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Ejercicio tradicional vs. clases de fitness en línea: una comparación basada en el disfrute de los participantes

Traditional exercise vs. online fitness classes: a comparison based on participants' enjoyment

*Apostolia Ntovoli, **Athanasia Zourladani, **Konstantinos Alexandris
*Frederick University (Cyprus), **Aristotle University of Thessaloniki (Greece)

Resumen. El ejercicio en línea se ha desarrollado como una alternativa al ejercicio tradicional en clase durante el periodo de COVID-19. Sin embargo, se ha demostrado que es un modelo de negocio complementario prometedor para muchos clubes y asociaciones de fitness y ejercicio. Este artículo tiene como objetivo comparar el disfrute entre el ejercicio tradicional y el ejercicio en línea por transmisión de video en relación con la percepción de calidad del servicio por parte de los participantes. Los datos se recopilaron mediante una encuesta en línea que tuvo lugar en Grecia. Participaron en el estudio trescientas cuarenta y ocho personas (N=348). El disfrute se midió con la Escala de Disfrute de la Actividad Física (PACES). Los resultados indicaron puntuaciones de disfrute más altas en las clases tradicionales que en las clases en línea. El análisis de conglomerados reveló tres grupos de niveles de disfrute con el ejercicio en línea: alto, moderado y bajo. Un análisis factorial exploratorio mostró la existencia de cuatro dimensiones de calidad del servicio, ajustadas al contexto del ejercicio en línea (resultado, comunicación / interacción, programas de ejercicio en línea, plataforma en línea). Se revelaron diferencias estadísticamente significativas en las cuatro dimensiones de calidad del servicio entre los tres grupos de conglomerados de disfrute. Estos resultados proponen que las clases en línea son menos disfrutables que las tradicionales, pero aún con buenas puntuaciones de disfrute. Por lo tanto, los clubes de fitness deberían seguir explorando el desarrollo adicional de sesiones de fitness en línea como un servicio complementario para sus miembros. El uso de tecnología en línea moderna y la capacitación adicional de los profesionales del ejercicio pueden ayudarlos en esta dirección.
Palabras clave: Ejercicio de transmisión de video en línea, Disfrute, Calidad del servicio

Abstract. Online exercise has been developed as an alternative to traditional in-class exercise during the period of COVID-19. However, it has been shown to be a promising supplementary business model for many fitness and exercise clubs and associations. This paper aimed to compare enjoyment between traditional and online video streaming exercises and in relation to participants' perception of service quality. The data were collected with an online survey that took place in Greece. Three hundred and forty-eight individuals participated in the study (N=348). Enjoyment was measured with the Physical Activity Enjoyment Scale (PACES). The results indicated higher enjoyment scores in the traditional classes than in the online classes. The cluster analysis revealed three enjoyment level groups with online exercise: high, moderate, and low. An exploratory factor analysis showed the existence of four service quality dimensions, adjusted to the context of online exercise (outcome, communication / Interaction, online exercise programs, online platform). Statistically significant differences were revealed in all four service quality dimensions among the three enjoyment cluster groups. These results propose that online classes are less enjoyable than the traditional ones, but still with good enjoyment scores. Fitness clubs should therefore continue exploring further development of online fitness sessions, as a complimentary service to their members. The use of modern online technology and the further training of exercise professionals can help them in this direction.
Keywords: Online Video Streaming Exercise, Enjoyment, Service Quality

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Apostolia Ntovoli
apostolia.ntovoli@gmail.com

Introduction

Using technology in order to deliver fitness classes online is today an alternative operational model for many fitness clubs worldwide. With 64.6% of the global population being active Internet users, the fitness market was ready for the widespread adoption of online fitness services ahead of the pandemic (Petrosyan, 2023). In a recent report by Rizzo (2021), it was announced that the 10.7 billion values of the fitness industry have been undergoing serious changes due to the use of technology for service delivery. First of all, the online fitness industry is projected to be worth more than $59 billion by 2027, growing at a rate of 30.0% to 33.1% per year. Since 2017, on-demand fitness spending is up 128%, while traditional gyms grew just 6%. Due to the demand for customized and increasingly niche fitness class offerings, the live-streaming fitness market is expected to grow by 35% per year till (Alexandris, Kenanidis, Balaska & Ntovoli, 2020; Rizzo, 2021).

