

SOCCKER ATHLETES IN CYBERSPACE: digital social networks and human development in high performance

ATLETAS DE FUTEBOL NO CIBERESPAÇO: redes sociais digitais e desenvolvimento humano no alto rendimento

Fernando de Lima Fabris¹

Adriane Beatriz de Souza Serapião²

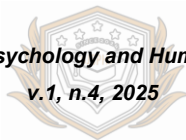
Abstract

The growing presence of digital social networks has transformed how soccer athletes communicate, learn, and construct their public image. This study aimed to analyze the influence of these platforms on the daily lives, sports performance, and psychological development of professional and under-20 athletes. Using a mixed-methods approach with a sequential exploratory design, the research was conducted in two complementary phases: qualitative and quantitative. The first phase involved semi-structured interviews with five professional players, including athletes from clubs in the 1st, 2nd, and 3rd divisions of the São Paulo State Championship and one athlete with experience in São Paulo clubs and current international play. The second phase consisted of an *online* questionnaire (QRSD) applied to 50 players from professional and under-20 categories of São Paulo clubs, with a descriptive and comparative frequency analysis across 40 variables. The findings showed that social networks are widely used for communication, technical learning, and personal promotion, but they also represent sources of distraction, psychological pressure, and emotional vulnerability. Based on the Bioecological Theory of Human Development, the digital environment is understood as an integral microsystem in athletes' lives, influencing their interpersonal relationships and self-regulation processes. Cyberspace emerges as a symbolic field for identity construction and sports knowledge, while the principles of Sport Psychology help explain the effects of social networks on motivation, concentration, and mental health. It is concluded that digital social networks play a structural role in the athletic and personal trajectories of players, functioning as spaces for visibility, learning, and self-expression, yet requiring emotional and educational competencies for balanced use. It is recommended that clubs and coaching staffs implement digital literacy and psychological support programs, promoting healthy online engagement and contributing to the athletes' integral human and athletic development.

Keywords: Digital Social Networks; Soccer; Professional Athletes; Human Development; Sport Psychology; Mental Health.

¹ Mestre em Desenvolvimento Humano e Tecnologias. Universidade Estadual Paulista "Júlio de Mesquita Filho" (UNESP), Rio Claro – SP, Brasil. E-mail: fabrislf@hotmail.com; <http://lattes.cnpq.br/2555850023197800>.

² Doutora em Ciências Biológicas. Universidade Estadual Paulista "Júlio de Mesquita Filho" (UNESP), Rio Claro – SP, Brasil. E-mail: adriane.serapiao@unesp.br; <http://lattes.cnpq.br/6997814343189860>.



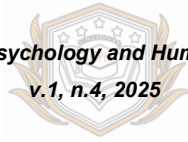
Resumo

A crescente presença das redes sociais digitais transformou a forma como os atletas de futebol se comunicam, aprendem e constroem sua imagem pública. Este estudo teve como objetivo analisar a influência dessas plataformas no cotidiano, no desempenho esportivo e no desenvolvimento psicológico de atletas profissionais e Sub-20. De abordagem de métodos mistos com desenho sequencial exploratório, a pesquisa foi conduzida em duas fases complementares: qualitativa e quantitativa. A primeira envolveu entrevistas semiestruturadas com cinco atletas profissionais (incluindo atuantes em clubes das 1ª, 2ª e 3ª divisões do Campeonato Paulista e um atleta com passagem por clubes paulistas e atuação internacional), analisadas segundo a Análise de Conteúdo Temática. A segunda consistiu em um questionário *online* (QRSD) aplicado a 50 atletas das categorias profissional e Sub-20 de clubes paulistas, com análise descritiva e comparativa das frequências em 40 variáveis. Os resultados evidenciaram que as redes sociais são amplamente utilizadas para comunicação, aprendizagem técnica e promoção pessoal, mas também constituem fontes de distração, pressão psicológica e vulnerabilidade emocional. A partir da Teoria Bioecológica do Desenvolvimento Humano, compreende-se que o ambiente digital integra o microsistema do atleta, influenciando suas relações interpessoais e processos de autorregulação. O ciberespaço emerge como um campo simbólico de construção de identidade e saber esportivo, enquanto os fundamentos da Psicologia do Esporte permitem entender os efeitos das redes na motivação, concentração e saúde mental. Conclui-se que as redes sociais digitais ocupam papel estruturante na trajetória esportiva e pessoal dos atletas, funcionando como espaços de visibilidade, aprendizado e expressão, mas exigindo competências emocionais e educativas para o uso equilibrado. Recomenda-se que clubes e comissões técnicas implementem programas de compreensão digital e suporte psicológico, promovendo uma gestão saudável da presença *online* e contribuindo para o desenvolvimento humano e esportivo integral.

Palavras-chave: Redes Sociais Digitais; Futebol; Atletas Profissionais; Desenvolvimento Humano; Psicologia do Esporte; Saúde Mental.

1 INTRODUCTION

Sport plays a central role in contemporary society, with its visibility massively amplified by the media, transcending cultural and geographical barriers (Merino *et al.*, 2024). This interdependence between sport and the media generates significant revenues (Strachan *et al.*, 2023), but also increases the pressure on performance. In this context of high performance, performance transcends physical preparation and is deeply influenced by psychological variables (Clemente-Suárez *et al.*, 2022). Looking at sports psychology is essential to understanding how internal and external factors, such as motivation, self-confidence, and stress management, directly impact athletes (Weinberg; Gould, 2017).

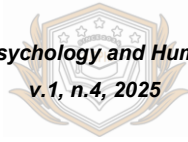


Parallel to traditional media pressure, technological evolution has brought society into cyberspace (Castells, 2010), a fluid digital environment that transforms social interactions. In football, this transition, although initially met with resistance, is now a central phenomenon. The lives of athletes, technical committees and fans have been profoundly impacted by the growing integration of digital tools, demanding new professional and personal adjustments. While technical innovations such as VAR (Dyer, 2022) have changed the game, it is digital social networks that are reshaping the lives of players.

The Bioecological Theory of Human Development (Bronfenbrenner, 2002) stands out, in which the digital environment becomes part of the athlete's microsystem. Cyberspace functions as a new field of direct interactions, mediating the player's relationships with peers, family, club, and the public, actively influencing their processes of development, self-regulation, and identity construction. The central phenomenon of this new microsystem is digital social networks. They transcend entertainment, becoming essential platforms for career management, personal marketing, and direct communication with fans (García-Ramos *et al.*, 2021). On the one hand, they offer unique opportunities for promotion and personal branding; on the other hand, this increased visibility carries significant risks.

Excessive exposure, vulnerability to criticism, cyberbullying, and invasion of privacy emerge as new and powerful stressors. These factors directly affect athletes' psychological well-being, anxiety, and ability to concentrate (Strachan *et al.*, 2023; Merino *et al.*, 2024). The ease of creating anonymous profiles increases the sense of impunity (Fink, 2020), making the intersection between mental health and digital life a structuring aspect of performance in modern sport.

Despite advances in research on sports psychology and media, there is still a shortage of studies addressing the impact of social media from a bioecological perspective, especially considering differences in age and competitive maturity. Therefore, this article aims to investigate the factors influencing the use and impact of digital social media by high-performance football players, analysing the positive and negative implications of this practice in the sporting context. It seeks to understand how interaction with cyberspace influences not only athletic performance but also the overall well-being of athletes, contributing to reflections on the management of their personal and professional lives in an increasingly predominant digital environment.



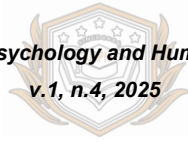
2 PROCEDURES AND METHODS

This study is characterised as mixed-method research with an exploratory sequential design (Creswell; Clark, 2017), integrating qualitative and quantitative approaches in a complementary manner to deepen understanding of the phenomenon under investigation, namely the use and impact of digital social networks in the practice and daily lives of football players. The project was approved by the Research Ethics Committee of the Institute of Biosciences of the São Paulo State University “Júlio de Mesquita Filho” (UNESP), under opinion No. 5,881,939, in accordance with the rules of Resolution No. 466/2012 of the National Health Council (CNS). The research was conducted in two interdependent phases, articulated in such a way as to allow for initial qualitative exploration and subsequent confirmation and quantitative expansion of the findings.

The first phase, which was qualitative and exploratory in nature, aimed to understand the athletes' perceptions and experiences regarding the impact of digital social networks on their sporting and emotional routines. Five professional athletes participated. Of these, four were affiliated with clubs in the 1st, 2nd, and 3rd divisions of the São Paulo State Championship at the time of the interview, and one professional athlete had played for São Paulo clubs and internationally for a prominent regional club in the country where he plays.

The data were obtained through individual semi-structured interviews, conducted in person and online, based on a semi-structured script that addressed topics such as media exposure, emotional self-control, public feedback, and the relationship between performance and digital visibility. The interviews were recorded, transcribed in full, and submitted to Thematic Content Analysis (Bardin, 2018), enabling the identification of analytical categories and subcategories. These results served as the basis for the development and validation of the instrument used in the quantitative stage.

The second phase, which was quantitative and descriptive in nature, aimed to verify patterns and differences in the use of social media among athletes from different competitive categories. The “Instrument for Investigating the Use of Digital Social Networks in Football” (QRSD) (Fabris; Serapião, 2025) was used, consisting of 40 variables distributed across cognitive, behavioural, and emotional dimensions related to the use of digital media.



Fifty athletes belonging to clubs in the 1st and 2nd divisions of the São Paulo State Championship, members of the professional and Under-20 categories, participated. The questionnaire was administered online, anonymously and voluntarily, ensuring the confidentiality of information and compliance with ethical principles.

Data analysis consisted of a descriptive and comparative evaluation of the absolute and relative frequencies of responses between categories. This systematic observation allowed us to identify behavioural trends, generational differences, and psychosocial aspects related to the athletes' digital presence, without the use of inferential analyses or advanced statistics.

