPSS version 25 was used. First, a descriptive analysis was performed to examine the questions with dichotomous responses, aiming to determine the proportions according to gender for the various variables analyzed. Second, a descriptive and inferential analysis was conducted using independent *t*-tests to compare the results of the scale variables based on gender. Gender variable was included because the study by López-Carril et al. (2021) found significant gender differences in the use of social media for physical activity, with women showing higher scores than men.

4. Results

4.1. Sociodemographics and patterns of social media use

Firstly, information was gathered on social media habits in private life, as well as the devices most frequently used for this purpose (see Table 1). Among men, the highest percentage indicated that they "almost always" use social media in their private life (47.4 %), while among women, the majority (57.6 %) reported that they "always" use social media in their private life. Regarding the type of device used to access social media, the smartphone is the most commonly used device for both men and women, with usage rates of 97.9 % and 98.3 %, respectively.

Subsequently, the study aimed to determine where participants had learned to use social media. Both men (83.9 %) and women (78 %) predominantly stated that they had learned to use social media on their own. Secondly, 15.1 % of men and 18 % of women reported learning to use social media with friends. Finally, the lowest percentage corresponds to the university setting, where only 1 % of men and 3.4 % of women reported learning about social media use at university.

When participants were asked about the main purpose for which they use social media, the most frequent responses for both men and women were to contact friends (40.1 % and 42.4 %, respectively) and to have fun (38 % and 35.6 %, respectively) (see Table 2). The lowest percentages among men were for using social media for university purposes (0.5 %) and for gossip (0 %). For women, the lowest percentages were for using social media for work and university purposes (both 1.7 %) and for news searches (0 %).

The next part of the analysis examines participants' perceptions of social media use (see Table 3). Firstly, when asked whether they believe people use social media too much, 98.4 % of men and 100 % of women agreed. When asked if they spend too many hours on social media, 72.4 % of men and 86.4 % of women affirmed this. Finally, when asked if they consider themselves addicted to social media, 44.3 % of men and 39 % of women admitted to having an addiction.

4.2. Social media to promote and engage in physical activity

The next section of results focuses on the use of social media to promote and engage in physical activity. The first point of interest is whether participants view physical activity proposals through social media. In this regard, 93.8 % of men ($n = 180$) and 93.2 % of women ($n = 55$) indicated that they view such content on social media. Following this, the analysis assessed which social media platforms are used to view physical activity proposals (see Fig. 1). According to the data, the most used platforms by men, in order of preference, are Instagram (92.2 %), YouTube (85 %), and TikTok (57.8 %). For women, the most used platforms are YouTube and Instagram (both 94.9 %), followed by TikTok (62.7 %). After performing the chi-square test to compare the use of social media to visualize physical activity proposals according to gender, no significant differences were found in any case ($X^2 > 0.05$).

Regarding participants' opinions on whether social media helps people stay physically active at home, almost 100 % of respondents agreed. Specifically, 99.5 % of males ($n = 191$) and 96.6 % of females ($n = 145$) agreed. However, when asked if they use social media to engage in physical activity at home, these percentages decrease. Only 59.9 % of males ($n = 115$) and 49.2 % of females ($n = 29$) affirmed that they do physical activity at home through social media. As shown in Fig. 2, men primarily use YouTube (69.8 %), Instagram (50 %), and to a lesser extent, TikTok (17.7 %) for this purpose. Similarly, women also use YouTube (66.1 %), Instagram (40.7 %), and TikTok (11.9 %). Additionally, a chi-square test was conducted to examine gender-based differences in the use of social media for engaging in physical activity at home. Results showed no statistically significant differences between genders across social platforms, with the exception of Twitch, which women reported using more frequently ($X^2 < 0.05$).

Next, the purposes of using social media in relation to physical activity were examined (see Table 4). For men, the majority use social media to follow physical activity influencers (62 %). Other common purposes include following training proposals from other people or entities (58.9 %) and sharing videos of themselves training (53.1 %). For women, the most common purposes are following physical activity influencers (64.4 %), doing workouts proposed by others (54.2 %), and sharing workout proposals from other people or entities (42.4 %).

