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FITNESS APPS VS. PERSONAL TRAINERS: USER PERCEPTIONS, PREFERENCES, AND THE FUTURE OF DIGITAL SUPPORT IN PHYSICAL ACTIVITY

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Abstract

Introduction. Although fitness apps are widely used, few studies have directly compared them with personal trainers from the user's perspective. This study aimed to assess user perceptions of fitness apps versus personal trainer services, focusing on motivation, trust in information, and support preferences. **Material and methods.** The study involved 501 gym members aged 18–50 years ($M = 29.5$, $SD = 7.4$) from Katowice, Poland. Data were collected via a structured questionnaire covering exercise habits, motivations, experiences with fitness apps and personal trainers. Statistical analyses examined gender differences and the perceived usefulness of different forms of training support. **Results.** Health was the primary exercise motivation (52.3%), with gender-related differences. While 80.6% used fitness apps, only 1.4% viewed them as equivalent to personal trainers. Apps were valued for tracking progress, dietary monitoring, and affordability. However, most users felt they could not replace trainers due to lack of real-time feedback, technique correction, and interpersonal connection. Still, 30.5% saw potential in emerging technologies – especially AI – as future complements or alternatives. **Conclusions.** Fitness apps are seen as supportive but not substitutive tools for personal training. While technology increases accessibility and autonomy in fitness behaviors, personalized, interactive coaching remains a key element of perceived training effectiveness.

Keywords: fitness apps, personal training, user perception, physical activity

Introduction

In recent years, the mobile application market for health and fitness has expanded rapidly. So-called fitness apps are mobile tools that enable users to plan, monitor, and enhance their physical activity, often incorporating interactive features and multimedia content. This growth reflects a broader trend toward the digitization of lifestyle habits and the growing demand for personalized health and fitness solutions. According to review data, fitness applications are particularly popular among young and physically active individuals, offering features such as workout planning, progress tracking, video instructions, and interactive training sessions [1, 2]. Their high accessibility and ease of use have led many individuals to utilize mobile apps as a substitute for, or a supplement to, traditional forms of physical activity supervised by a specialist. This trend is especially relevant in the context of increasing mobility among younger generations and their preference for technological solutions [3].

Despite the popularity of fitness apps, personal training conducted by certified professionals remains highly valued. Research consistently shows that supervised training leads to improved adherence, technique, and motivation [4]. Personal trainers also serve as advisors, mentors, and sources of psychological support, which can play a significant role in long-term lifestyle change [5]. Moreover, research indicates that individuals training with a specialist tend to select higher exercise intensities and achieve better results in strength and muscle mass

compared to those who train independently [6, 7]. The motivational benefits of supervision extend beyond personal trainers. Training in pairs or groups, where social accountability and competition are present, also enhances consistency and exercise intensity [8, 9].

A critical question arises: can fitness apps replicate the support and effectiveness provided by personal trainers? While some studies suggest apps can yield comparable outcomes for certain populations – especially beginners or individuals with limited mobility – differences remain in adherence and long-term motivation [10, 11, 12]. Recent innovations, including AI-powered “smart trainers” capable of real-time technique correction, have further narrowed the gap between app-based and trainer-led experiences [12, 13]. Although previous studies suggest that current technologies may not fully replicate the holistic support offered by personal trainers, little is known about how users themselves perceive these differences. Developments in artificial intelligence and motion monitoring technology may, in the future, bring app functionality closer to that offered by personal trainers, but this remains a challenge today.

Many fitness apps fall short of professional quality standards or lack evidence-based training recommendations [2]. Their effectiveness often depends on user engagement and prior training knowledge, raising concerns about injury risk or ineffective routines [14]. In some cases, exclusive reliance on apps may lead to technical errors or overtraining, which can, in turn, discourage continued physical activity.

Public discourse also reflects this shift. For instance, a Wall Street Journal article highlighted both the promise and limitations of popular strength-training apps, noting issues such as lack of personalization – an area where traditional training still holds an edge [15].

