

Research article

How Do Fitness Club Members Differentiate in Background Characteristics, Exercise Motivation, and Social Support? A Cross-Sectional Study

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Abstract

Fitness clubs are one of the largest exercise arenas worldwide. Still, membership withdrawal and exercise dropout rates are 40-65% in the first six months. One important approach to retaining members may be to create an environment that feels inclusive, and clusters members with mutual needs and interests. Increased knowledge in this field can provide valuable information that leads to more effective exercise promotion strategies and better retention rates, important to the long-term success of the gym and public health. Thus, we aimed to compare background factors, motivation, and social support between members of multipurpose (wide range of exercise concepts/facilities, middle to high membership fee), fitness-only (low membership fee), and boutique (one or two specialized exercise concepts, high membership fee) fitness clubs. A total of 232 members from multipurpose ($n = 107$), fitness-only ($n = 52$), and boutique gyms ($n = 73$) were recruited for this cross-sectional study. Data included background variables (age, gender, body weight and height, smoking, total household income, occupation, education, and general health), exercise behaviour, exercise motivation, and social support. A one-way between-group ANOVA with Bonferroni correction or a chi-square test was used as appropriate. Multipurpose and fitness-only members were older (mean diff: 9.1 years, $p < 0.001$) and exercised less (mean diff: 1 - 1.2 sessions/week, $p < 0.001$) than members from boutique clubs. Compared with multipurpose and fitness-only members, members from boutique clubs reported the highest autonomous motivation (intrinsic regulation: mean diff: 0.3, $p = 0.030$), and perceived greater social support from family/friends (mean diff: 6.4 to 6.6, $p < 0.001$). Boutique members were younger, exercised more, and reported higher autonomous motivation and social support than multipurpose and fitness-only members. Our results suggest that exercise enjoyment and a social community, the “philosophy” of boutique gyms, may be important for regular exercise.

Key words: Exercise behavior, fitness club industry, physical activity, public health.

Introduction

Exercise is medicine and mandatory for optimal health (Ekelund et al., 2015, Warburton and Bredin, 2017). Therefore, much research has been directed toward understanding the determinants of regular physical activity and exercise (Bauman et al., 2012). Yet, less is known concerning how different activity settings may influence participation (Wendel-Vos et al., 2007). The different activity settings appear to be distinct social phenomena and may make participation in physical activity and exercise more or less likely (Duncan et al., 2005, Wendel-Vos et al., 2007,

Ulseth, 2008, Eime et al., 2015, Deelen et al., 2018). A fitness club represents one popular activity setting and hold equipment for group and individual exercise. Worldwide, there are about 185 million members and 210 000 clubs, representing a 54% increase over the last decade (The IHRSA Global Report 2020). However, less than 40% of the members exercise in the fitness club regularly and the dropout rates are high (Kopp et al., 2020, Rand et al., 2020, Sperandei et al., 2016, Middelkamp et al., 2016, Gjestvang et al., 2021). Thus, the contribution to public health is limited (Ekelund et al., 2015). Despite this, research on fitness club members exercise behavior is limited in quantity and quality (Gjestvang, 2022, Middelkamp and Steenbergen, 2015). For this reason, much more research is needed to gain insight related to this specific setting and exercise behavior.

Fitness clubs differ a lot in profile and may attract different types of individuals from the whole lifespan. Boutique clubs (such as CrossFit gyms) have a niche in the high-cost segment, focusing on customer satisfaction, cohesion, high-intensity workouts and are typically conducted in a group exercise setting by a qualified instructor (Dominski et al., 2020, Sibley and Bergman, 2018, Bailey et al., 2019, Garcia-Fernandez et al., 2020). There are also fitness clubs in the low-cost segment having basic equipment, appealing broadly to customers that do not want to pay for services they do not use. Further, multipurpose fitness clubs, with middle to high membership fees, offer a wide range of exercise equipment and group exercise classes containing different concepts and durations. The members are likely to have different reasons for their membership and exercise goals, whether that be weight loss, an increase in physical fitness, or socialization. Thus, one important approach to attracting and retaining members may be to cluster them together with their related needs and mutual interests, so that all members tend to have something in common. Studies suggest that individuals tend to group themselves with others who share similar interests and attitudes (Altenburger and Ugander, 2018). In a fitness club setting, this may create an environment that feels inclusive and safe, potentially increasing exercise participation (Riseth et al., 2019, Dionigi and Lyons, 2010).