Online sessions can be a successful alternative or an additional strategy to help fitness clubs enrich their services and generate new income. It is not however clear today if this online environment can motivate participants and offer enjoyment in the same way that face-to-face classes offer in the context of a gym (Taylor, 2020). It is not also clear if this method of delivery is associated with the psychological benefits of mainstream exercise. Several factors can also influence the quality of online exercise and the outcomes. So, aspects related to the skills of the instructors, their delivery method, the friendliness of the online platforms, and the credibility of the programs are important issues that need to be considered and studied. It is not also clear if such classes are perceived as enjoyable by participants, what service quality means in such sessions, and how this quality influences participants' experience. This paper aims to compare enjoyment between traditional exercise and online video streaming exercise in relation to participants' perception of service quality and intention to continue participating in these sessions. There has been very limited research so far to directly compare enjoyment between the two different methods of exercise delivery. There has also been no published research so far to develop a scale to measure service

quality in the context of online exercise. This paper has therefore practical implications since it can show exercise providers if investments in online exercise are a good strategy or not. It has also academic contribution since for the first time the construct of enjoyment is used to test the delivery modes in relation to service quality and behavioral intentions. Considering the above discussion this paper aimed to:

• Compare exercisers' enjoyment levels in traditional and online video-streaming fitness sessions.

• Segment online fitness exercisers based on enjoyment levels by clustering them.

• Measure service quality in the setting of online video streaming fitness sessions and compare the scores of the enjoyment clusters in the service quality dimensions.

Theoretical background

Virtual training

It has been reported that consumers have increased spending on digital fitness by 30% to 35% in comparison to before the pandemic (Rizzo, 2021). Out of those that join a live stream, 41% pay a monthly membership, 19% pay for a class pack, and 15% pay for individual classes. These online sessions have obviously unique characteristics both in terms of their operation and the instructors' delivery approach. Several commercial platforms are used, such as Zoom, Instagram Live, FaceTime, or YouTube. Some companies have even developed their specialized commercial platforms (Taylor, 2020). Fitness instructors should therefore adopt to these new changes by learning both to use the platforms and change their exercise delivery style.

There is limited research on behavioral and attitudinal aspects of exercise participants in online fitness sessions. In a recent study, changes were reported in users' behavior between live streaming and on-demand fitness. The majority (72%) of users surveyed said that they prefer the flexibility of online fitness instead of the traditional "gym membership" method where they had to exercise during the gym's hours and busy times (2020). It seems also that online exercise can promote a group exercise setting. When exercising in groups participants reported to cycle 21% further and exercise 10% longer on average (2020).

Still, it is not clear what aspects of virtual training sessions are important for creating a motivating and enjoyable environment (Ntovoli et al., 2024). According to Baena-Arroyo, García-Fernández, Gálvez-Ruiz & Grimaldi-Puyana (2020), who conducted a study in Spain and compared participants in traditional and virtual classes reported that customer satisfaction was a more important variable among participants in virtual classes than in traditional classes, in terms of its predictive ability on their intentions to continue using these programs. There is no research so far exploring how enjoyable virtual classes are perceived by participants and what service quality aspects influence their experience.

Exercise Enjoyment and Perceived Service Quality

Exercise enjoyment is the process of experiencing joy, pleasure, fun, and happiness during participation (Raedeke, 2007; Teques, Calmeiro, Silva & Boreggo, 2017). It is well-documented today that enjoyment is one of the most powerful predictors of exercise behavior (Deci & Ryan, 2008). Intentions, commitment, persistence, adherence, involvement, and well-being are among the consequences of exercise enjoyment (Ábrahám, Velenczei & Szabo, 2012; Astuti, Karacam, Orhan & Adıgüzel, 2024; Deci & Ryan, 2008; Nielsen et al., 2014; Rodrigues et al., 2018; Teques et al., 2017). It is therefore an important variable to be studied since in the case of fitness it will lead to consumer loyalty. While intrinsic motivation has been reported to be an important antecedent of enjoyment (Aznar-Ballesta & Vernetta Santana, 2022; Nielsen et al., 2014; Rodrigues et al., 2018; Rodrigues, Teixeira, Cid & Monteiro, 2021; Scanlan, Carpenter, Schmidt, Simmons & Keeler, 1993; Wankel, 1985), service related factors obviously play a role, since positive customer experience can create a motivating exercise environment that can contribute towards participants' enjoyment, while negative experience can be a demotivating factor (Alexandris, Karagiorgos, Ntovoli & Zourladani, 2022; Falout, Elwood & Hood, 2009; Ketzer Caliendo dos Reis et al., 2024; Polyakova, Karagiorgos, Konstantinidis, Ntovoli & Alexandris, 2024; Rodrigues et al., 2021). In one of the very few studies that tested the influence of technology on exercise enjoyment, James, Deane & Wallace (2019), reported that fitness technologies, which help participants to set goals, inform them about their progress, but also create perceptions of socialization, are likely to increase their enjoyment levels because they can keep them motivated.