Although numerous studies have examined the benefits of fitness apps, direct comparisons between app-based and trainer-led approaches from the user's perspective remain limited. Most existing research focuses on specific aspects, such as motivation or adherence, often neglecting holistic user experience [5, 16, 17]. Therefore, the study aimed to answer the following questions:

- What are users' perceptions regarding the usefulness of fitness apps in achieving fitness goals?
- To what extent do users trust the information and guidance provided by these apps?
- What are the primary motivations for using fitness apps, and how do these reflect broader trends in self-directed fitness and accessibility?
- How do users compare the effectiveness of fitness apps to personal training services, and what factors influence their perception of these tools as complementary or alternative sources of fitness support?

Material and methods

Participants

The study included 501 individuals aged 18 to 50 years ($M = 29.5$, $SD = 7.4$), all of whom were members of a fitness club in Katowice, Poland. Participants were selected through purposive sampling based on accessibility. The sample comprised 45.9% women ($n = 230$) and 54.1% men ($n = 271$). The mean age did not significantly differ between female and male participants (29.3 ± 7.6 vs. 29.7 ± 7.3 ; $t = 0.7$, $p = .503$). Data collection occurred over a seven-month period from March to September 2024.

Procedure

All participants held active gym memberships and represented a variety of exercise modalities, including strength training, cardiovascular training, running, fitness classes, and mixed recreational activities. All voluntarily agreed to participate in the study.

A self-administered survey questionnaire, accompanied by an information sheet and informed consent form, was made available at the gym reception desk to ensure accessibility. Participants were informed of the purpose of the study, the voluntary nature of their participation, and the anonymity of their responses, both verbally and in writing.

They were assured that they could withdraw at any time without providing a reason or facing negative consequences. The identity of the researcher and the aims of the study were disclosed in advance. Participants were expected to complete the questionnaire independently and honestly. In case of any uncertainty regarding terminology, they were encouraged to seek clarification. The return of a completed questionnaire was considered an indication of informed consent.

Ethical statement

The study was conducted in accordance with general ethical standards for research involving human participants, including the principles of the Declaration of Helsinki. In line with the recommendations of the National Science Centre (Poland) regarding research involving human participants, the project did not

require approval from a Bioethics Committee, as it involved only adult participants capable of providing informed consent. Participation was fully voluntary and anonymous, and the study did not involve any intervention or procedures that would classify it as requiring formal ethical review. The study was not externally funded and was carried out using the authors' own resources.

Measures

The study employed an original questionnaire designed to examine the use of mobile sport and fitness applications and their perceived role in relation to personal training services. The instrument was anonymous and self-administered, which was intended to encourage candid responses and improve the reliability of the collected data.

The questionnaire consisted of two main parts: a demographic section and a substantive section. The demographic section gathered basic socio-demographic data, including sex, age, place of residence, and educational attainment. The substantive section addressed participants' motives for physical activity, preferred exercise settings, weekly training frequency, and the duration of individual training sessions.

Further items focused on the use of training plans and mobile applications, including the type of applications used, the source of download, frequency and length of use, and the extent to which respondents considered the applications helpful in achieving their training goals. The questionnaire also included items concerning the perceived usefulness, credibility, and ease of use of sport and fitness applications, as well as their influence on motivation to exercise.

In addition, several questions examined the comparative perception of mobile applications and personal trainer services. These items explored respondents' preferences between the two solutions, their assessment of whether mobile applications are equivalent to personal trainers in terms of training effectiveness, and their views on whether the development of such applications may reduce the future demand for personal trainers.

The questionnaire included closed-ended, semi-open, and open-ended questions, enabling both quantitative analysis and the collection of more detailed qualitative responses. This structure allowed for a comprehensive assessment of respondents' experiences, attitudes, and preferences regarding mobile fitness technologies and personal training.

The questionnaire was developed based on a literature review and previous research in the areas of physical activity and digital health tools. Two experts in health psychology and physical recreation reviewed the instrument to assess content validity. Quantitative responses were statistically analysed, while open-ended responses were coded thematically for qualitative insights.