Finally, we present the results from the López-Carril et al. (2021) LPAPSM scale (see Table 5). For men, the highest mean scores were in the items related to social media facilitating the promotion of physical activity during the pandemic (4.58 ± 0.60) and helping to make new disciplines or training proposals visible (4.41 ± 0.70). The lowest ratings for men were in the items related to sharing achievements on social media as a motivation to continue training (3.17 ± 1.43) and viewing videos of other people as a motivation to train (3.68 ± 1.18). For women, the highest ratings were for social media facilitating the promotion of physical activity during the pandemic (4.63 ± 0.55) and the increased importance of social media in promoting physical activity since the pandemic (4.49 ± 0.68). The lowest ratings for women were for sharing achievements as a motivation to continue training (3.36 ± 1.36) and watching videos of others training as a motivation to train (3.92 ± 0.97). Comparing the means of the statements according to gender, significant differences ($p \leq 0.05$) were found only in the item related to the daily use of social media since the pandemic began, where women reported a significant increase in social media use compared to men.

5. Discussion

In a digital era where social media increasingly permeates daily life, this study explores the role of social media in the career development of future sport industry professionals and as tools to promote or facilitate physical activity. Unlike the study by López-Carril et al. (2021), conducted during Spain's first lockdown in early 2020, and Shirotriya et al. (2024), conducted in India between February and May 2021, this study was conducted after social constraints had eased. Additionally, building on previous studies on social media use (e.g., Alhabash & Ma, 2017; Chen & Peng, 2023; Falgoust et al., 2022; Florenthal, 2019; Halaszovich & Nel, 2017), this study applies the U&G framework to interpret how

Table 1
Frequency of social media use in private life and most used device.

Frequency of private use of social media	Almost never	Occasionally	Almost always	Always
Men	1 (0.05)	25 (13)	91 (47.4)	75 (39.1)
Women	0 (0)	3 (5.1)	22 (37.3)	34 (57.6)
Total	1 (0.04)	28 (11.2)	113 (45)	109 (43.4)
What is the device you use most to access social media?	**Smartphone**	**Tablet**	**Desktop PC**	**Laptop**
Men	188 (97.9)	0 (0)	1 (0.05)	3 (1.6)
Women	58 (98.3)	0 (0)	0 (0)	1 (1,7)
Total	246 (98)	0 (0)	1 (0.04)	4 (1.6)

Note: data expressed in frequencies with percentage values in brackets.

Table 2
Main purpose for which participants use social media.

What do you use social media for?	Labour end	University purposes	Search for information	Gossip	Have fun	Family contact	Contact friends	News
Men	5 (2.6)	1 (0.5)	16 (8.3)	0 (0)	73 (38)	10 (5.2)	77 (40.1)	8 (4.2)
Women	1 (1.7)	1 (1.7)	2 (3.4)	4 (6.8)	21 (35.6)	5 (8.5)	25 (42.4)	0 (0)
Total	6 (2.4)	2 (0.8)	18 (7.2)	4 (1.6)	94 (37.5)	15 (6)	102 (40.6)	8 (3.2)

Note: data expressed in frequencies with percentage values in brackets.

Table 3
Perception of social media use.

	Do you think people spend too many hours on social media?		Do you think you spend too many hours on social media?		Do you think you may have a social media addiction?	
	Yes	No	Yes	No	Yes	No
Men	189 (98.4)	3 (1.6)	139 (72.4)	53 (27.6)	85 (44.3)	107 (55.7)
Women	59 (100)	0 (0)	51 (86.4)	8 (13.6)	23 (39)	36 (61)
Total	248 (98.8)	3 (1.2)	190 (75.7)	61 (24.3)	108 (43)	143 (57)

Note: data expressed in frequencies with percentage values in brackets.

social media functions in a post-social-constraint context, providing insights into its evolving role in visualising and promoting physical activity.

Addressing the first research question, the results of this study highlight how social media continues to play a major role in the lives of sport sciences students, largely due to the accessibility afforded by smartphones. Consistent with the findings of López-Carril et al. (2021), participants perceive that both they and society at large spend excessive amounts of time on social media, with many even suspecting they may have a social media addiction. This underscores the importance of educators recognizing the potential downsides of social media, which include addiction, cyberbullying, misinformation, and the reinforcement of stereotypes (Murari et al., 2024; So & Kwon, 2024). To address these challenges, integrating specific training on the safe and effective use of social media into sport sciences curricula is vital to help students mitigate these risks. Furthermore, as highlighted by Gómez-Ortiz et al. (2023) and Recio-Moreno et al. (2023), students should be trained to develop exercise content grounded in scientific evidence to avoid promoting potentially harmful practices prevalent in the social media accounts of fitness influencers and other physical activity-related profiles. Promoting critical digital education is essential to equip students with the skills needed to navigate these challenges effectively. Students must also be aware of the risks associated with social media, particularly misinformation and non-scientifically based physical activity practices, which can have adverse effects on individuals. Therefore, fostering digital literacy and critical thinking is crucial when engaging with sport sciences content online. Additionally, as prospective content creators, students should be encouraged to prioritise producing accurate and evidence-based content, ensuring their contributions positively impact their audiences.