It is a knowledge gap in the literature, regarding possible differences in background factors (such as age, household income, and occupation), exercise motivation, and social support between members from different fitness club business models (Fisher et al., 2017, Gjestvang et al., 2020, Marin et al., 2018, Whiteman-Sandland et al., 2018).

First, examining the background factors of members in different fitness club business models may gain insight into the different needs and expectations of individuals about their fitness club experience (Jang and Choi, 2018, Brown et al., 2017). Understanding these differences allows gyms to tailor their services to better meet the needs of their members, which can improve member retention. Second, motivation plays a crucial role in determining whether an individual will adhere to exercise or not (Teixeira et al., 2012). A common theoretical framework of motivation is the Self-Determination Theory proposing that by satisfying individuals' three psychological needs (autonomy, competence, and relatedness), autonomous motivation may increase (Standage and Ryan, 2012, Ryan and Deci, 2000, Rodrigues et al., 2018). In the context of a fitness club the need for e.g., relatedness can be satisfied by creating a supportive and inclusive environment where members feel a sense of belongingness. The different fitness club business models may also attract people with different motivational regulations for exercise. For instance, a boutique club may attract individuals who are motivated by exercise of itself (Dominski et al., 2020, Marin et al., 2018), while a fitness-only gym may attract those who are motivated by the low cost (Leon-Quismondo et al., 2020). Thus, understanding exercise motivation among these members may help fitness clubs tailor their marketing strategies and services to better meet the needs of their potential members (Garcia-Fernandez et al., 2018). Lastly, social support from friends and family is found to be a key factor for regular exercise behavior (Eynon et al., 2019, Scarapicchia et al., 2017). Research has consistently shown that individuals who receive social support are more likely to adhere to exercise (Gjestvang et al., 2021, Eynon et al., 2019). By investigating social support among different business models of fitness clubs, we can identify which types of gyms may provide a more supportive environment for individuals to exercise.

Research is needed to give a more complete picture of those that choose to exercise at a fitness club. Overall, increased knowledge in this research area may provide valuable insights that can ultimately lead to more effective exercise promotion strategies and improved retention rates, which is crucial for both the long-term success of the gym and public health.

The aim of this study was to compare background factors, exercise motivation, and social support in members of multipurpose (a wide range of exercise concepts and facilities, middle to high membership fee), fitness-only (equipment for individual exercise, low membership fee), and boutique (one or two specialized exercise concepts, high membership fee) fitness clubs. We hypothesized that different fitness club business models attract individuals with dissimilar background characteristics, motivation for exercise, and social support.

Methods

This cross-sectional study aimed to compare differences in membership characteristics, including background variables, exercise motivation, and social support between members from fitness clubs with three different business

models (Table 1). Fitness club members were recruited between August 2020 and November 2020. All were invited to take part in the study by an email invitation from their fitness club chain or by an advertisement on Facebook. During the recruitment period, fitness clubs were required to adhere to COVID-19 regulations for environmental health protection. These regulations included implementing measures such as social distancing by spacing out exercise equipment, restricting the number of participants in group exercise classes, closing saunas/steam rooms, and regularly cleaning the facilities. When consenting to participation by electronic informed consent (SurveyXact 8.2) the participants also reported their fitness club segment affiliation by the following question: "What kind of fitness club are you a member of?". Response options: "Multipurpose gym such as SATS, Trento, JobbSprek, Myrens, Family Sports Club, 3T, and Athletica", "Fitness-only gym such as EVO, Fresh Fitness, 24/7", and "Boutique gym such as Crossfit". Eligibility criteria were: ≥ 18 years, a member at one of three different fitness club business models, and motivated to respond to an electronic questionnaire requiring about 20 minutes to complete. In an attempt to keep a count on the response rate, we first distributed recruitment directly per email to chief executive officers (CEOs) in chosen fitness club chains. The CEOs were asked to respond with the number of members who received information regarding our study and link for participation. Unfortunately, most CEOs did not provide the actual number of invited members, and the number of recruited participants was also not satisfactory. Thus, we decided to recruit more widely on social media. A total of 269 members expressed interest to participate in the study, of whom 36 did not respond to the questionnaire after informed written consent. One questionnaire response was incomplete and therefore not taken further for analysis. Hence, 232 participants were included in the present dataset.