Statistical analysis

Statistical analyses were conducted to evaluate gender differences in motives for physical exercise, exercise locations and frequency, training planning and sources, and the use of fitness applications among respondents. Categorical variables, such as motives for exercise, exercise locations, training plan sources, and fitness app usage, were compared between men and women using the chi-square (χ^2) test of independence. Effect sizes for significant chi-square results were calculated using omega (ω), with values interpreted as small ($\omega \approx 0.10$), medium ($\omega \approx 0.30$), and large ($\omega \geq 0.50$).

Continuous variables, including the number of exercise days per week and average session duration, were analysed using independent samples t-tests to assess mean differences between

genders. Effect sizes for t-tests were calculated using Cohen's d, with thresholds of 0.2 (small), 0.5 (medium), and 0.8 (large).

Statistical significance was set at $p < 0.05$. All analyses were performed using Statistica 13.3 software (TIBCO, USA). Descriptive statistics are presented as means $\pm$ standard deviations (SD) for continuous variables and as frequencies (percentages) for categorical variables. Where applicable, trends (p -values between 0.05 and 0.10) are reported to indicate potential differences warranting further investigation.

Results

The results are presented in accordance with the four aims of the study. The first and second sections address users' perceptions of app usefulness and effectiveness in achieving fitness goals. The third section examines the extent to which users trust the information and guidance provided by fitness apps. The fourth section covers primary motivations for app use. The final sections address users' comparative assessment of fitness apps versus personal trainer services, including factors influencing perceptions of these tools as complementary or alternative sources of support.

Motives and patterns of physical exercise engagement

The most frequently declared motive for undertaking physical exercise among respondents was concern for health (52.3%), with significant gender differences (women: 71.7% vs. men: 35.8%; $p < .001$; $\omega = 0.23$). Gender differences were also observed regarding the desire to increase muscle mass, which was a motive more commonly indicated by men (67.9% vs. 11.3% of women; $p < .001$; $\omega = 0.63$), as well as weight loss, which was indicated by a significantly larger proportion of women (76.5% vs. 16.2% of men; $p < .001$; $\omega = 0.43$).

No significant differences were found in the motives for improving physical fitness (women: 36.5%, men: 39.5%; $p = .649$) or stress reduction (women: 20.4%, men: 28.0%; $p = .124$). Detailed data are presented in table 1.

Table 1. Motives for exercising declared by respondents.

Variable	Whole sample N (%)	Female	Male	p, effect size (ω)
Lose weight	220 (43.9)	176 (76.5)	44 (16.2)	$<.001$; $\omega = .43$
Gain muscle mass	230 (45.9)	26 (11.3)	184 (67.9)	$<.001$; $\omega = .63$
Health	262 (52.3)	165 (71.7)	97 (35.8)	$<.001$; $\omega = .23$
Improving physical fitness	191 (38.1)	84 (36.5)	107 (39.5)	.649; $\omega = .00$
Stress relief	123 (24.6)	47 (20.4)	76 (28.0)	.124; $\omega = .004$

Note: Percentages do not total 100% as respondents could select multiple motives.

Exercise locations and frequency

The most common training modalities among app users were strength training ($n = 127$), cardiovascular training ($n = 103$), running ($n = 54$), and fitness classes ($n = 38$). Seventy-two participants reported universal app use, not tied to a specific training type.

Regardless of gym attendance, 41.3% of respondents reported exercising outdoors, with a trend toward gender differences (men: 46.9% vs. women: 34.8%; $p = .072$). Exercising at home, referred to as workouts performed primarily inside the partici-

pant's home environment using bodyweight exercises, home fitness equipment, or app-guided exercise sessions, was reported by 28.9% of respondents, with a significantly higher proportion of women (49.1% vs. men: 11.8%; $p < .001$; $\omega = 0.35$).

On average, respondents exercised 3.02 ± 1.3 days per week, with men training more frequently and for longer durations than women (3.3 ± 1.1 vs. 2.7 ± 1.3 ; $t = 6.1$; $p < .001$; $d = 0.50$). Similarly, men reported longer workout sessions (85.8 ± 23.2 min) than women (76.2 ± 24.5 min; $t = 4.4$; $p < .001$; $d = 0.40$).