The results of the two phases were subsequently triangulated, allowing the quantitative findings to be related to the qualitative evidence obtained in the interviews. This integration broadened the interpretative depth of the research, enabling a more comprehensive understanding of how digital social networks influence the psychological, social, and professional dimensions of football. Triangulation, therefore, consolidated the internal validity of the study and strengthened the coherence between the empirical and theoretical levels of the investigation.

3 RESULTS

3.1 Qualitative results

The research involved five professional players who agreed to be interviewed. After transcribing and pre-analysing the data, it was possible to categorise five main axes (Bardin, 2018) to organise and deepen the expected findings: Motivation for Using Social Networks (Table 1); Emotional and Psychological Impact (Table 2); Influence of Social Media on Sports Practice (Table 3); Dynamics and Culture of Social Media in the Club and Among Colleagues (Table 4); and General Perception of the "Football and Social Media" Phenomenon (Table 5). The results are presented according to the categorised axes, detailing each player's relationship with these perspectives.

The athletes' reports indicate that social media is widely used for communication, especially with family members, which is the main motivation for its use, as shown in Table 1. Players such as P1, P3, and P4 highlight the use of platforms for leisure and entertainment. However, player P2 presents a more comprehensive

use, utilising social media not only for communication, but also as a tool for interaction with the technical committee and match analysis.

Player P5, in turn, places social media in a professional context, using it to promote his career. These data demonstrate that the use of social media is deeply integrated into the daily practices of athletes, serving both personal and professional needs and playing a multifaceted role in their routine.

Table 1 - Motivation for Using Social Networks

Player	Reported Aspect	Main Quote	Interpretation
P1	Motivation to maintain closeness with fans	'The relationship between football and social media is very close... it's great because it brings fans and people around the club closer to the players'.	The main motivation for using social media is to maintain proximity and interaction with fans.
P2	Visibility and promotion of club activities	'In football, clubs have professionals who manage all of the club's social media accounts... social media is widely used to promote players, signings, dismissals...'	Social media is used as a tool for visibility and institutional communication for the club.
P3	Main use for entertainment	'I use it a lot. Mainly for Instagram, yes. More as a form of entertainment, right? It's not professional, so to speak'.	The motivation is primarily leisure and entertainment, not professional use.
P4	Use for communication and leisure time	'...I mainly use it to communicate with my family... It's one of the things that takes up most of my free time, you know? When I'm not training... I'm on my mobile phone'.	Its use is focused on family communication and as a main leisure activity during moments of rest.
P5	Strategic use for professional growth	'It's a very important tool... so, it depends on each person... using it to your advantage, social media is extremely important...'	The use of social media is seen as a strategic tool for the professional growth of athletes.

Source: Elaborated by the author, 2025

In Table 2, all players recognise that social media can have negative impacts. P3 and P4 reported personal experiences of discomfort, while P2 highlighted emotional problems outside of sport, and P5 mentioned episodes of racism. Despite these negative aspects, positive effects are also recognised, such as the praise received after matches and motivational interactions. Players such as P1, P3, and P5 perceive social media as a space for positive emotional reinforcement, although they recognise

the need to develop strategies to deal with criticism and adverse situations. P5, in particular, admits that distractions caused by social media can directly affect focus and performance on the field.

In general, athletes demonstrate a certain awareness of the emotional and psychological challenges involved in using these platforms, emphasising the importance of filtering information and staying focused on what is really relevant to their sporting and personal lives.

Table 2 - Emotional and Psychological impact

Player	Reported Aspect	Main Quote	Interpretation
P1	Positive reinforcement of confidence	'These positive comments are nice and make me feel more confident.'	Compliments and positive feedback on social media are perceived as a factor that strengthens self-confidence.
P2	Negative impact of external sources	'...people sometimes use social media to send "subtle hints" to other people... there's a lot of fake news, a lot of misleading stuff, right... people use it to do bad things, asking for money to steal, so I think that's negative.'	The negative emotional impact does not come from performance, but from interpersonal conflicts, scams, and fake news in the digital environment.
P3	Risks of exposure on social media	'I think that, in fact, footballers... need to be careful with social media. Exposure can have a negative influence.'	Exposure on social media can affect players emotionally, negatively impacting their public image.
P4	Need for self-control and focus	'Social media is a powerful tool that can help or hinder a player's career... self-control and internal motivation are essential.'	Self-control is essential for dealing with social media in a way that does not harm the athlete's emotional health.
P5	Distractions on social media impacting performance	'Social media is extremely important, but if someone wants to stay where they are, they want to be even more distracted... go ahead.'	Excessive use of social media can cause distractions that affect the player's focus and productivity.

Source: Elaborated by the author, 2025

Social media has proven to be an essential tool for athletes' learning, motivation, and professional promotion. In Table 3, players such as P1, P2, and P5 use these platforms to access technical and tactical content that contributes to the improvement

of their skills. In addition, all athletes emphasise the importance of social media as a means of personal marketing, allowing them to disseminate content and build a solid public image, which is essential for new professional opportunities.

P4 and P5 highlighted the use of inspirational content, such as videos of other athletes, which boost confidence and performance before training sessions and competitions. However, negative impacts, such as criticism and disrespectful comments, require filtering strategies to maintain focus on sporting activities, as evidenced by P3. Misinterpretation of posts was also mentioned as a risk that could damage players' reputations, which was an additional concern for P3 and P4 (Table 3).

Table 3 - The Influence of Social Media on Sports

Player	Reported Aspect	Main Quote	Interpretation
P1	Technical learning (specific to the position)	'As a goalkeeper, I follow many pages related to goalkeepers, technical and tactical training, and how the great goalkeepers... train. So, sometimes, I use social media to learn and gain knowledge.'	Networks are a tool for study and technical improvement, allowing athletes to model their training based on global benchmarks.
P2	Positive impact on the promotion of sporting activities	'Clubs have professionals who manage all of the club's social media accounts. They record behind-the-scenes footage, post-match interviews... in short, social media is widely used to promote athletes.'	Social media has a positive impact, allowing athletes' activities and routines to be shared.
P3	Precautions to avoid negative impact on your career	'You have to be careful, because if you use it badly, it can harm your career... exposure can have a negative influence.'	Inappropriate use can negatively affect an athlete's career, especially in relation to their public image.
P4	Social media as an ally, but with caution	'Social media can help or hinder a player's career... self-control and internal motivation are essential.'	Social media can be beneficial, but balance and self-control are necessary to avoid damaging your career.
P5	Training content source	'[During the pandemic] I started following some... players... And then they have channels, they're posting their training sessions... That might be helping a little bit here, putting together some training sessions for me and my friends too...'	Social media serves as a source of practical knowledge, offering videos and training methods that can be replicated.

Source: Elaborated by the author, 2025

In Table 4, the reports indicate that social media plays an important role in the dynamics of football clubs, both in terms of interaction between athletes and in terms of their relationship with the public and administrative management. P1 highlighted the control over shared content in Brazil, aimed at protecting the image of clubs and avoiding controversy, in contrast to the less intense approach in Slovakia.

This cultural contrast suggests a distinct maturity in the use of social media, with Brazilian clubs demonstrating a more advanced level of professionalisation. P2 pointed out the universality of social media use, highlighting its importance for personal marketing and the integration of platforms into the administrative management of clubs, especially larger ones, which hire professionals dedicated to content production.

P3 and P4 indicated the disparity between larger and smaller clubs in terms of support and guidance on the use of social media, noting that larger clubs offer clear guidelines, while smaller ones neglect this issue, which can negatively affect athletes, especially younger ones.

Table 4 - Dynamics and Culture of Social Networks in the Club and Among

Player	Reported aspect	Main Quote	Interpretation
P1	Culture of restriction and control	'When I played for Ituano, there was control over what we could say in interviews. Some things were restricted; others were allowed'.	There is an internal control dynamic within clubs regarding what can be shared on social media.
P2	Professionalization of social media management	'Clubs have professionals who manage all social media... they record videos, post content... social media is widely used to promote athletes'.	Clubs have a professional structure to manage their social media, reflecting the importance of these platforms.
P3	Disparity in institutional support	'I have been to clubs that have a press office concerned with providing guidance on the use of social media, and other smaller clubs that do not have this support'.	The culture of digital media guidance depends directly on the structure of the club, with a gap in smaller teams.
P4	Self-control necessary to maintain focus	'A player's success on social media is related to their ability to stay focused and avoid harmful distractions'.	The internal culture requires players to stay focused and avoid distractions on social media.
P5	Culture of distraction and impact on performance	'...he had quite a few workmates who would spend practically the whole	He notes that his peers' excessive use of games/social media,

		night playing... And then I send players who end up not performing so well in training the next day'.	especially at night, affects their sleep and impairs their training performance.
--	--	---	--

Source: Elaborated by the author, 2025

In Table 5, the reports suggest that social media is indispensable in the context of modern football, functioning as an essential tool for professional promotion and image management. However, athletes also identified challenges, such as excessive use of these platforms, which can affect rest and performance in training, as warned by P5.

In addition, the lack of adequate support from some clubs is an important gap that needs to be addressed, as it can negatively impact the psychological well-being of athletes, as highlighted by P3 and P4. Although the benefits of social media are clear, especially in terms of visibility and motivation, it is crucial that clubs adopt clearer policies and educational strategies to balance the positive aspects with the risks.