Table 1. Fitness club business models included in the present study.

Fitness club segment	Membership fees	Facilities/concepts
Multipurpose (n = 107)	Middle to high (44\$ to 133\$)	Resistance and cardio exercise rooms, group exercise classes, and a wide range of exercise concepts
Fitness-only (n = 52)	Low (20\$ to 36\$)	Resistance and cardio exercise rooms for individual exercise
Boutique (n = 73)	High (118\$ to 148\$)	One or two specialized exercise concepts

Questionnaire

An electronic questionnaire was used to obtain information about background variables (Table 2), exercise behaviour, exercise motivation, and social support. All questions were close-ended.

Measures of the stages of the self-determination continuum concerning exercise motivation were based on a Norwegian version of the validated *Behavioral Regulation in Exercise Questionnaire-2* (BREQ-2) (Markland and Tobin, 2004), having good internal consistency for all five

subscales (Cronbach's $\alpha > 0.7$) (Markland and Tobin, 2004, Murcia et al., 2007). In our study, Cronbach's α for five subscales were: 0.82 (intrinsic regulation), 0.57 (identified regulation), 0.79 (introjected regulation), 0.65 (external regulation), and 0.50 (amotivation).

Measures of social support for exercise were based on a validated survey developed by Sallis et al. (1987), hav-

ing acceptable test-retest reliability and internal consistency (Cronbach's $\alpha > 0.7$) (Sallis et al., 1987, Golaszewski and Bartholomew, 2019). Internal consistency of the social support questionnaire was high as determined by the Cronbach's α : 0.88. Table 3 summarize questionnaire specifics used to measure exercise motivation and perceived social support for exercise.

Table 2. Questions and corresponding response options used to obtain data on background variables.

Dimension assessed	Question	Response options
Age	What is your age?	Age in years
Gender	What is your gender?	"Male", "Female", or "I am gender-neutral"
Body weight	What is your current body weight in kilograms (kg)?	Body weight in kg
Body height	What is your body height in centimeters (cm)?	Body height in cm
Smoking	Do you currently smoke?	"Yes" or "no"
Educational level	What is the highest grade or level of school you have completed?	"Primary school or high school", "college/university <4 years", "college/university >4 years", or "other education"
Total household income	Which of these categories best describes your total combined family income for your household for the past 12 months?	"Below \$59 999", "between \$59 999-99 999", "over \$100 000", or "I do not want to answer"
Cohabitation	What is your current marital status?	"Single without children", "single with children", "married or domestic partnership without children", "married with children", or "other"
Occupation	What is your currently employment status?	"Employed in public administration, private company or self-employed", "student or a trainee", "unable to work, out of work or looking for work", "retired", or "other"
General health	In general, how would you rate your health today?	"Excellent", "good", "moderate", "fair", or "poor"

Table 3. Questionnaire specifics used to measure exercise motivation and perceived social support for exercise.