Training planning and sources

Nearly 90% of respondents followed a specific training plan, with a higher proportion of men (92.6%) than women (86.1%; $p = 0.017$; $\omega = 0.11$). The most common source of training plans was personal knowledge and experience (51.5%), especially among men (64.2% vs. women: 36.5%; $p < .001$; $\omega = 0.20$).

Women were more likely to use YouTube videos (34.8% vs. 21.8%; $p = .015$; $\omega = 0.14$) and personalized plans from trainers (25.2% vs. 11.4%; $p < 0.001$; $\omega = 0.14$).

Among participants following structured training plans, the most common sources were personal experience (51.5%), YouTube-based guidance, and plans prepared by personal trainers.

Use of fitness applications

Only 19.4% of respondents had never used fitness apps, with the majority being current (36.5%) or former users (43.5%). The most popular apps were fitness trackers and workout loggers (51.7% overall), used more frequently by women (60.0% vs. men: 44.6%; $p = 0.054$; $\omega = 0.12$). Apps for monitoring dietary habits were also common (42.5%), with no significant gender differences. For detailed data, see table 2 below.

Perceived usefulness and motivations for using fitness apps

Most respondents ($n = 362$; women: $n = 169$, men: $n = 193$) considered fitness apps to be helpful in achieving fitness goals, though not essential. Thirty-two participants (women: $n = 17$, men: $n = 15$) regarded them as absolutely essential tools, whereas only a marginal number of respondents considered them completely unnecessary. No significant differences were observed between genders in the assessment of app usefulness ($p = .773$).

Most respondents rated the information provided in the apps as "rather professional" ($n = 203$) or "very professional" ($n = 21$). The remaining participants described it as "amateur" or "rather amateur." No significant differences were found between genders ($p = .308$). For detailed data, see table 3.

Respondents, who could indicate up to three motivations for using apps, most frequently listed:

- The ability to plan and monitor training progress (52.5%; $n = 263$),
- Tracking diet and nutritional habits (47.1%; $n = 236$),
- Low cost as an alternative to much more expensive personal trainer services (43.1%; $n = 216$),
- Ease of use (36.9%; $n = 185$),
- Embarrassment about exercising in the presence of others (29.5%; $n = 148$).

Less frequently mentioned were the motivational effects of the apps (11.8%; $n = 59$), access to educational content (2.4%; $n = 12$), and interactions with other users (1.8%; $n = 9$).

The most common types of training for which apps were used included strength training ($n = 127$), cardio ($n = 103$), running ($n = 54$), and fitness ($n = 38$). Seventy-two participants indicated universal use of the apps (Fig. 1).

Table 2. Range of use of training applications by respondents.

Variable	Whole sample N (%)	Female	Male	Difference p, ES
Yes, currently	183 (36.5)	81 (35.2)	102 (37.6)	p = .125 V = .09
Yes, previously	218 (43.5)	111 (48.3)	107 (39.5)	
Never	97 (19.4%)	38 (16.5)	59 (21.8)	
Types of Applications*				
smartphone	290 (57.9)	140 (60.9)	150 (55.4)	
smartwatch	256 (51.1)	125 (48.7)	131 (44.6)	
Function Categories				
Activity Trackers ¹	259 (51.7)	138 (60.0)	121 (44.6)	p = .054 ω = .12
Workout Plans and Sets ²	82 (16.4)	37 (16.1)	45 (16.6)	p = .895 ω = .02
Motivational Features ³	38 (7.6)	19 (8.3)	19 (7.0)	p= .928
Diet Plan Apps ⁴	213 (42.5)	97 (42.2)	116 (42.8)	p= .928
Specialized Training Program ⁵	19 (3.8)	7 (3.0)	12 (4.4)	p= .436
An app dedicated to my smartwatch or smartband ⁶	174 (34.7)	100 (43.5)	74 (27.3)	p = .009 ω = .20

* – Counts and percentages exceed N and 100% because respondents were allowed to select multiple options.

¹ The main ones were Garmin Connect (n = 55), Apple Health (n = 37), Strava (n = 31), MiFitness (n = 20).