Table 5 - General Perception of the Phenomenon “Football and Social Media”

Player	Reported aspect	Main Quote	Interpretation
P1	The closeness between players and supporters	‘The relationship between football and social media is very close... it's great because it brings fans and people around the club closer to the players’.	Social media is seen as an important tool for strengthening the relationship between players and fans.
P2	The indispensability of social media in football	‘In football, clubs have professionals who manage all social media... it is essential for promoting players, signings and dismissals’.	Social media is indispensable for the visibility and management of football, both for athletes and clubs.
P3	Caution and moderation in use	‘Social media is a powerful tool that can help or hinder a player's career... self-control and internal motivation are essential’.	The use of social media requires caution and moderation so that it does not negatively impact the player's career.
P4	Lack of support and need for guidance	‘In the day-to-day running of the club, we do not have specific support for dealing with social media... It is important that athletes, especially younger ones, receive appropriate guidance...’	The athlete notices a gap in the guidance offered by the club and sees the need for support, especially for younger players.

P5	Strategic use of social media for progress	‘Social media is extremely important... use it to your advantage, social media is very valuable...’	Social networks are seen as valuable, but it is necessary to use them strategically for personal progress.
-----------	--	---	--

Source: Elaborated by the author, 2025

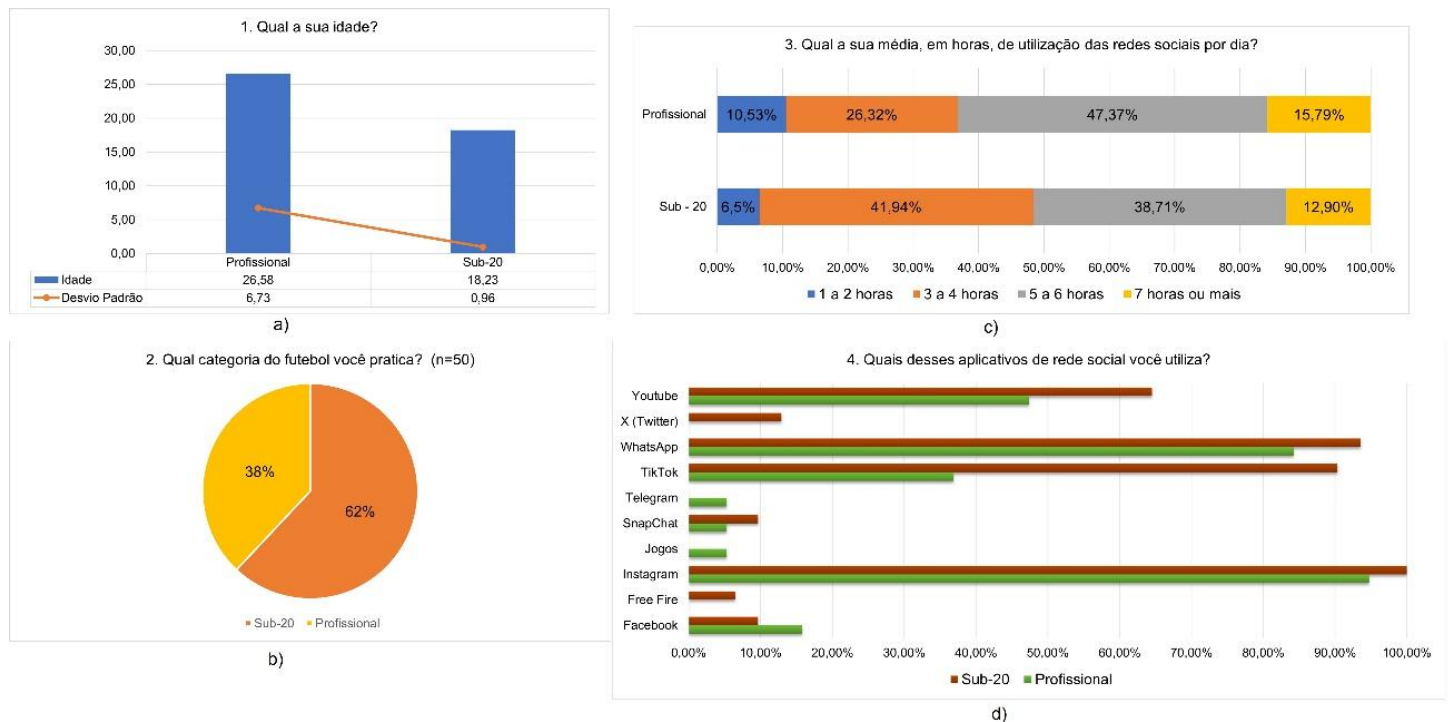
3.2 Quantitative results

This chapter presents a comparative analysis of data from the QRSD questionnaire (Fabris; Serapião, 2025), completed by 50 high-performance athletes, divided into the Professional (n = 19) and Under-20 (n = 31) categories. To facilitate comparison, responses to Likert scale questions (using a score of 1=Never, 2=Rarely, 3=Often, 4=Always, or according to specific legend) were consolidated into thematic tables, showing mean (M) and standard deviation (SD). The results of binary questions (Yes/No, Agree/Disagree) and multiple-choice questions are illustrated through figures and analysed textually.

3.2.1 Respondent Profile

The demographic characteristics of the participants are shown in Figure 1. The analysis confirms the expected age difference between the groups (Figure 1a): the Professional category has an average age of M = 26.58 years (SD = 6.73), while the Under-20 category has an average age of M = 18.23 years (SD = 0.96). Figure 1b details the composition of the sample, which is mostly made up of Under-20 athletes (62%), followed by Professional athletes (38%).

Figure 1 – Respondent profile



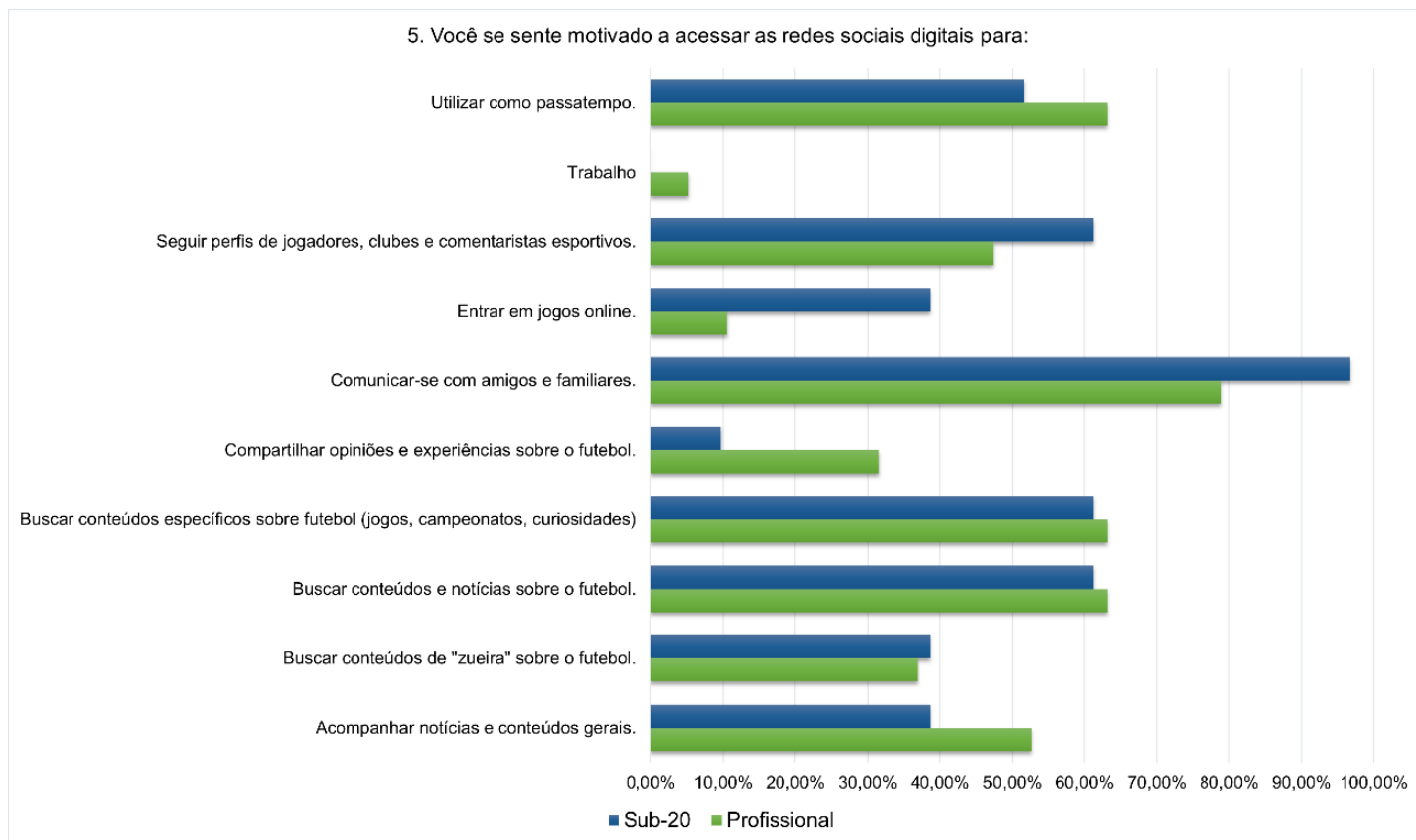
Source: Elaborated by the author, 2025

The daily use of social media, illustrated in Figure 1c, is high in both groups, with 63.16% of professionals and 51.61% of under-20s reporting more than 5 hours of access per day. Figure 1d indicates that Instagram and WhatsApp are the almost universally preferred platforms. The main difference observed is TikTok, a platform used by 90.32% of Under-20 athletes, compared to only 36.84% of Professional athletes, reflecting generational trends in media use (Statista, 2024).

3.2.2 Motivations and Personal Usage Behaviour

The motivations for using social media reveal a mix of social, professional, and entertainment needs (Williams; Larkin, 2023). Figure 2 details the main motivations for accessing these platforms.

Figure 2 - Motivations for accessing digital social networks.