Variables	Specifics	Statements	Response options
Exercise motivation	Nineteen statements where the individuals rate the significance of each statement as a personal motive to engage, or not engage in exercise. Statements were divided into five subscales, and a sum score (from 0 to 4) for each subscale was calculated by adding scores from each statement, divided by the number of statements	"We are interested in the reasons underlying peoples decisions to engage, or not engage in physical exercise. Using the scale below, please indicate to what extent each of the following items is true for you": Intrinsic regulation: "I exercise because it's fun", "I enjoy my exercise sessions", "I find exercise a pleasurable activity", "I get pleasure and satisfaction from participating in exercise", identified regulation: "I value the benefits of exercise", "It's important to me to exercise regularly", "I think it is important to make the effort to exercise regularly", "I get restless if I don't exercise regularly", introjected regulation: "I feel guilty when I don't exercise", "I feel ashamed when I miss an exercise session", "I feel like a failure when I haven't exercised in a while", external regulation: "I exercise because other people say I should", "I take part in exercise because my friends/family/partner say I should", "I exercise because others will not be pleased with me if I don't", "I feel under pressure from my friends/family to exercise", amotivation: "I don't see why I should have to exercise", "I can't see why I should bother exercising", "I don't see the point in exercising", "I think exercising is a waste of time"	"0 not true for me", "1", "2 partly true for me", "3", or "4 very true for me"
Social support	Thirteen statements where the individuals rate each statement on how often their family or friends had been supportive of them exercising. A total social support score was calculated (from 6 to 30) using a sum of scores from each of the statements.	"Please rate how often family or friends has said or done what is described during the last three months.": "Exercised with me", "Offered to exercise with me", "Gave me helpful reminders to exercise ("Are you going to exercise tonight?")", "Gave me encouragement to stick with my exercise program", "Changed their schedule so we could exercise together", "Discussed exercise with me", "Complained about the time I spend exercising", "Criticized me or made fun of me for exercising", "Gave me rewards for exercising (bought me something or gave me something I like)", "Planned for exercise on recreational outings", "Helped plan activities around my exercise", "Asked me for ideas on how they can get more exercise", "Talked about how much they like to exercise"	"1 none", "2 rarely", "3 a few times", "4 often", or "5 very often"

The participants also responded to questions regarding membership length and exercise behavior (such as exercise frequency and mode at both the fitness club and at other arenas). Since it may be unethical with mandatory questionnaire responses, we included "I do not want to answer" as a response option on most questions, which was treated as missing data in the analysis.

Statistical analyzes

All statistics were conducted with SPSS Software V. 24 for Windows. A Kolmogorov-Smirnov test and the usage of histograms showed a normal distribution in the data set. To investigate differences in background and health variables, exercise motivation, and social support between members from multipurpose, fitness-only, and boutique fitness clubs a one-way between-group ANOVA with Bonferroni correction or a chi-square test was used as appropriate. Results are presented as frequencies (n) and percentages or means with standard deviations (SD), as well as 95% confidence intervals (CIs), mean differences, and p-values.

Ethical approval statement

The original study was reviewed by the Regional Committee for Medical and Health Research Ethics (REK 2015/1443 A), which concluded that, according to the Act on medical and health research (the Health Research Act 2008), the study did not require full review by REK. Hence, the study was approved by The Norwegian Centre for Research Data in March 2020 (NSD 296859) and conducted in accordance with the Declaration of Helsinki. By a link in the email-invitation or Facebook advertisement, all participants consented to participate in the web-based system SurveyXact 8.2 (Ramböll, Aarhus, Denmark). The electronic informed consent contained study information

following the Helsinki Declaration and data was non-identifiable. The IT department at the Norwegian School of Sport Sciences provides storage services, and Norwegian regulations require that all raw research data should be kept for at least five years after study completion. Participants or the public were not involved in the design, or conduct, or reporting, or dissemination plans of our research. This work was supported by the Norwegian School of Sport Sciences, Department of Sport Medicine, Norway, and did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors'.

Results

Background characteristics

Multipurpose and fitness-only members were older (mean diff: 9.1 years, $p < 0.001$) and exercised less (mean diff: 1-1.2 sessions/week, $p < 0.001$) than members from boutique clubs (Table 4). We also found that those at multipurpose fitness clubs had been members for a longer period than members at fitness-only and boutique gyms, defined as >5 years (46.7% versus 28.9% and 23.3%, $p < 0.05$) and >10 years (24.3% versus 13.5% and 9.6%, $p = 0.027$). The groups were balanced in all other background variables. Ten participants (4.3%) were new fitness club members (<4 weeks of membership) and the distribution was as follows: six participants (multipurpose gyms), one participant (fitness-only gyms), and three participants (boutique gyms).