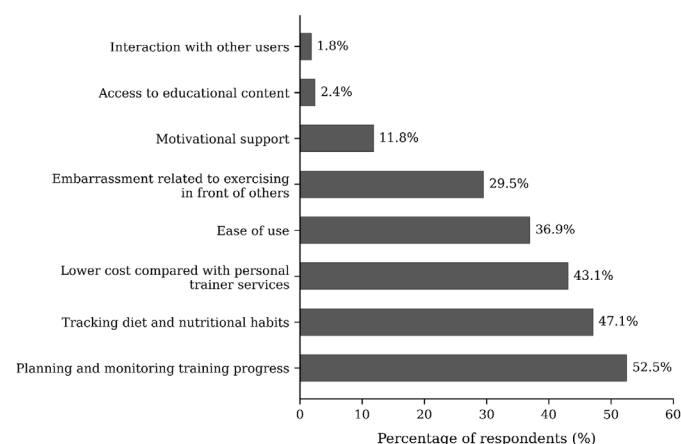
² Hevy (n = 24), FitON (n = 19), Adidas Training by Runtastic (n = 6), JeFit (n = 6).

³ Gravitus (n = 26), Habitica (n = 6).

⁴ Fitatu (n = 109), Yazio (n = 36), my fitness pal (n = 21).

⁵ Fitify (n = 5), 7 minute workout (n = 5), Abs Workout (n = 4), Six Pack Abs (n = 2).

⁶ Garmin Connect (n = 50), Zepp (n = 26), Samsung Health (n = 24).

**Fig. 1.** Primary motivations for using fitness applications.

Sharing results on social media

Physical activity results were shared by 16% of respondents (n = 80; women: 14.3%, men: 17.3%; p = 0.211). The most frequently chosen platform was Instagram (n = 75), followed by TikTok (n = 20) and Facebook (n = 14). Strava was indicated by one person.

Table 3. Respondents' trust in information and guidance provided by fitness applications.

Assessment of professionalism of app content	Total (n)	Total (%)	Women (n)	Men (n)	p-value
Very professional	21	4.2	7	14	p = .308
Rather professional	203	40.5	91	112	
Rather amateur	171	34.1	88	83	
Amateur	7	1.4	4	3	
No opinion	99	19.8	40	59	
Total	501	100	230	271	

Note: Respondents evaluated the perceived professionalism of information and guidance provided by fitness applications.

Use of personal trainer services

Among study participants, 14.0% (n = 70) are currently using personal trainer services, 52.1% (n = 261) have used them in the past, and 32.7% (n = 164) have never used this form of support. The distribution of responses by gender was similar in each category (women vs. men: currently 32 vs. 38, previously 111 vs. 150, never 84 vs. 80). Statistical analysis did not show significant differences between genders (p = .216).

The most frequently indicated motivation for using personal trainer services was an individual approach and a personalized training plan (46.3%, w = 107, m = 125; p = .957). The next most common motives were professional support and supervision ensuring safety (35.7%, p = .623) and motivation and inspiration related to the relationship with the trainer (33.1%, p = .401). Respondents less often indicated the need for support in exercise technique (n = 179, p = .067) and progress monitoring (n = 95, p = .495). Only 6.6% (n = 33) used personal trainer services due to the need for nutritional advice (p = .101).

Preferences regarding forms of training support

The most frequently preferred form of training support was fitness apps (49.5%, n = 248). Personal trainer services were chosen by 25.3% (n = 127), while 17.0% (n = 85) used both forms simultaneously. Not using any form of support was declared by 7.6% (n = 38). No significant gender differences were found in the distribution of responses (p = .395; Cramér's V = .077).

Assessment of app effectiveness compared to a personal trainer

The vast majority of participants (n = 466) believed that mobile apps are not equivalent to personal trainer services in terms of training effectiveness. Only 7 individuals expressed the opposite opinion, while 25 had no established view. No gender differences were found (p = .558).