Perceived service quality has been defined as a global judgment or attitude relating to the superiority of a service (Zeithaml, Bitner & Gremler, 2006). The service quality literature is very rich. It is beyond the objectives of this study to conduct a detailed review of the service quality literature. Different models have been proposed to measure service quality. Having as a base the SERVQUAL model (Parasuraman, Zeithaml & Berry, 1988), a number of adjusted models were proposed in the sport service literature. However, none of these has been developed for online exercise, which has some unique elements that need to be considered. These elements relate to attributes of the online platform and the distant interaction between participants and the exercise instructor.

In the present study, the experience of online video streaming exercise was tested against clusters of participants with different enjoyment levels. The goal was first to see how much enjoyment is felt in online fitness classes and second to test which aspects of service quality influence the development of exercise enjoyment. As previously noted, there has been no research so far on testing enjoyment among online classes' participants and in relation to internal and external factors.

Research Hypotheses

Based on the above literature review the following hypotheses were stated:

- Exercisers in traditional fitness sessions will have higher satisfaction scores than exercisers in online video-streaming sessions
- Cluster groups with different enjoyment levels will have statistically significant differences in enjoyment scores among them.
- Cluster segments with different enjoyment scores will have statistically significant differences in terms of service quality perceptions.

Methodology

The data were collected with an online survey that took place in Greece during 2021. The e-questionnaire was posted in the professional networks of the authors and fitness-related sites and blogs. All the respondents at the time of the research were participating in online video streaming fitness sessions, but they had also experienced face-to-face / traditional fitness classes. Three hundred and forty-eight questionnaires (N=348) were collected. Enjoyment was measured with the Physical Activity Enjoyment Scale (PACES - Kendzierski & DeCarlo, 1991). This is a one-dimensional scale that includes 18 bipolar statements that anchor the ends of a 7-point response scale. This is a well-established scale in terms of its validity and reliability (Greene, Greenlee & Petruzzello, 2018; Kendzierski & DeCarlo, 1991; Rodrigues et al., 2021). Exercisers' service quality perceptions of online fitness sessions were measured with a 21-item questionnaire that was developed for the need of the current study, aiming to measure the service quality of online fitness classes. In the absence of a published scale measuring the service quality of online exercise sessions, the original SERVQUAL (Parasuraman, Zeithaml & Berry, 1998) and its adjustment in the sport participation literature (Alexandris, Theodorakis, Kaplanidou & Papadimitriou, 2017; Alexandris, Zahariadis, Tsorbatzoudis & Grouios, 2004; Kang, James & Alexandris, 2002) was used as a basis. Adjustments were made since they were not fully applicable in the context of online exercise. It must be noted that there is no published service quality questionnaire for online exercise. The specific context items were generated after a critical review of the existing scales, as noted above, and in consultation with fitness instructors and fitness club owners. Participants were asked to evaluate 21 aspects related to the online programs on a 7-point Likert scale with anchor points 1- Very Bad to 7-Excellent.

In terms of the demographic information, 86.5% of the sample were females, 48.8% were married and 43.3% were single individuals. In terms of the education level, the majority had post-graduate education (42.1%), followed by graduates (31.1%), and technological education (9.2%) (Table 1). The average age was 39.4 years old.

Results

Exercise Behavior

In terms of exercisers' behavior, 47.9% reported that they intend to continue online training, 40.8% reported that they will stop it and 11.4% had not decided yet. Of those who reported that they would like to continue with online training, 25.7% reported that they would like to combine online with traditional classes, while 22.2% reported that they would like to do solely online exercise.