Source: Elaborated by the author, 2025

As shown in Figure 2, the main motivation for both groups is 'Communicating with friends and family.' Generational differences appear next: the Under-20s (38.7%) use social media significantly more for 'Playing online games' than the Professionals (10.5%), reflecting a pattern of use more focused on entertainment and socialising with peers (Auxier; Anderson, 2021). Professional players, on the other hand, demonstrate a more focused use on 'Work' (10.53%) and 'Sharing opinions and experiences about football' (31.58%). The frequency of specific personal use behaviours is presented in Table 6.

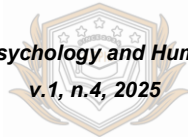
Table 6 - Frequency of personal use behaviors

Comportamento (Questão)	Sub-20 (<i>n</i> =31) <i>M</i> ± <i>DP</i>	Profissional (<i>n</i> =19) <i>M</i> ± <i>DP</i>
6. Acompanha notícias sobre campeonatos	3,16 ± 0,73	3,68 ± 0,48
7. Busca aprender novas técnicas <i>online</i>	3,19 ± 0,70	3,26 ± 1,05
8. Compartilha momentos pessoais	2,06 ± 0,68	2,21 ± 0,86
9. Compartilha momentos do futebol	2,71 ± 0,69	3,00 ± 1,15
10. Busca inspiração em outros atletas	3,06 ± 0,68	2,84 ± 1,12
31. Participa de desafios/tendências virais	1,87 ± 0,71	1,63 ± 0,60
32. Interage (comenta) em outros perfis	1,94 ± 0,61	2,21 ± 1,03
33. Acompanha a vida privada de jogadores	2,45 ± 0,81	2,58 ± 1,02

Source: Elaborated by the author, 2025

The data in Table 6 indicate that the Professional group follows news (Q6) more frequently (*M* = 3.68) than the Under-20 group (*M* = 3.16) and shares more football moments (Q9) (*M* = 3.00) than the Under-20 group (*M* = 2.71), indicating a more career-focused use and personal brand building (Geurin, 2023). Professionals (*M* = 2.21) also interact more by commenting on other profiles (Q32) than Under-20s (*M* = 1.94).

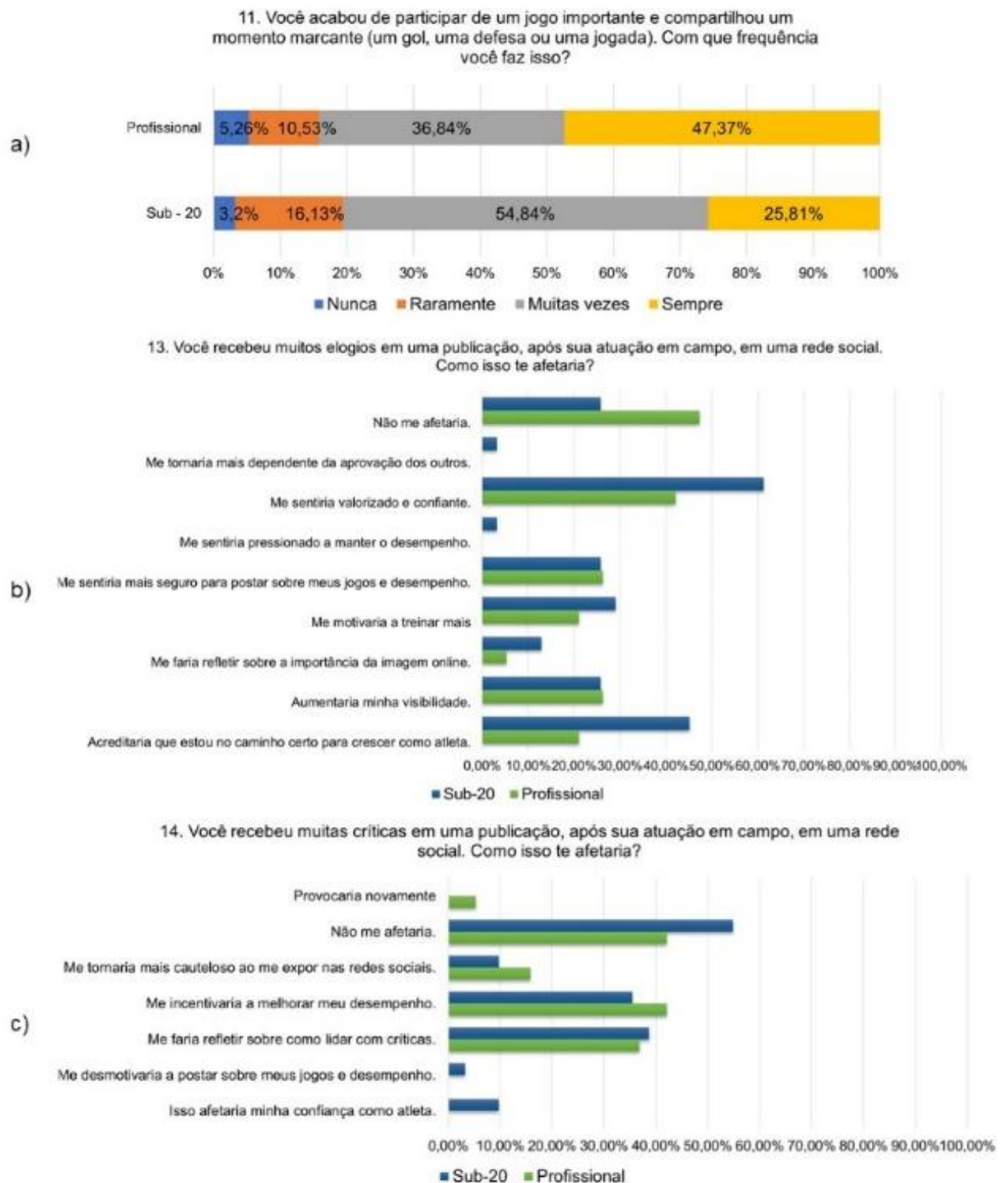
The Under-20s seek more inspiration from other athletes (Q10) (*M* = 3.06) than the Professionals (*M* = 2.84) and participate more in viral trends (Q31) (*M* = 1.87) than the Professionals (*M* = 1.63). Both groups demonstrate low sharing of personal life (Q8), suggesting conscious privacy management (Fink, 2020), and similar use for online technical learning (Q7).

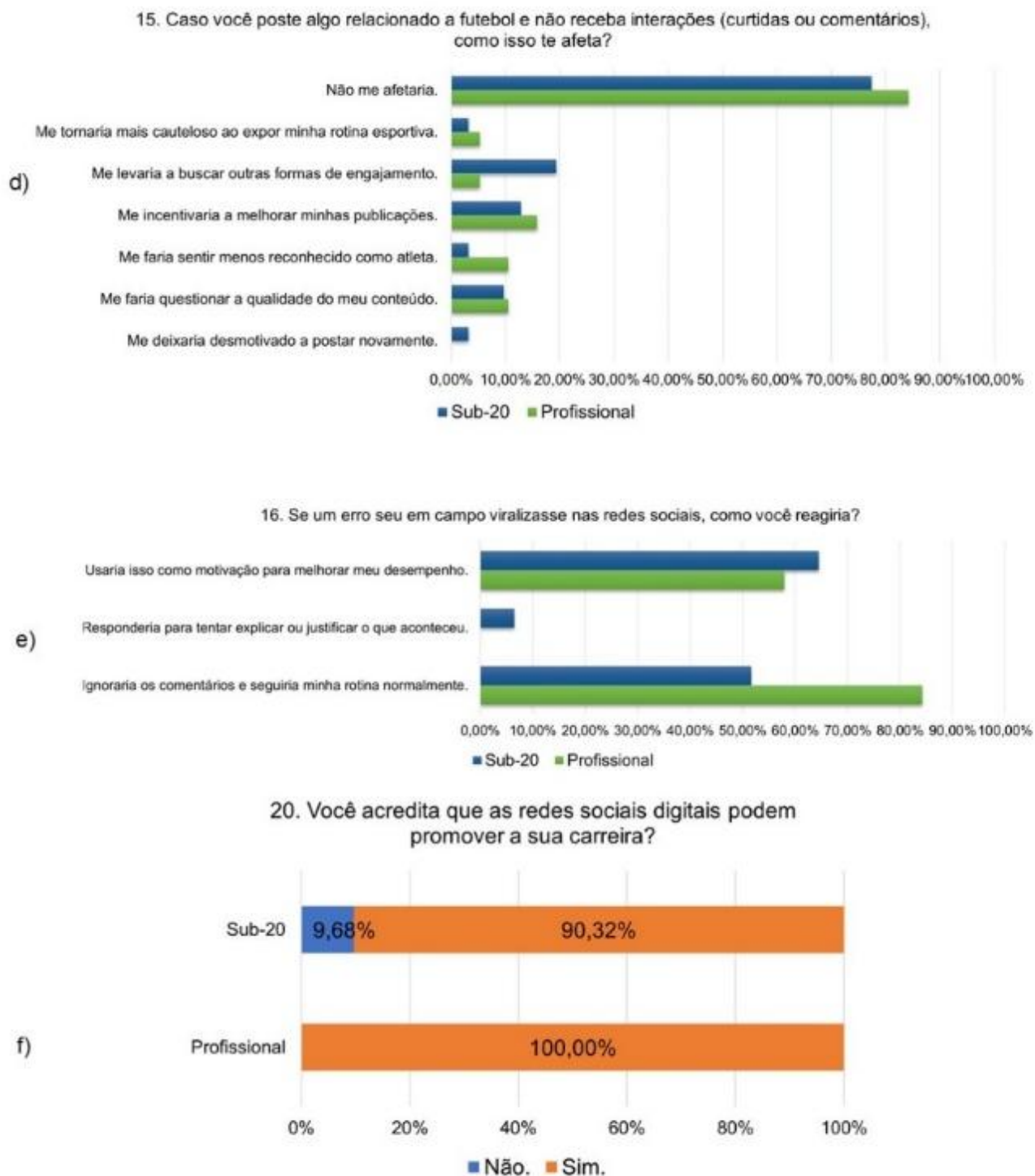


3.2.3 Impacts and Influence on Sports Practice

This section analyses how networks impact athletes' perceptions and actions, a field where benefits and vulnerabilities are evident (Smith; Sanderson, 2023). Figure 3 details the reported impacts and perceptions.