In the open-ended question regarding participants' opinions on the impact of mobile fitness app development on the future of the personal trainer profession, especially in the context of the possibility of this profession being replaced by such technology, the majority of respondents (n = 287) believed that technology would not replace personal trainers. Their answers could be categorized as "not perceiving any threats to the personal trainer profession." For example: "Apps will never replace a trainer; there are many conflicting pieces of information online regarding exercise use and technique," "They will not replace; there is no direct interaction," "I learn more from sessions with a trainer – they correct and improve," "I think apps will not replace

ce working with trainers; a trainer checks if exercises are performed correctly,” “Apps will not replace a trainer; a phone cannot determine or check our technique or whether we are harming ourselves.” In these responses, the aspect of the importance of direct interaction for the correctness and safety of exercise performance comes through most strongly. However, 153 respondents considered the possibility of such replacement to be real, at least in the future. While in some answers this thread is not developed and no arguments are presented (“maybe it will happen one day,” “considering today’s technology, it is probable,” “of course, technology is advancing”), in some statements the topic of artificial intelligence appears (“if artificial intelligence continues to develop, devices will be able to check technique via camera”) or the specific context related to the profile of exercisers – shy, introverted, or those who cannot afford trainer services (“I think yes – for some people, it may be a good alternative, especially for those who are shy and introverted,” “definitely for people who cannot afford a personal trainer”).

Additionally, 32 people gave responses referring to the trainer’s own work, for whom apps may be a support in working with clients (“they can help trainers,” “apps are only a support for the work but not a replacement”).

Discussion

This study examined users’ perceptions of fitness applications and personal trainer services, focusing on perceived usefulness, trust in app-provided information, motivations for app use, and preferences regarding training support. The results indicate a clear preference for fitness apps, with 36.5% of respondents currently using them, compared to 14.0% currently utilizing personal trainer services. Furthermore, 43.5% of participants reported past use of fitness apps, while 52.1% had previously used personal trainer services. Notably, the higher rate of past versus current use of personal trainer services may reflect practical barriers such as cost, as affordability was one of the most frequently cited motivations for choosing fitness apps over professional coaching. These figures suggest that while personal trainer services remain widely experienced, digital solutions are becoming an increasingly dominant method of day-to-day fitness support.

It is also worth noting that the proportion of past app users (43.5%) exceeds that of current users (36.5%), and the same pattern is observed for personal trainer services (52.1% past vs. 14.0% current use). Although the cross-sectional design of this study precludes causal or longitudinal conclusions, this pattern may tentatively suggest a degree of discontinuation among app users – consistent with broader findings on digital health tool engagement, where initial adoption is not always sustained over time [23, 24]. Future longitudinal studies should examine whether app use is subject to dropout patterns similar to those documented in other digital health interventions, and what factors contribute to sustained versus discontinued use.

This trend is consistent with recent global reports. According to the American College of Sports Medicine, fitness apps have risen dramatically in popularity, ranking second among global fitness trends for 2025 – up from 20th place in 2023 [18]. Several studies confirm this widespread adoption across diverse user groups [19, 20, 21, 22], reinforcing the notion that apps are now a mainstream tool for promoting physical activity.

Regarding perceived usefulness, the majority of respondents considered fitness applications helpful in achieving their fitness goals, although only a small proportion regarded them as indispensable tools. This suggests that users perceive apps primarily

as supportive resources rather than complete substitutes for professional guidance.

Participants in this study cited accessibility, customization, and zero cost as key motivators for using fitness apps. These findings align with previous literature, which underscores the role of ease of use and affordability in the adoption of digital health tools [23, 24]. However, while cost-effectiveness is a key advantage, it also highlights a potential trade-off – particularly when compared to the personalized, in-person guidance offered by personal trainers. This could explain why only 14% of participants currently use personal training services, even though over half engaged with them in the past.