Table 1.
Profile of the Sample (N and %)

Gender	Marital Status	Education Level
Males: 47 (13.5%)	Married: 168 (48.8%)	Primary –Secondary level: 40 (11.5%)
Females: 302 (86.5%)	Single: 149 (43.3%)	Vocational Education: 21 (6.1%)
	Divorced: 27 (7.8%)	Technological Education: 32 (9.2%)
		Graduates: 108 (31.1%)
		Post-graduate: 146 (42.1%)

Exploratory Factor Analysis

Since the service quality scale was developed for the needs of the current study and no pre-identified dimensions were set, an exploratory factor analysis was performed. The components with eigenvalues greater than 1.0 were retained and rotated with both orthogonal and oblique rotations. Both methods gave similar results. Orthogonal rotation was retained for conceptual simplicity and ease of description (Tabachnick & Fidell, 2014). The analysis revealed a conceptually clear factor structure, with limited cross loadings (Table 2). Four factors emerged, which accounted for 73.7% of the variance. The four factors were named as follows: a) Outcome (six items): This is a common dimension that has been revealed in previous studies that investigated service quality in sports (Alexandris et al., 2004; Alexandris, Du, Funk & Theodorakis, 2017; Theodorakis, Alexandris, Tsigilis & Karvounis, 2013). It refers to participants' perceptions about the outcome of their exercise participation. This outcome is evaluated against the expected positive health (physical or psychological) related; b) Communication / Interaction (six items): it includes items related to the quality of the communication between the instructors/management and the exercisers, as well as instructors' ability to respond promptly to exercisers' requests, solve their problems and meet their needs (Brady & Cronin, 2001). This is one of the common factors that have been included in previous sport service quality models, such as the SERVQUAL (Parasuraman et al., 1988) and the adjusted to-sport versions (Alexandris et al., 2004) Online Exercise programs (six items): it includes items related to the range, delivery style and reliability of the online exercise programs. This factor corresponds to the core dimension of service quality that has been included in previous sport service quality models (Alexandris et al., 2004); d) the online platform (three items): this is a unique factor applied to online training. It includes items related to the de-

gree to which the online platforms used were friendly, accessible, and with good sound performance and picture quality.

Table 2.
Exploratory Factor Analysis of the Quality Scale

Service Quality Items	Outcome	Communication / Interaction	Online Platform	Online Programs
Increased my energy	.82			
Improved my physical health	.87			
Improved my mood	.86			
Improved my psychological health	.84			
Improved my fitness level	.85			
Improved my appearance	.78			
Quality of communication with the club		.76		
Quality of communication with the instructor		.81		
Quality of Response		.67		
Speed of Response		.79		
Degree of Interactivity		.64		
Adherence to the schedule		.45		
Audio and video quality of the platform used			.71	
Ease of using the platform			.81	
Friendliness of the Platform			.82	
Level of difficulty of the programs				.77
Degree of motivation				.54
Reliability of the programs				.40
Variety of programs				.64
Presentation of programs				.41
Interest in the Programs				.48
Eigenvalue	11.4	2.1	1.2	1.1
% of variance explained	54.3	10.4	5.0	4.0

Reliability Analysis and Descriptive Statistics

Cronbach's alpha scores were calculated to test the internal consistency of the scale items. As shown in Table 3, the values ranged from .87 to .96, showing that the scales were reliable in terms of their internal consistency. In terms of the descriptive statistics, the results indicated that the Communication / Interactive sub-scale had the highest mean score (Mean=5.87), followed by the Outcome (Mean=5.84), the Online Platform (Mean=5.75) and the Online Exercise Programs (Mean=5.52).

Table 3.
Descriptive Statistics and Reliability Analysis

Sub-Scales	Mean	Std. Deviation	Coefficient alpha
Outcome	5.84	1.1	.95
Communication / Interaction	5.87	1.1	.90
Online Platform	5.75	1.1	.88
Online Exercise Programs	5.52	1.0	.87
Enjoyment Online programs	5.37	1.2	.96
Enjoyment Traditional Programs	6.05	1.1	.88

Enjoyment in traditional and online classes

An independent sample t-test was used to compare exercisers' mean scores in enjoyment in traditional and online classes (Table 4). The results revealed a statistically significant difference (t=7.38, p<.001). The mean score in the traditional classes (Mean 6.05) was statistically significantly higher than the mean scores in the online classes (Mean=5.37).

Table 4.
Enjoyment Scores in Traditional and Online Classes (t-test)

	Enjoyment Traditional Classes	Enjoyment Online Classes
Mean (Std)	6.05 (.96)	5.37 (1.2)

t=31.7, p<.001

Creating Enjoyment Groups

A cluster analysis based on the scores of the enjoyment scale was used to classify exercisers into segments in order to see how many of them perceived the online classes as fun and satisfying (Table 5). The Ward method using K-means clustering was used. The analysis indicated that a three-group solution appeared to be the most meaningful. This was supported by the ANOVA and subsequent post-hoc analysis (F=.881.4, p<.001). The three segments were defined as High Enjoyment (N=191), Moderate Enjoyment (N=116), and Low Enjoyment (N=35) groups.