In addition to working out at the fitness club, 70.1% (multipurpose), 96.0% (fitness-only), and 82.2% (boutique) participants reported exercise in other areas ($p = 0.25$), respectively. With no group differences, the most-common exercise mode was endurance (54.8% to 64.5%, $p = 0.25$).

Table 4. Comparison of background variables between members from multipurpose, fitness-only, and boutique fitness clubs.

	All (n = 232)	Multipurpose (n = 107)	Boutique (n = 73)	Fitness-only (n = 52)	p
	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	
Age (years)	39.6 \pm 13.7	42.4 \pm 15.2	33.3 \pm 8.4*	42.4 \pm 13.6	<0.001
BMI (kg/m ²)	24.9 \pm 3.8	25.1 \pm 4.5	24.4 \pm 2.3	25.3 \pm 3.7	0.362
Exercise sessions/week#	3.1 \pm 1.7	2.8 \pm 1.6	3.8 \pm 1.5*	2.6 \pm 1.6	<0.001
	n (%)	n (%)	n (%)	n (%)	P
Gender					0.296
Men	39 (16.8)	14 (13.1)	16 (21.9)	9 (17.3)	
Women	193 (83.2)	93 (86.9)	57 (78.1)	43 (82.7)	
Age groups (years)					<0.001
18-29	70 (30.2)	28 (26.2)	29 (39.7)*	13 (25.0)	
30-49	103 (44.4)	44 (41.1)	39 (53.4)*	20 (38.5)	
≥ 50	59 (25.4)	35 (32.7)	5 (6.8)*	19 (36.5)	
BMI (kg/m ²) ≥ 25	76 (32.8)	34 (31.8)	22 (30.1)	20 (38.5)	0.594
BMI (kg/m ²) ≥ 30	22 (9.5)	14 (13.1)	3 (4.1)	5 (9.6)	0.130
Spouse/partner	117 (50.4)	56 (52.3)	36 (49.3)	25 (48.1)	0.858
Children	62 (26.7)	29 (27.1)	17 (23.3)	16 (30.8)	0.643
Educational level ≥ 4 years	94 (40.5)	47 (43.9)	30 (41.1)	17 (32.7)	0.397
Household income $\geq 100\ 000$ \$/year	97 (41.8)	47 (43.9)	33 (45.2)	17 (32.7)	0.314
Self-perceived health \geq good	212 (91.4)	95 (88.8)	71 (97.2)	46 (88.4)	0.332
Membership length <1 year	54 (23.3)	19 (17.8)	21 (28.8)	14 (26.9)	0.048
1 to 5 years	96 (41.4)	38 (35.5)	35 (47.9)	23 (44.2)	
≥ 6 years	42 (18.1)	24 (22.4)	10 (13.7)	8 (15.4)	
≥ 10 years	40 (17.2)	26 (24.3)	7 (9.6)	7 (13.5)	

#Exercise sessions at the fitness club the last three months; *Significant different from multipurpose and fitness-only

Exercise motivation

Members from boutique fitness clubs were most autonomously motivated (Table 5).

Compared with multipurpose and fitness-only members, boutique members reported a higher intrinsic regulation (mean diff: 0.3, 3.7 ± 0.4 versus 3.4 ± 0.7 , $p = 0.030$). Fitness-only members scored higher than multipurpose and boutique members in amotivation (mean diff: 0.06 to 0.08, 0.1 ± 0.4 versus 0.02 ± 0.1 and 0.04 ± 0.2 , $p = 0.037$). Otherwise, we found no differences in the stages of introjected regulation or external regulation between members from the three different fitness club business

models. On the five-point Likert scale, all participants felt generally self-determined concerning exercise.

Social support

Members from boutique fitness clubs perceived greater social support from family and friends than members from multipurpose and fitness-only gyms (total score mean diff: 6.4 to 6.6) (Table 6). The most common forms of social support were friends or family discussing exercise or exercising with the participants or talked about how much they liked to exercise. On the five-point Likert scale, all participants perceived low to medium social support with scores from 1.2 to 3.5.