Despite the pandemic-driven digitalization push (González-Padilla & Tortolero-Blanco, 2020), it is notable that very few participants in this study reported learning to use social media at university, with most indicating they had acquired these skills on their own. Additionally, most participants do not utilise social media for labour purposes. From these findings, we interpret that there may be a social media training gap in universities regarding its professional application, which could be addressed to better align education with industry demands, as advocated by authors such as Pate and Bosley (2020). This mismatch is paradoxical given that, as Abeza (2023) notes, social media is fundamental to the sport ecosystem. Considering the importance of social media for their professional futures, why do sport sciences educators not leverage it more as a pedagogical tool? Why not capitalize on students' natural inclination toward and familiarity with social media? One approach to integrating social media into the classroom is to build on the

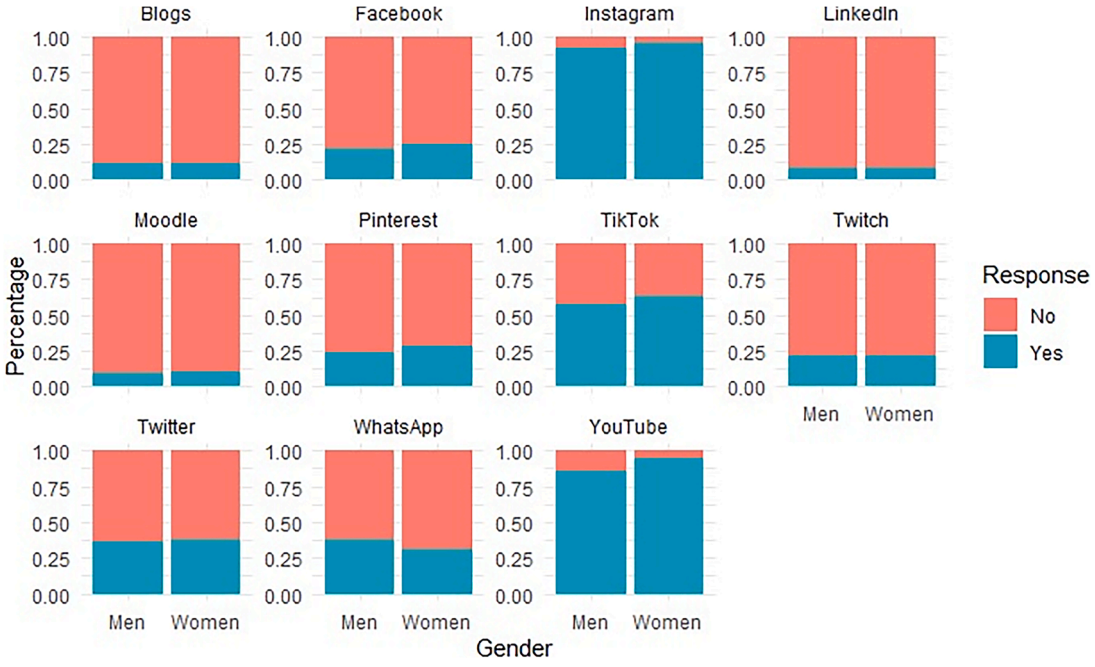

Fig. 1. Social media platforms used for viewing physical activity proposals.
Note: Only social media platforms with at least 5 % usage among men or women are displayed in this figure. Platforms below this threshold were excluded for clarity.