Table 5.
Cluster Analysis Based on Enjoyment Scores

	Low enjoyment N=35	Moderate enjoyment N=116	High enjoyment N=191	F
Mean Scores	2.66	4.71	6.29	881.4

p<.001

Exercise Enjoyment and Service Quality

A MANOVA was used to test the three cluster groups' scores (independent variable) in the service quality dimensions (dependent variables). Table 6 shows the segments with their mean scores in the four service quality dimensions. The MANOVA was significant (Wilks' lambda=.31, F=64.63, p<.001), with a medium effect size (Partial Eta Squared ($\eta 2$) =.44) (Cohen, 1992). Also, Levene's test was not violated for each factor at p<.05. A univariate F-test revealed that the four factors of service quality were significantly different across the three enjoyment level groups (p<.001): Outcome: F=316.9, $\eta 2$=.65, Communication / Interaction: F=62.8, $\eta 2$=.27, Online Platform: F=52.8, $\eta 2$=.23, Online Programs: F=149.1, $\eta 2$=.49. A Follow-up univariate analysis of variance (ANOVA) and Scheffe's post-hoc comparisons revealed statistically significant differences among all the three groups.

Table 6.
Service Quality Perceptions by Enjoyment Level Groups (MANOVA)

Enjoyment level	N=348	Outcome	Communication/ Interaction	Online Platform	Online Programs
High	191	6.5	6.2	6.1	6.3
Moderate	116	5.3	5.2	5.4	5.2
Low	35	3.4	4.4	4.5	4.1

Wilks' lambda=.31, F=64.63, p<.001

Discussion and Conclusions

The first objective of the paper was to compare exercisers' enjoyment levels in traditional and online video-streaming fitness classes. Exercisers found traditional classes more enjoyable than online ones. However, while the difference in the scores between the two types of exercise in relation to enjoyment was statistically significant, the

mean score of enjoyment in online classes was not low. This is a promising finding for the further growth of online classes, as an additional service of fitness clubs. It might be an alternative or a complementary model to the existing ones, maximizing resources from new or existing target groups. This can be the case for individuals who prefer to exercise in private settings and not in social settings, such as group training in fitness clubs.

In terms of exercising online, half of the respondents would like to see a combination of online and traditional classes; and almost one out of five of the exercisers were thinking of replacing traditional classes with online ones. These findings support the views that have been expressed that online classes can be an alternative or an additional service to club members (Baena-Arroyo et al., 2020; Gale, 2020; Ratten, 2020) and explain the increased popularity of online services among fitness clubs today as previously reported (Rizzo, 2021). For some individuals this mode of delivery can also create a sense of privacy; intrapersonal constraints related to perceptions about discomforts in social environments can be overcome (Alexandris et al., 2017; Balaska, Alexandris, Kouthouris & Polatidou, 2012). This is particularly applicable in the cases of virus spread which was the case during the COVID pandemic. As previously noted, some individuals do not feel comfortable exercising in social settings. For these individuals, who face intrapersonal constraints, online exercise can be a solution.

The second objective of the study was to explore exercisers' enjoyment levels in online classes. The results of the cluster analysis revealed three clear groups that had statistically significantly different mean scores among them. The majority of participants (55.8%) were classified within the group with the high enjoyment level, followed by 33.9% of those classified within the moderate enjoyment level group. This is an encouraging finding since it shows that fitness clubs were, to a large degree, successful in adopting fast and delivering fun, and motivating online classes, which met the expectations of the participants. These results propose that fitness club managers should explore the perspective of digitalizing their services and modernizing their facilities, with the use of online services. This trend is expected to develop in the following years.

The third objective of the study was to study exercisers' perceptions of the quality of the online sessions and compare the scores of the three enjoyment clusters in the quality dimensions. First of all, the descriptive statistics revealed medium to high scores in all four quality dimensions. The high score of the outcome dimension is a finding that should be noted. It supports previous reports that exercise in a home environment is a very important factor for individuals in maintaining their physical and psychological health (Hammami, Harrabi, Mohr & Krustrup, 2022; Jimenez-Pavon, Carbonell-Baeza & Lavie, 2020; Theodorou, Ntovoli & Alexandris, 2024). The majority of the exercisers felt that the online training helped them to improve their mood, energy, physical conditioning, and psychological health. This is an encouraging finding since it proposes that online training can be to a large degree successful in meeting exercisers' needs. More research is however required in order to see the real physical and psychological benefits of online exercise by also using physiological measures which can be done in a lab setting. It has to be noted that the results of this study express participants' perceptions and not real benefits. However, perceptions and attitudes are important variables that determine consumer-related outcomes.