Figure 3 – Impacts and Perceptions





Source: Elaborated by the author, 2025

Figure 3 shows that both groups actively share memorable moments from games, with 80.65% of the Under-20s and 84.21% of the Professionals doing so 'Many Times' or "Always". Most report that praise (Figure 3b) generates 'appreciation and confidence'. Resilience to criticism (Figure 3c), lack of engagement (Figure 3d) and viralisation of mistakes (Figure 3e) is high, with a predominance of indifference ('It wouldn't affect me') or use as motivation, indicating possible coping mechanisms (Reardon *et al.*, 2022). Belief in the potential of networks to promote careers (Q20) is strong, with 100% of Professionals and 90.32% of Under-20s responding 'Yes,' as shown in Figure 3f. Table 7 complements this analysis, focusing on the influences perceived by athletes.

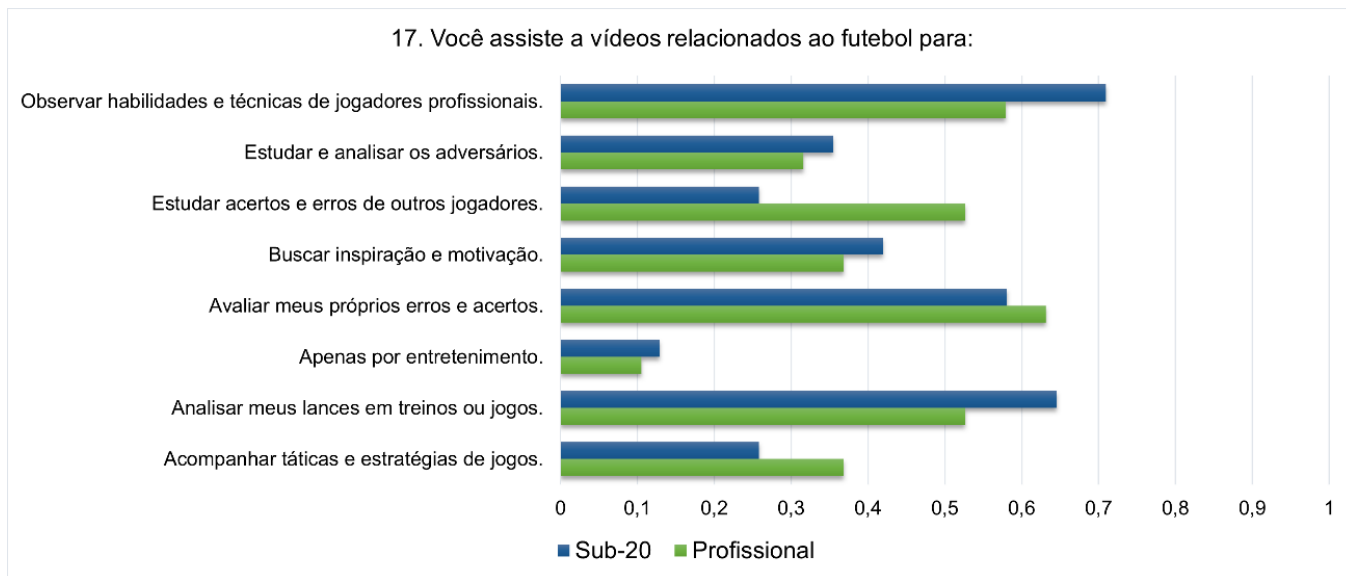
Table 7 - Perceived impacts and influences

11. Perceived Impact/Influence (Question)	Under-20 (<i>n</i>=31) <i>M</i> ± <i>SD</i>	Professional (<i>n</i>=19) <i>M</i> ± <i>SD</i>
12. Influence of others' image and on your own	2,00 ± 0,85	2,32 ± 1,06
34. Exposure of private life affects performance	2,10 ± 0,89	2,68 ± 0,67

Source: Elaborated by the author, 2025

Table 7 shows that Professionals (*M* = 2.32) feel slightly more influenced by the image of others (Q12) than Under-20s (*M* = 2.00), perhaps reflecting greater awareness of the strategic construction of the digital persona (Geurin, 2023). The perception of the risk of exposing one's personal life (Q34) is significantly higher among Professionals (*M* = 2.68) than among Under-20s (*M* = 2.10), possibly due to greater visibility and experience with the consequences of overexposure (Fink, 2020; Smith; Sanderson, 2023). The use of videos as an analysis tool was also investigated, as shown in Figure 4.

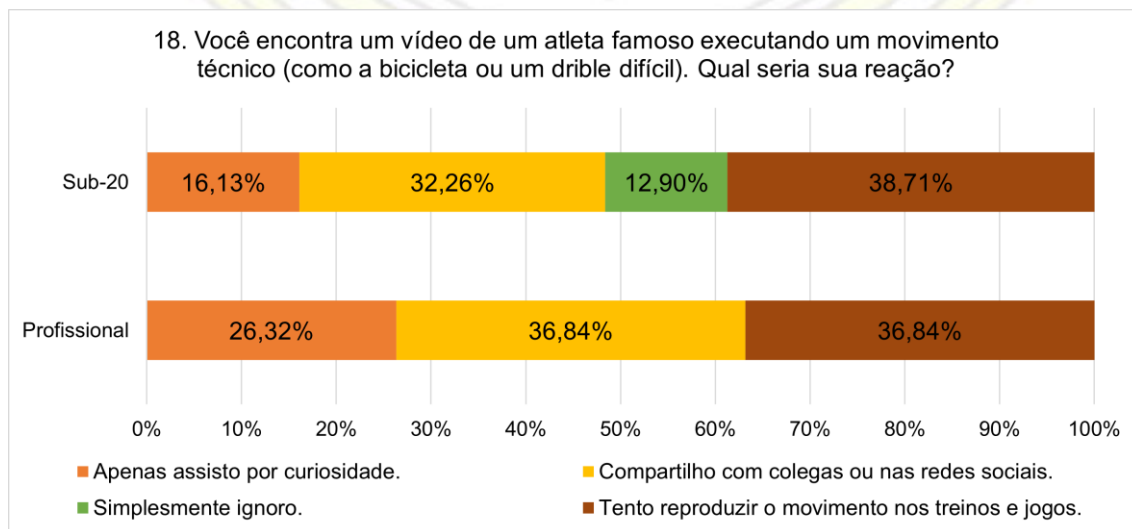
Figure 4 – Use of videos



Source: Elaborated by the author, 2025

Both groups use videos to ‘Assess my own mistakes and successes’ and ‘Analyse my moves in training or matches.’ The main difference is that Professionals (52.6%) focus more on ‘Studying other players’ successes and mistakes’ than Under-20s (25.8%). The reaction to this content also differs, as shown in Figure 5.