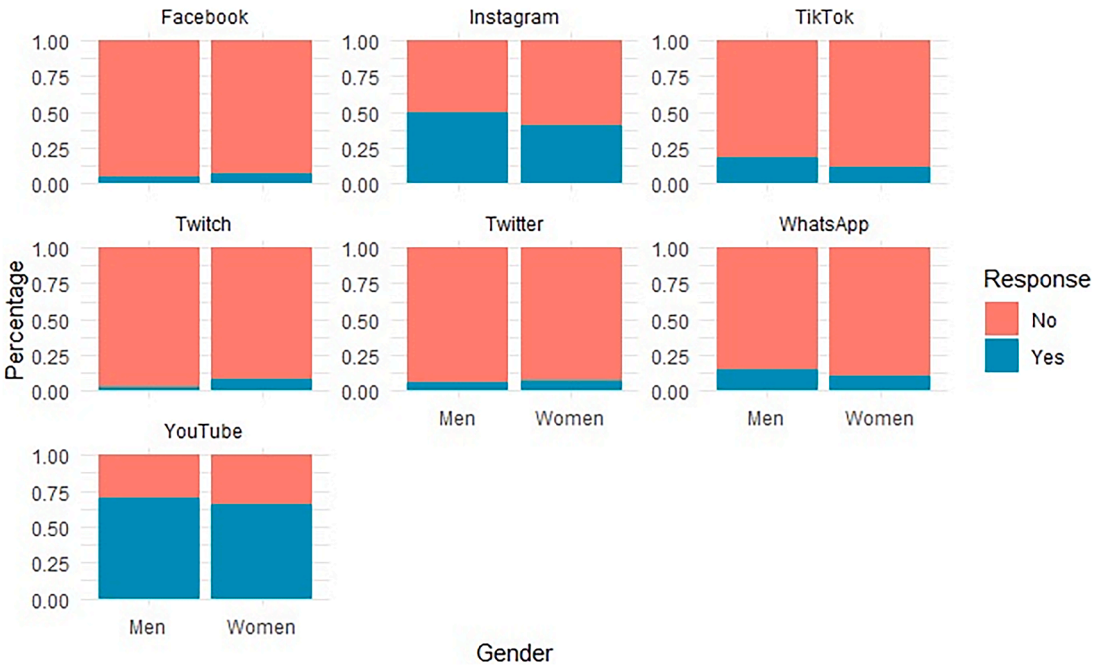

Fig. 2. Social media platforms used to do physical activity.
Note: Only social media platforms with at least 5 % usage among men or women are displayed in this figure. Platforms below this threshold were excluded for clarity. The only exception is Twitch, where female usage exceeds 5 % while male usage remains below this threshold.

Table 4
Purpose of social media use in relation to physical activity.

		Utility	
Statement		**Yes**	**No**
Perform training proposed by another person/entity	Men	113 (58.9)	79 (41.1)
	Women	32 (54.2)	27 (45.8)
	Total	145 (57.8)	106 (42.2)
Share another person's/entity's training proposal	Men	87 (45.3)	105 (54.7)
	Women	25 (42.4)	34 (57.6)
	Total	112 (44.6)	139 (55.4)
Share a training proposal made by me	Men	66 (34.4)	126 (65.6)
	Women	17 (28.8)	42 (71.2)
	Total	83 (33.1)	168 (66.9)
Share photo of me before, during or after training	Men	78 (40.6)	114 (59.4)
	Women	19 (32.2)	40 (67.8)
	Total	97 (38.6)	154 (61.4)
Share a video of me doing a training session	Men	102 (53.1)	90 (46.9)
	Women	23 (39)	36 (61)
	Total	125 (49.8)	126 (50.2)
Follow physical activity influencers	Men	119 (62)	73 (38)
	Women	38 (64.4)	21 (35.6)
	Total	157 (62.5)	94 (37.5)

Note: data expressed as frequencies with percentage values in brackets.

momentum of online and hybrid teaching methodologies (Ridwan et al., 2023), using social media to create enriching teaching-learning environments (Fuchs, 2022; Sengupta & Vaish, 2023) where students can learn to use social media for professional purposes. Mastering platforms such as YouTube, Instagram, and TikTok can also open pathways to self-employment, a compelling motivation that, from the U&G perspective, supports incorporating these digital tools into students' education. In this regard, studies such as Gómez-Ortiz et al. (2023) highlight promising approaches for integrating social media into education. However, it is crucial to recognise that some faculty members may feel they lack the necessary expertise to incorporate social media effectively into their teaching practices (Lebel et al., 2015; Manca & Ranieri, 2026). To address this challenge, universities should prioritise providing specific training to enhance educators' digital skills, enabling them to use these tools confidently and effectively within their curricula. Additionally, fostering interdisciplinary collaborations between sport sciences faculty and departments with stronger expertise in social media, such as communication, marketing, or educational technology, can further support this integration. Engaging professionals from the sport industry to deliver targeted training is another valuable strategy to enhance faculty capabilities in leveraging social media for educational purposes.

Addressing the second research question, this study confirms that sport sciences students use social media to view and engage with

Table 5
Rating of the importance, use, and perceptions of social media to visualize or conduct physical activity.