In terms of the comparisons among the three enjoyment clusters' scores in the service quality dimensions, the results showed statistically significant differences among all the groups. Service quality perceptions are therefore one of the factors that contributes to exercisers' enjoyment in online classes, supporting the findings of Baena-Arroyo et al., (2020). The most significant differences were found in the Outcome and Online Exercise Programs dimensions, followed by the Communication / Interaction and Online Platform ones. In all these dimensions the scores decreased from the high to the low enjoyment groups. As previously discussed, the majority of the previous studies reported that internal factors related to the participants' motivation are the most important antecedents of enjoyment (Alexandris et al., 2021; Nielsen et al., 2014; Rodrigues et al., 2018; Scanlan et al., 1993; Wankel, 1985). The results of the present study propose that external factors related to the programs' quality can also be considered as antecedents of enjoyment. This can be due to the specific nature of the contexts. Online programs have a high perceived risk for participants both in terms of quality and safety. Subsequently, participants need to be reassured that the programs are designed and delivered following all the safety protocols and according to their needs and expectations. The use of specialized phone applications can be helped in this direction. These applications can provide the required physiological information (e.g., heart rate) in order for participants to have a sense of safety when exercising.

In conclusion, the results of the study revealed that online video streaming exercise classes were less enjoyable than the traditional ones, but still with satisfactory enjoyment scores. Fitness clubs should therefore continue exploring digitalizing their services and further development of online fitness sessions, as a complimentary service to their members, or even as separate services. There are individuals who will be attracted by online exercise, due to the privacy that they offer and the less time that they require. It is expected that with the use of modern technology, these programs can become more attractive. Virtual reality, artificial intelligence, as well as technology related to online sound and picture effects, can offer opportunities for online exercise to create as many as similar experiences to the on-site one. There are several specified commercial web applications today that should be considered. Exercise providers should consider the cost of investment in such programs in relation to the value of the club and the perceived image that they can contribute to. The pricing of these online services is an issue that should be discussed

since they will have to be incorporated within the normal membership fees or they will have to be priced as extra services. This issue was not explored in the present study Bitner but requires further research in relation to the targeting and positioning of the clubs in the market.

Limitations and Suggestions for Future Research

This is one of the very few studies that focused on online fitness exercises' behavior. There are several limitations that show the same possible topics for future research. The sample of the study is one of the first issues that should be pointed out. As previously presented, the data were collected only from fitness participants in Greece. This is a unique sample with specific characteristics. Future studies should validate the results on different populations, which can be participants of different sport and fitness activities, as well as individuals from different socio-demographic backgrounds. Collection of data in other countries could also help to validate the results and the research instruments used in order to consider the cultural aspects of the study population. Furthermore, the data were collected through the professional network of the researchers and fitness blogs. This is a limitation, as the sample can be biased and not representative of the study population. The sample size, which gives a certain degree of sampling error and in combination with its non-probability nature, does not let us generalize with confidence. The cultural aspect of the sample should also be pointed out. A cultural comparison would also help to validate the instruments used in the present study, such as the service quality scale and the exercise enjoyment questionnaire. It would be interesting to have data from other countries in order to do cross-cultural comparisons in order also to consider the differences in the fitness provision. There are countries, such as England and Germany, for example, in which online services existed before the pandemic, and the members of their fitness clubs might have had a different technology education background and experience in their exercise behavior. A note should be made about the psychographic and behavioral profile of exercise participants. Obviously, there will be several variations in the attitudes towards technology among individuals with different psychographic profiles (e.g. motivations, constraints, personality) and behavioral profiles (e.g., beginners vs. experienced participants). The type of programs (group vs. individuals) that individuals prefer to participate in can also play a role in their attitudes.

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Datos de los/as autores/as y traductor/a:

Apostolia Ntovoli	ntovoli.apostolia@gmail.com	Autor
Athanasia Zourladani	azourladani@phed.auth.gr	Autor
Konstantinos Alexandris	kalexand@phed.auth.gr	Autor
Apostolia Ntovoli	apostolia.ntovoli@gmail.com	Traductor/a