Interestingly, despite their popularity, fitness apps were perceived as insufficient in replicating the interactive and supervisory aspects of personal training. Most respondents recognized that apps could not match the personalized feedback, motivation, and technical oversight provided by a trained professional. This echoes the findings of Kozak et al. [25], who noted that while users appreciate the convenience of apps, they still value the expertise and accountability provided by personal trainers. Although fitness applications were widely used and generally perceived positively, respondents clearly distinguished them from personal trainer services. The overwhelming majority believed that mobile applications could not provide the same level of effectiveness as personal trainers. Open-ended responses highlighted several perceived advantages of trainers, including individualized feedback, exercise technique correction, accountability, safety supervision, and direct interpersonal interaction. These findings suggest that users view fitness applications and personal trainers not as direct competitors but as tools serving different functions within the exercise process. The use of fitness apps and personal trainers should not be viewed as mutually exclusive. Rather, they may serve complementary roles depending on the user’s needs, preferences, and resources. For instance, beginners or individuals with health concerns may benefit more from face-to-face support, while more experienced exercisers may find apps sufficient for tracking progress and maintaining routines. This dual utility suggests that future fitness solutions may benefit from hybrid models that integrate human expertise with digital platforms.

Moreover, the rapid advancement of artificial intelligence in fitness technologies could redefine the role of personal trainers. AI-powered tools are increasingly capable of providing real-time feedback, generating adaptive training plans, and delivering virtual coaching, thereby narrowing some of the differences between digital and human support, although they do not fully replace the expertise and interpersonal aspects of professional coaching [26, 27]. Participants’ views regarding the future role of fitness technologies further reinforce this conclusion. While some respondents acknowledged that advances in artificial intelligence may eventually allow applications to provide more sophisticated feedback and technique assessment, most did not believe that technology would fully replace personal trainers. Instead, respondents frequently described digital tools as complementary resources capable of supporting – but not substituting – the interpersonal, motivational, and supervisory functions performed by human professionals. These perceptions suggest that future developments in fitness support may be most effective when combining technological innovation with human expertise.

Several gender-related differences warrant further discussion. Women were significantly more likely to report weight loss as a primary training motivation and to exercise at home, which may reflect both sociocultural pressures related to body image and greater sensitivity to the social environment of the gym [25].

Consistently, women in this sample more frequently reported embarrassment about exercising in the presence of others as a motivation for app use (29.5% overall), and were more likely to rely on external training resources – including YouTube content and personalized coaching from trainers – rather than self-developed plans. These patterns suggest that for women, fitness apps may serve not only as practical tools but also as a means of reducing social anxiety associated with exercising in public settings.

Men, by contrast, more frequently reported muscle gain as a primary motive and greater reliance on self-directed training plans based on personal experience. Men also trained more frequently and for longer durations per session. These differences are consistent with established findings on gender-specific patterns of exercise motivation and information-seeking behaviour in fitness contexts [6, 7]. Importantly, despite these differences in motivation and behaviour, no significant gender differences were found in the overall assessment of app usefulness, trust in app-provided information, or preference for training support format – suggesting that the perceived value of fitness apps is broadly similar across genders, even where patterns of use diverge.

Limitations

This study has several limitations that must be acknowledged. First, the non-random sampling approach limits the generalizability of findings, as the sample may not reflect broader demographic or geographic diversity. Second, the reliance on self-reported survey data introduces potential biases, including the tendency of respondents to provide socially desirable answers. Third, the cross-sectional design of this study restricts causal interpretations and does not allow for conclusions regarding how users' preferences, behaviours, or levels of engagement with fitness apps and personal trainer services change over time. In particular, it is not possible to determine whether the observed differences between current and past users reflect deliberate discontinuation, shifting preferences, or situational factors. Future research employing longitudinal designs would enable a more nuanced understanding of the trajectories of app adoption and dropout, as well as the long-term comparative effectiveness of digital and in-person fitness support.

Conclusions

The primary motivations for using fitness apps – such as planning and monitoring training progress, tracking diet and cost-effectiveness – highlight a trend towards self-management and accessibility in fitness routines. These findings suggest a trend toward more self-directed fitness practices enabled by digital tools. Fitness apps are perceived as helpful for achieving fitness goals, and the information provided by them as "rather professional" or "professional". It suggests that users have a high level of trust in the content provided by these apps. However, despite the popularity of fitness apps, a majority of users believe that apps cannot replace personal trainers in terms of training effectiveness. This implies a persistent value placed on personalized guidance and direct interaction provided by trainers, which technology has yet to replicate fully.

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