Figure 5 - Impact of famous players



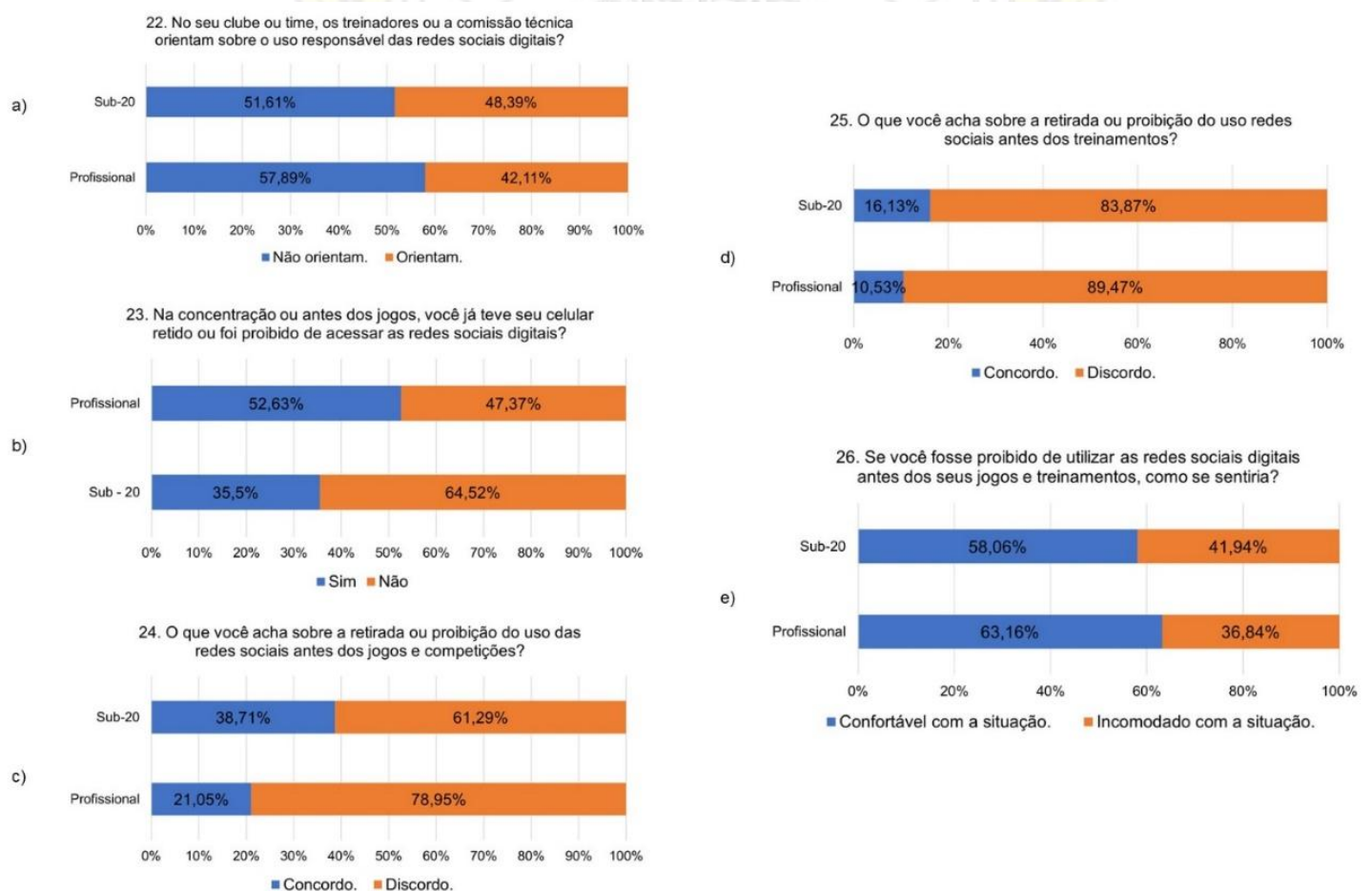
Source: Elaborated by the author, 2025

Figure 5 shows that when encountering a video of a complex technical movement, the Under-20s are more likely to 'Try to reproduce the movement' (38.71%), while the Professionals are divided between 'Try to reproduce' (36.84%) and 'Share with colleagues' (36.84%).

3.2.4 Guidance and Control of Network Use

This theme reveals a paradox between the lack of formal guidance and the demand for it. Figure 6 addresses institutional guidance and athletes' perceptions of restrictions.

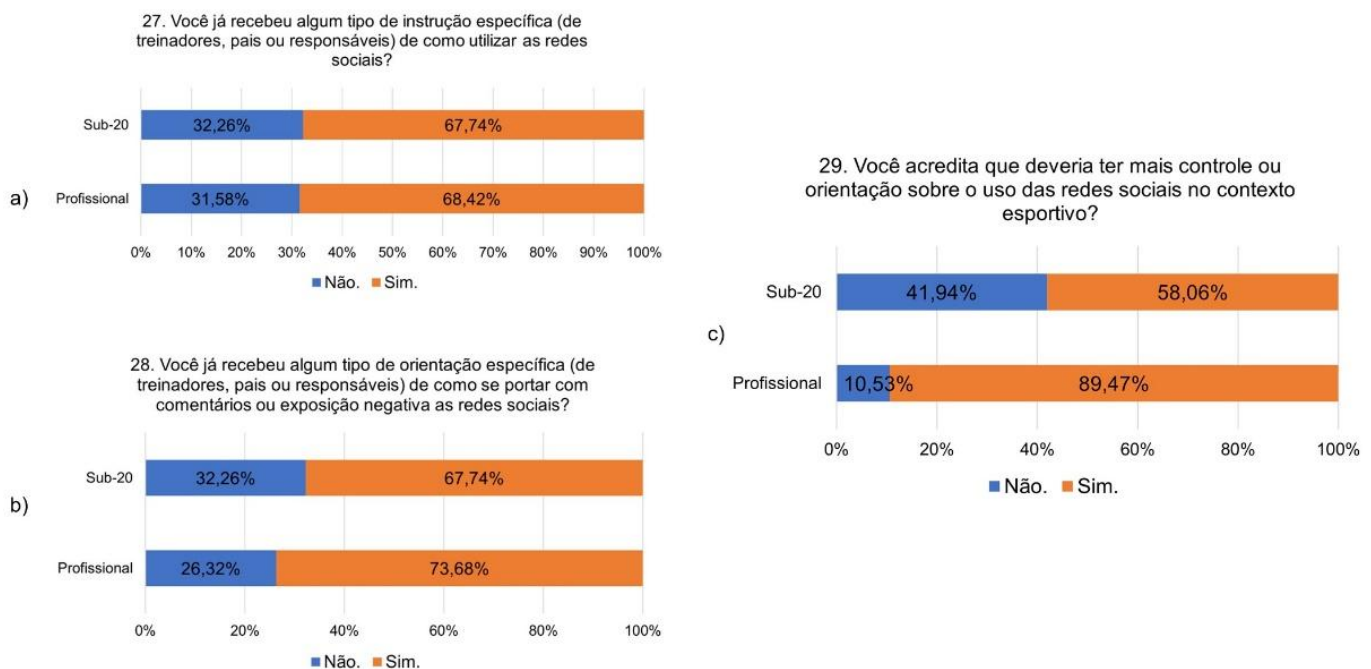
Figure 6 - Guidance and awareness of restrictions



Source: Elaborated by the author, 2025

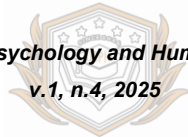
Figure 6 indicates that most athletes (57.89% of Professionals and 51.61% of Under-20s) report not receiving guidance from their club or coaches on the responsible use of social media (Q22). The practice of retaining mobile phones (Q23), detailed in Figure 6b, is more common among professional players (52.63% answered 'Yes') than among under-20 players (35.48%). Despite this, Figures 6c and 6d show that the majority in both groups disagree with prohibiting use before matches (Q24) and training sessions (Q25). Despite the absence of formal guidance, Figure 7 demonstrates the presence of informal instruction and a clear demand for greater support.

Figure 7 - Informal instruction and demand for guidance



Source: Elaborated by the author, 2025

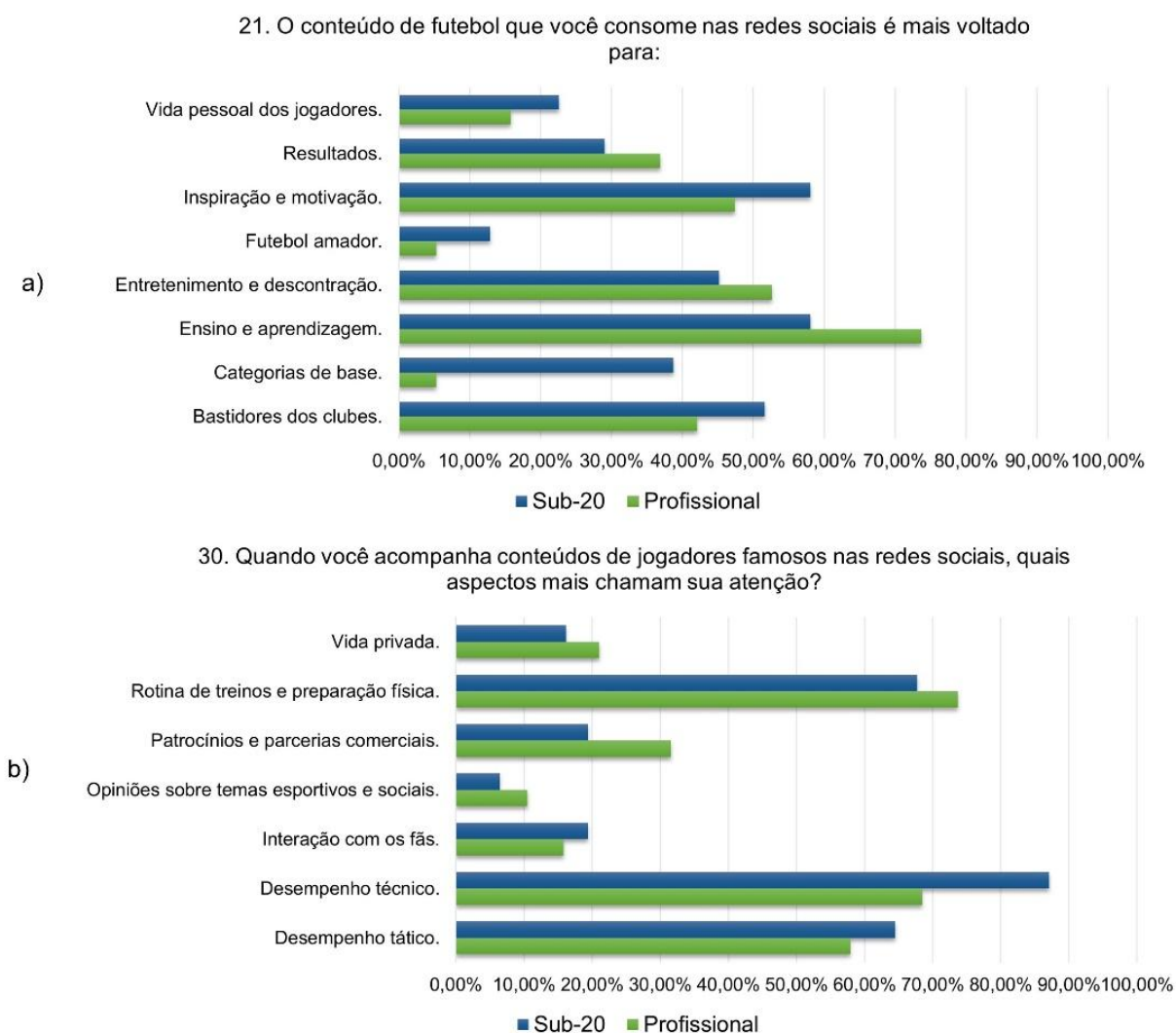
As shown in Figure 7, the majority (68.42% of Professionals and 67.74% of Under-20s) have already received informal instruction from coaches, parents or guardians (Q27). Similarly, Figure 7b shows that the majority have received guidance on how to deal with criticism (Q28). Crucially, Figure 7c points out that the majority believe there should be more control or guidance in the sporting context (Q29), with this demand being significantly higher among Professionals (89.47%) than among Under-20s (58.06%).