Table 5. Comparison of regulation of exercise motivation between members from multipurpose, fitness-only, and boutique fitness clubs.

	All (n = 232)	Multipurpose (n = 107)	Boutique (n = 73)	Fitness-only (n = 52)	p
	Mean \pm SD (95% CI)	Mean \pm SD (95% CI)	Mean \pm SD (95% CI)	Mean \pm SD (95% CI)	
Intrinsic regulation	3.4 ± 0.6 (3.4, 3.6)	3.4 ± 0.7 (3.3, 3.6)*	3.7 ± 0.4 (3.6, 3.7)*	3.4 ± 0.7 (3.2, 3.6)	0.030
Identified regulation	3.5 ± 0.6 (3.4, 3.5)	3.4 ± 0.6 (3.3, 3.5)	3.6 ± 0.5 (3.5, 3.7)	3.5 ± 0.6 (3.3, 3.6)	0.061
Introjected regulation	1.6 ± 1.0 (1.4, 1.7)	1.5 ± 1.0 (1.3, 1.7)	1.5 ± 0.9 (1.30, 1.8)	1.8 ± 1.2 (1.5, 2.1)	0.253
External regulation	0.2 ± 0.4 (0.1, 0.2)	0.2 ± 0.4 (0.1, 0.3)	0.1 ± 0.2 (0.06, 0.2)	0.2 ± 0.5 (0.1, 0.4)	0.236
Amotivation	0.04 ± 0.2 (0.02, 0.07)	0.02 ± 0.1 (0.00, 0.04)*	0.04 ± 0.2 (0.00, 0.08)	0.1 ± 0.4 (0.02, 0.2)*	0.037

Significant different from each other

Table 6. Comparison of social support between members from multipurpose, fitness-only, and boutique fitness clubs.

	All (n = 232)	Multipurpose(n = 107)	Boutique(n = 73)	Fitness-only(n = 52)	p
	Mean \pm SD (95% CI)	Mean \pm SD (95% CI)	Mean \pm SD (95% CI)	Mean \pm SD (95% CI)	
Discussed exercise with me	3.5 ± 1.2 (3.3, 3.6)	3.3 ± 1.1 (3.0, 3.5)	4.0 ± 0.8 (3.8, 4.2)*	3.2 ± 1.4 (2.9, 3.6)	<0.001
Exercised with me	3.1 ± 1.3 (2.9, 3.3)	2.9 ± 1.2 (2.7, 3.2)	3.6 ± 1.2 (3.3, 3.9)*	2.7 ± 1.3 (2.4, 3.1)	<0.001
Talked about how much they like to exercise	3.0 ± 1.2 (2.8, 3.1)	2.8 ± 1.2 (2.5, 3.0)	3.5 ± 1.0 (3.3, 3.7)*	2.8 ± 1.3 (2.4, 3.1)	<0.001
Offered to exercise with me	2.9 ± 1.2 (2.5, 2.9)	2.7 ± 1.2 (2.4, 2.9)	3.3 ± 1.2 (3.0, 3.6)*	2.6 ± 1.2 (2.3, 2.9)	<0.001
Gave me helpful reminders to exercise ("Are you going to exercise tonight?")	2.7 ± 1.3 (2.5, 2.9)	2.5 ± 1.2 (2.3, 2.7)	3.2 ± 1.2 (3.0, 3.5)*	2.4 ± 1.4 (2.0, 2.7)	<0.001
Helped plan activities around my exercise	2.8 ± 1.3 (2.6, 3.0)	2.7 ± 1.3 (2.4, 2.9)*	3.0 ± 1.2 (2.8, 3.4)*	2.6 ± 1.3 (2.3, 2.9)	0.056
Planned for exercise on recreational outings	2.7 ± 1.2 (2.6, 2.9)	2.6 ± 1.1 (2.3, 2.8)	3.0 ± 1.2 (2.8, 3.3)*	2.6 ± 1.2 (2.3, 2.9)	0.014
Asked me for ideas on how they can get more exercise	2.6 ± 1.3 (2.5, 2.8)	2.4 ± 1.3 (2.1, 2.6)*	3.0 ± 1.1 (2.8, 3.3)*	2.6 ± 1.4 (2.3, 3.0)	<0.001
Gave me encouragement. to stick with my exercise program	2.5 ± 1.3 (2.4, 2.7)	2.3 ± 1.2 (2.1, 2.6)	2.9 ± 1.3 (2.6, 3.2)*	2.4 ± 1.5 (2.0, 2.8)	<0.001
Changed their schedule so we could exercise together	2.2 ± 1.1 (2.1, 2.4)	2.0 ± 1.0 (1.8, 2.2)	2.6 ± 1.0 (2.4, 2.8)*	2.0 ± 1.2 (1.8, 2.4)	<0.001
Complained about the time I spend exercising	1.4 ± 0.8 (1.3, 1.5)	1.4 ± 0.8 (1.2, 1.5)	1.4 ± 0.9 (1.3, 1.6)	1.4 ± 0.9 (1.2, 1.7)	0.797
Criticized me or made fun of me for exercising	1.2 ± 0.6 (1.2, 1.3)	1.2 ± 0.5 (1.0, 1.3)	1.4 ± 0.8 (1.2, 1.5)	1.2 ± 0.7 (1.0, 1.4)	0.165
Gave me rewards for exercising (bought me something or gave me something I like)	1.3 ± 0.7 (1.2, 1.3)	1.2 ± 0.6 (1.1, 1.3)	1.2 ± 0.6 (1.1, 1.4)	1.4 ± 0.9 (1.2, 1.7)	0.243
Total score:	31.9 ± 9.4 (30.7, 33.0)	29.8 ± 8.7 (28.1, 31.5)	36.4 ± 8.2 (34.5, 38.2)*	30.0 ± 10.5 (27.2, 32.8)	<0.001