Item	Gender	M	*F*	*DT*	*P*
My daily use of social media has increased since the pandemic began	Men	3.89	1.79	1.05	.05
	Women	4.19		.86	
Watching a video of other people doing physical activity motivates me to train	Men	3.68	6.67	1.18	
	Women	3.92		.97	
Sharing my achievements through social media motivates me to keep training	Men	3.17	.44	1.43	
	Women	3.36		1.36	
Social media can help make new sporting disciplines, training proposals, or exercises visible	Men	4.41	.05	.70	
	Women	4.41		.72	
I have learned about new disciplines, training proposals, or exercises through social media	Men	4.17	.33	.95	
	Women	4.17		.81	
Social media makes it easier to promote physical activity during the pandemic	Men	4.58	.82	.60	
	Women	4.63		.55	
Social media are more important in the promotion of physical activity and sport than before the start of the pandemic	Men	4.36	2.62	.87	
	Women	4.49		.68	
After the pandemic I will continue to use social media to follow training proposals	Men	4.06	.02	1,03	
	Women	4.10		1.00	

Note: men ($n = 192$); women ($n = 59$); items from the LPAPSM scale of López-Carril et al. (2021).

physical activity content, aligning with the findings of López-Carril et al. (2021) and Shirotriya et al. (2024). Although social media usage surged during lockdowns, as Hayes (2022) notes, these trends have persisted post-pandemic. However, unlike the findings of López-Carril et al. (2021), our results related with the answering of the third research question indicate that, with one exception, gender does not influence engagement with or viewing of physical activity via social media. This suggests a trend toward gender equalization in how participants perceive the value of social media, which future studies should further investigate. Nonetheless, social media remains a valuable tool for physical activity professionals, with direct implications for public health. Given young people's affinity for social media, leveraging these platforms could improve public health by counteracting the decline in physical activity levels reported by authors such as Newland and Bowers (2022) and Yin et al. (2024). Social media can motivate young people to share their physical activities with friends and follow physical activity influencers who serve as role models, as reflected in this study's results. In essence, social media can foster healthier lifestyle habits. In this regard, the U&G lens helps us understand that the pursuit of better health is another significant motivation driving individuals to use social media, especially for those without access to in-person sport activities. Through social media, they can find free options to incorporate into their routines.

Regarding specific social media platforms, the results align with those of López-Carril et al. (2021) and Shirotriya et al. (2024), identifying YouTube and Instagram as the primary platforms used by sport sciences students to view or engage with physical activity content. From the U&G perspective, these results can also be understood in light of YouTube, Instagram, and TikTok being among the world's leading platforms in terms of active users (Dixon, 2024). Participants in this study report primarily using social media for friendship-related and entertainment purposes, which can indirectly connect to professional motives—even if students are not fully aware of it—as they later acknowledge using these platforms to consume content relevant to their field. This suggests that educators should invest effort in raising awareness about the potential of social media as a resource for their professional future.

Analysing the results specifically within the context of physical activity and sport, the popularity of YouTube for viewing or engaging in physical activity is unsurprising, as other studies (e.g., Chiu et al., 2024; Kim, 2022; Sui et al., 2022) emphasize the niche market that fitness influencers have cultivated on this streaming platform. Instagram follows a similar trend, as educational experiences like those described by Gómez-Ortiz (2023) demonstrate, where integrating Instagram as a learning tool for sport sciences students helps them acquire valuable skills for their professional futures. Additionally, TikTok, the third most-used platform among study participants for viewing or engaging in physical activity, warrants attention. Its rise during the pandemic (Su et al., 2020) and its appeal to a younger demographic open up new possibilities. In summary, the results of this study highlight the power of video (a key feature of YouTube, Instagram, and TikTok) as a preferred format for participants to view or engage in physical activity through social media. Therefore, sport industry professionals should prioritize this format to create and launch new initiatives that capture public attention.