3.2.5 Interaction with Content and Perception of Image and Career

The interaction between athletes reveals a focus on performance and strategic differences, as shown in Figure 8.

Figure 8 - Category of content consumed



Source: Elaborated by the author, 2025

The most consumed football content (Figure 8a) is 'Teaching and learning' and 'Inspiration and motivation'. It is noted that Professionals (78.9%) focus more on 'Teaching and learning' than Under-20s (61.3%). When following famous players

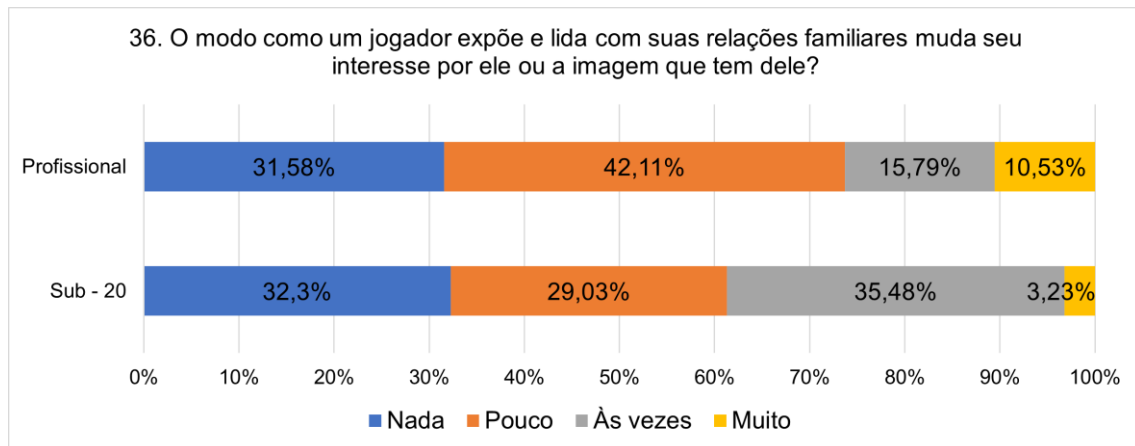
(Figure 8b), the aspects that most attract the attention of both groups are related to performance, such as 'Training routine and physical preparation', 'Technical performance,' and 'Tactical performance.' Table 8 provides further insight into how online behaviour affects image and career.

Table 8 - Perception of image and career

Perception (Question)	Under-20 (n=31) $M \pm SD$	Professional (n=19) $M \pm SD$
35. Do off-field controversies affect admiration?	1,87 \pm 0,72	2,00 \pm 0,75
37. Does online behaviour influence perception?	2,10 \pm 0,70	2,37 \pm 1,12
38. Does political/social positioning influence admiration?	1,61 \pm 0,92	1,84 \pm 1,01
39. Does an active profile influence sponsorships?	3,13 \pm 0,80	3,42 \pm 0,77

Source: Elaborated by the author, 2025

The data in Table 8 indicate that the impact of off-field controversies (Q38), with $M = 2.00$ for Professionals and $M = 1.87$ for Under-20s, and political positions on admiration (Q38), with $M = 1.84$ for Professionals and $M = 1.61$ for Under-20s, is low for both groups. However, a player's online behaviour (Q37) influences the perception of Professional players ($M = 2.37$) more than that of Under-20 players ($M = 2.10$). The commercial view is more pronounced among Professionals ($M = 3.42$), who believe more strongly that an active profile influences sponsorships (Q39), in contrast to Under-20s ($M = 3.13$). Finally, Figure 9 explores perceptions about the exposure of other players' personal lives.

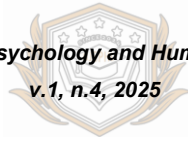
Figure 9 - Perception of exposure of famous players

Source: Elaborated by the author, 2025

Figure 9 shows that the way a player exposes and deals with their family relationships has a varied impact on the image for both groups, with most responses concentrated between “Nothing”, “Little” and “Sometimes”, indicating that, although relevant, it is not a factor of great impact for most.

3.2.6 Summary of Quantitative Results

In summary, the results outline the dual role of digital social networks, which have become an inseparable component of the identity of contemporary athletes (Pegoraro *et al.*, 2024) and, at the same time, a field that lacks structured guidance (Williams; Mcnamara, 2023). This duality manifests itself in distinct generational profiles: the engagement of the Under-20s, more focused on inspiration, entertainment and trends (Auxier; Anderson, 2021), contrasts with the more strategic, analytical and commercial approach of the Professionals, focused on career management and personal branding (Geurin, 2023). However, the importance of platforms as a tool for visibility and development is well known (Silva *et al.*, 2021), a perception that coexists with the recognition of the absence of formal pedagogical and psychological support and a clear demand for greater guidance, especially among Professionals. These empirical findings provide a basis for further discussion in the following section.



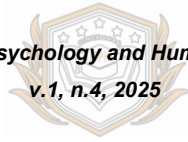
4 DISCUSSION

Based on the results presented, this section integrates qualitative and quantitative evidence from a bioecological and psychological perspective. The analysis of the data obtained through the QRSD questionnaire (Fabris; Serapião, 2025) and semi-structured interviews with professional and under-20 athletes highlights the intertwining of quantitative and qualitative aspects of the phenomenon under investigation, namely the influence of digital social networks on the practice and daily lives of football players. The findings point to a marked presence of these platforms in the athletes' routine, both as a tool for communication and professional visibility and as a source of psychological and behavioural challenges (Merino *et al.*, 2024).

The quantitative data reveal a possible generational difference in network usage patterns. While older professional athletes tend to adopt a strategic and selective approach, Under-20 athletes show greater engagement and daily exposure. In both groups, daily use exceeds an average of five hours (Figure 1c), with Instagram and WhatsApp being the most popular platforms, followed by TikTok among younger athletes and YouTube among professional athletes (Figure 1d), which converges with findings from recent studies (Kong; Lee; Choi, 2023; Yang *et al.*, 2023).

Both the descriptive results (Figure 2) and qualitative reports (Table 1) indicate that the main motivation for using social networks is social contact and communication with family and friends. At the same time, the use for professional development is clear: Table 6 shows a high frequency in the search for learning new techniques online (Q7: $M = 3.19$ for Under-20; $M = 3.26$ for Professional). The consumption of 'Teaching and learning' (Figure 8a) was the main one for Professional (78.9%) and the second for Under-20 (61.3%). These data are in line with the conclusions of Williams and Larkin (2023), who identified social networks as a hybrid space between entertainment, education, and athletic self-expression.

On the qualitative axis, the testimonials reinforce this multifunctionality. Players described the platforms as simultaneous spaces for leisure (P3, P4) and technical learning (P1, P5), a multidimensional duality in which communication, entertainment, and personal marketing coexist (Merino *et al.*, 2024). Thus, social networks not only facilitate interpersonal contact, but also consolidate themselves as a tool for sporting and professional development (Smith; Sanderson, 2023; Silva *et al.*, 2021).



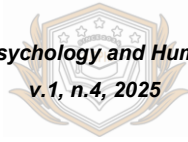
It is also possible to observe the significant influence of digital exposure on self-esteem and performance perception. Criticism received generates ambiguous reactions. Although younger players report viewing such comments as encouragement, most demonstrate remarkable emotional resilience in the face of lack of engagement or the viral spread of mistakes (Figures 3c, 3d, 3e), with a predominance of responses such as 'It wouldn't affect me' or 'I would use it as motivation.' This can be interpreted as a psychological coping mechanism (Weinberg; Gould, 2017; Reardon *et al.*, 2022).

Qualitative reports corroborate this picture. Players such as P3 and P4 reported discomfort with excessive exposure and the need for self-control to deal with criticism (Table 2). P5 highlighted that distractions from social media can affect focus and performance (Table 2, Table 4), a result similar to that found by Trotter *et al.* (2024). These findings reinforce the importance of psychological coping skills (Weinberg; Gould, 2017) and media preparation for high-performance athletes.

From a quantitative perspective, the high level of engagement in self-promotion is clear: Figure 3a shows that more than 80% of both categories report sharing memorable moments from games (84.21% of Professionals and 80.65% of Under-20s). In addition, Figure 3f demonstrates an almost unanimous belief that networks can boost sporting careers (100% of Professional and 90.32% of Under-20 players). These results are reflected in recent research, which highlights the role of networks in self-promotion and the construction of digital sporting identity (Geurin, 2023; Pegoraro *et al.*, 2024).

Qualitative reports reinforce this perception. P2 and P5 highlighted that networks function as a means of learning and observing practices (Table 3), while P3 and P4 warned of the risks of overexposure and distorted interpretation of posts (Table 3). Thus, the digital environment is simultaneously a space for knowledge construction and a source of emotional vulnerability, a phenomenon also identified by Kim *et al.* (2024).

These findings are consistent with Bronfenbrenner's (2002) concept of the bioecological field, according to which the digital environment integrates the athlete's microsystem and mesosystem of development, interacting with family, institutional, and media relationships. Networks, therefore, function as mediators between the sporting context and psychological processes, influencing motivation, self-perception and behaviour (Weinberg; Gould, 2017; Reardon *et al.*, 2022).

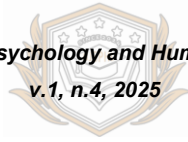


Another relevant point is the lack of institutional guidance on the use of networks. Figure 6a reveals that just over half of the athletes (57.89% of Professional and 51.61% of Under-20) reported a lack of instruction from technical committees. In contrast, Figure 7c points to a strong demand for support, especially from Professional athletes, 89.47% of whom believe that there should be greater control or monitoring. The data also indicate that the solution is not simple restriction: Figures 6c and 6d show that practices such as banning mobile phones during training camps were widely rejected, indicating a strong aversion among athletes to restrictive regimes. This refusal is associated with criticism made by youth players of traditional sports isolation (Morão *et al.*, 2016).