5.1. *Practical implications and suggested lines of action*

Guided by the findings of this study, the following practical implications and lines of action are proposed for application and knowledge transfer:

- For health policymakers: In a digital society facing high rates of sedentary lifestyles, social media's effectiveness in promoting physical activity suggests the need for policies and action measures to facilitate engagement in physical activity and sport through digital tools. Campaigns can support companies and freelancers dedicated to health promotion via social media, effectively reaching the younger population, who are particularly inclined towards the digital ecosystem.
- For educators and university institutions in sport sciences: It is recommended to incorporate social media into classroom dynamics to teach students how to use these platforms professionally. This training would enable students to design and launch training programs, exercise suggestions, and other physical activity initiatives via social media. Specific courses can be developed (e.g., MOOCs) or this knowledge can be integrated into existing curricula.
- For sport sciences students: Given the reported lack of university-level training in using social media to promote or conduct physical activity, students should seek additional training through other avenues (e.g., online courses, seminars, following influencers). Mastering social media is a valuable skill that can aid them in launching ventures and advancing professionally.
- For health trainers, fitness centres, and other sport industry professionals: Considering the popularity of social media among the population, it is recommended to develop online training avenues in addition to traditional physical activity offerings. Utilizing social media can diversify business models and reach niche populations that are currently underserved.

5.2. Limitations and potential research directions

This study has certain limitations that should be considered when interpreting the results and defining their scope. However, these limitations also provide valuable directions for future research. First, the sample consists exclusively of Spanish sport sciences university students, with an unbalanced gender distribution that is not representative of the broader population; thus, the results are not generalizable. Second, this study captures a snapshot of a specific post-pandemic moment in a particular group of sport sciences students. These individuals, due to their academic focus and interests, may be predisposed to engage with content related to social media usage for visualising or engaging in physical activity. This potential bias could influence the findings. Future research should aim to collect data from students in other fields of study to identify similarities and differences in social media usage patterns—both in general daily use and in relation to physical activity and sport. Future studies should aim to include larger, gender-balanced samples and, where possible, compare students' perceptions across different geographic regions to investigate potential cultural differences. Third, although the López-Carril et al. (2021) scale used in this study demonstrates strong psychometric properties, it is not grounded in explicit theoretical constructs such as those derived from U&G Theory. As a result, our study does not develop an extensive U&G scale measuring all gratification factors (e.g., social, entertainment, information-seeking). Instead, we use U&G as an interpretive framework to understand the motivations behind social media use for physical activity, while acknowledging that future studies could systematically operationalise U&G constructs for deeper analysis. Nevertheless, by applying U&G, we provide a preliminary understanding of the motives behind social media use for physical activity among sport science students. Finally, as this study is quantitative and largely descriptive, aiming to provide a snapshot (cross-sectional view) of social media use by sport sciences students during a specific post-pandemic moment. To delve deeper into where and how students have learned to use social media from a professional perspective, or how they perceive their social media training—or lack thereof—future research could benefit from qualitative or mixed-method approaches. These methodologies could offer complementary perspectives and provide a richer understanding of this topic.

6. Conclusions

Relying on the U&G perspective, this research has focused on two aspects linked to the use of social media in the sport sciences field. Firstly, it explored the patterns of social media use among future professionals in the sport industry. Secondly, it delved into their perceptions of the opportunities social media offer for promoting and performing physical activity. The results highlight how social media play a major role in the daily lives of future industry professionals, who recognize that social media are an integral part of their lives. Moreover, despite the easing of social restrictions following the pandemic, participants—regardless of gender—continue to view social media as a valuable platforms for promoting and implementing physical activity initiatives. In this regard, YouTube, Instagram, and TikTok emerge as the preferred platforms for these purposes. Therefore, social media could serve as a valuable digital tool in promoting healthy lifestyles, with potential integration into health policies, especially to reach younger populations.

Interestingly, very few participants in this study reported learning how to use social media at university, with the majority indicating that they had acquired these skills independently. Although we did not explicitly ask about formal training in social media within their academic programmes, these findings suggest that universities may not sufficiently address the professional use of social media in their curricula. In a digital age where individuals are closely connected to their mobile devices and screens, it is essential for future sport industry professionals to learn how to leverage social media's potential in promoting physical activity initiatives. Consequently, it is strongly recommended that sport sciences educators incorporate specific training on the professional use of social media within the context of physical activity, equipping future sport professionals to meet the demands of an increasingly digitalised society.

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Data statement

The datasets are available upon reasonable request from the corresponding author.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the authors used ChatGPT (by OpenAI) and Paperpal for proofreading and enhancing the readability of the text. After utilizing these tools, the authors reviewed and edited the content as necessary and took full responsibility for the final version of the publication.

CRediT authorship contribution statement

Samuel López-Carril: Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Conceptualization. **Deukmook Bae:** Writing – review & editing, Visualization, Data curation. **Tiago Ribeiro:** Writing – review & editing, Supervision, Funding acquisition. **Mario Alguacil:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation.

Declaration of competing interest

The authors declare no conflicts of interest that could have influenced the design, execution, or reporting of this research.

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