In qualitative reports, differences in digital maturity between clubs are observed. P3 mentioned that larger clubs have press offices, while smaller ones neglect this support (Table 4). This asymmetry reinforces the need for preparatory digital literacy interventions that promote ethical, strategic, and emotionally healthy use of social media (SaferNet, 2024; Morão *et al.*, 2020).

Finally, risk perception is higher among Professionals players. Table 7 (Q34) shows that they perceive that exposure of their private lives affects performance more ($M=2.68$) compared to Under-20 players ($M=2.10$). Similarly, Table 8 (Q37) indicates that Professionals believe more that online behaviour influences public perception ($M=2.37$ versus $M=2.10$ for Under-20s). Both groups demonstrate high awareness of the commercial importance of social media (Q39), strongly believing that active profiles favour sponsorship, as indicated by the high averages in Table 8 ($M=3.42$ for Professionals and $M=3.13$ for Under-20s).

The qualitative statements converge with this overview. Players such as P1 and P5 stated that social media has become indispensable to the public image of the modern athlete (Table 5), although it carries risks of exposure (P3, P4). This balance between benefit and vulnerability summarises the contradictory nature of social media, which is simultaneously a tool for advancement and a source of psychological pressure. The duality observed reinforces that contemporary sporting identity is constructed in parallel with cyberspace, where athletic performance, social engagement, and public perception interact dynamically and continuously (Pegoraro *et al.*, 2024; Weinberg; Gould, 2017).



5 CONCLUSION

The results obtained demonstrate that digital social networks have become an integral part of the development environment for football players, transcending their communicational use to become integrated into the psychological, social, and cultural dynamics of current sports practice. With emphasis on the Bioecological Theory of Human Development (Bronfenbrenner, 2006), the digital environment acts as an active microsystem in which athletes interact continuously with peers, coaches, family members and the public, influencing and being influenced by these exchanges. The platforms, therefore, broaden the field of interactions, becoming a space for learning, socialisation and identity building.

In convergence, cyberspace (Levy, 1999) represents the symbolic environment where athletes coexist between the real and the virtual, negotiating values, emotions and meanings. This new sphere of communication broadens access to information and the potential for self-promotion, but also poses challenges related to overexposure, social comparison, and emotional exhaustion, which requires critical and ethical skills for the healthy use of digital media.

In turn, when relating to the aspects that underpin Sports Psychology (Weinberg; Gould, 2017), it is possible to understand that athletic performance and mental well-being are directly related to how athletes regulate their emotions, deal with stress, and maintain self-confidence in the face of external demands. Digital social networks, by functioning as an extension of the competitive environment, can both strengthen support, motivation, and a sense of belonging, as well as generate psychological pressure and emotional vulnerability.

Therefore, the phenomenon investigated reveals that contemporary football is immersed in a bioecological digital ecosystem, connecting microsystems (family, club, and social network) and macrosystems (media, sports culture), in which sports development in cyberspace is inseparable from human development. Recognising the role of digital social networks as part of this context implies promoting preparatory and psychological processes aimed at digital understanding, emotional self-regulation and the ethical use of technologies, ensuring that online presence contributes to the athlete's integral growth and does not become a risk factor for their mental health, sporting performance and personal identity.

REFERENCES

- AUXIER, B.; ANDERSON, M. **Social Media Use in 2021**. Washington, D.C.: Pew Research Center, 2021. Disponível em: <<https://pewrsr.ch/3cYWjHA>>. Acesso em: 23. out. 2025.
- BARDIN, L. **Análise de conteúdo**. Lisboa: Edições 70, 2018.
- BRONFENBRENNER, U. **A ecologia do desenvolvimento humano: experimentos naturais e planejados**. 2. ed. Porto Alegre: Artmed, 2006.
- BRONFENBRENNER, U. **Making Human Beings Human: Bioecological Perspectives on Human Development**. Thousand Oaks: Sage, 2002.
- CASTELLS, M. **The rise of the network society: The information age: economy, society, and culture**. 2. ed. Oxford: Wiley-Blackwell, 2010.
- CLEMENTE-SUÁREZ, V. J.; GARCÍA-RAMOS, F.; TORNERO-AGUILERA, J. F. Psychological resilience and performance in high-stress sports. **Journal of Sport Psychology**, v. 45, n. 2, p. 123-135, 2022.
- CRESWELL, J. W.; CLARK, V. L. P. **Designing and conducting mixed methods research**. 3. ed. Thousand Oaks: SAGE Publications, 2017.
- DYER, B. Technology and its impact on football: The evolution of VAR and its controversies. **Journal of Sports Technology and Ethics**, v. 15, n. 3, p. 345-362, 2022.
- FABRIS, F. L.; SERAPIÃO, A. B. S. **Índice De Validação De Conteúdo (Ivc) Do Instrumento De Investigação Sobre O Uso Das Redes Sociais Digitais No Futebol – QRSD (Questionário Para Redes Sociais Digitais)**. *Lumen Et Virtus*, v. 16, n. 49, p. 6990–7010, 2025.
- FINK, J. S. Social media and the modern athlete: Managing identity and risks. **International Journal of Sport Communication**, v. 13, n. 2, p. 197-210, 2020.
- GARCÍA-RAMOS, F.; GONZÁLEZ, P.; SALGUERO, A. The role of social media in sports *marketing*: Athletes and their public image. **European Journal of Sport Management**, v. 12, n. 1, p. 45-63, 2021.
- GEURIN, A. N. Athlete Branding in the Era of Social Media: A Scoping Review. **Communication & Sport**, 2023.
- KIM, H. J. *et al.* Social Media Use, Psychological Stress, and Self-Efficacy in Korean Athletes. **International Journal of Environmental Research and Public Health**, v. 21, n. 3, 2024.
- KONG, D.; LEE, J.; CHOI, S. Digital Attention and Self-Presentation among Young Athletes. **Journal of Sports Sciences**, v. 41, n. 5, 2023.
- LÉVY, P. **Cibercultura**. São Paulo: Editora 34, 1999.
- MERINO, M.; TORNERO-AGUILERA, J. F.; RUBIO-ZARAPUZ, A.; VILLANUEVA-TOBALDO, C. V.; MARTÍN-RODRÍGUEZ, A.; CLEMENTE-SUÁREZ, V. J. **Body**

perceptions and psychological well-being: a review of the impact of social media and physical measurements on self-esteem and mental health with a focus on body image satisfaction and its relationship with cultural and gender factors. *Healthcare* (Basel), v. 12, n. 14, p. 1396, 2024.

MORÃO, K. G.; *et al.* A reclusão/concentração esportiva para atletas de categorias de base do futebol brasileiro. **Revista Portuguesa de Ciências do Desporto**, v. 16, n. 3, p. 78-89, 2016.

MORÃO, K. G.; *et al.* Os perigos das mídias digitais: Alterações psicológicas em futebolistas brasileiros. **RBFF - Revista Brasileira de Futsal e Futebol**, v. 12, n. 47, p. 67-74, 26 ago. 2020.

PEGORARO, A.; JINNAH, J.; DANYLCHUK, K. Athlete Activism and Digital Identity in Sport. **Sport Management Review**, v. 27, n. 1, 2024.

REARDON, C. L. *et al.* Mental Health in Elite Athletes: Recent Advances and Future Directions. **British Journal of Sports Medicine**, v. 56, n. 10, p. 545–552, 2022.

SAFERNET BRASIL. **Relatório Anual: Juventude e Redes Sociais**. São Paulo: SaferNet, 2024. Disponível em: <https://www.safernet.org.br>. Acesso em: 24 fev. 2025.

SILVA, A. L. S.; ARAÚJO, V.; ROSARIO, P. **An Instagram analysis of players from the Brazilian Women's National Football Team:** narrations of training sessions. *Movimento*, Porto Alegre, v. 27, e27001, 2021.

SMITH, L.; SANDERSON, J. The Double-Edged Sword of Social Media: Visibility and Vulnerability in Modern Athletes. **Communication & Sport**, v. 11, n. 4, 2023.

STATISTA. **Most popular social networks worldwide as of July 2024, ranked by number of monthly active users**. [s.l.]: Statista, 2024. Disponível em: <https://www.statista.com/topics/1164/social-networks/?srsltid=AfmBOoo01CQvhaOGBZwgEsLxiyZe_SzmTSuXqU-Y6HjWq7E3XH1ljPJ1>. Acesso em: 23 out. 2025.

STRACHAN, L.; TAYLOR, M.; SMITH, K. Digital exposure and athlete well-being: Opportunities and threats. **Sports Psychology Review**, v. 29, n. 4, p. 412-428, 2023.

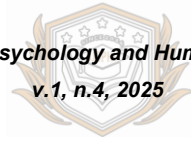
TROTTER, M. G. *et al.* Pre-Competition Social Media Use and Mental Fatigue in Youth Athletes. **Journal of Sports Psychology in Action**, 2024.

WEINBERG, R. S.; GOULD, D. **Fundamentals of Sport and Exercise Psychology**. 6. ed. Champaign: Human Kinetics, 2017.

WILLIAMS, A.; LARKIN, P. Learning in the Digital Arena: How Athletes Use Social Media for Self-Improvement. **Sport, Education and Society**, v. 29, n. 2, 2023.

WILLIAMS, T.; McNAMARA, L. Media Education and Athlete Development in Elite Sport Systems. **International Review for the Sociology of Sport**, 2023.

YANG, X. *et al.* Online Engagement and Psychological Pressure among Youth Football Players. **Frontiers in Psychology**, v. 14, 2023.



This work was carried out with the support of the Coordination for the Improvement of Higher Education Personnel – Brazil (CAPES) – Funding Code 001.