*Significant different from each other

Discussion

The present study aimed at comparing background variables, exercise motivation, and social support in members from fitness clubs with three different business models: multipurpose (a wide range of exercise concepts and facilities, middle to high membership fee), fitness-only (equipment for individual exercise, low membership fee), and boutique (one or two specialized exercise concepts, high

membership fee) clubs. Multipurpose and fitness-only members were approximately nine years older and exercised about one session less per week than members from boutique clubs. The highest score on intrinsic regulation was reported among those exercising at boutique clubs. These members were also more likely to report perceived social support from family and friends towards exercise participation compared with members from multipurpose and fitness-only clubs. Our results are in line with our

expectations that different fitness club business models attract individuals with dissimilar background characteristics, motivation to exercise, and social support. Therefore, the different gyms contain individuals with different prerequisites that influence participation that might require different exercise promotions.

Background characteristics

A higher proportion of younger participants were found among boutique members, with 40% being in the age group 18 - 29 years, compared with 25% among multipurpose and fitness-only members. Whiteman-Sandland et al. (2018) (Whiteman-Sandland et al., 2018) also found that younger individuals were more likely to be members of a CrossFit gym than at traditional fitness clubs (24% versus 12%). Boutique clubs like CrossFit offer high-intensity workouts with multi-joint functional movements (Dominski et al., 2020, Sibley and Bergman, 2018, Bailey et al., 2019, Garcia-Fernandez et al., 2020), and we believe middle-aged adults may perceive that fear of injury holds them back from joining such a gym context. Such demanding exercise programs have been suggested to increase the injury risk, especially when they are performed inappropriately (Angel Rodriguez et al., 2022). This may therefore be one explanation for the age difference between members from fitness clubs with three different business models. Only 7% of boutique members were above 50 years, compared with 33% and 37% of multipurpose and fitness-only members. However, CrossFit is shown to be safe and suitable for different age groups when performed in a safe environment and with supervision from fitness instructors (Angel Rodriguez et al., 2022, da Costa et al., 2019). Another explanation for the age difference may be that younger individuals are more open to social interaction and thereby more attracted to CrossFit clubs. It is suggested that younger individuals prioritize building social networks, while older individuals are more likely to narrow their social networks (Sigelman and Rider, 2012). Also, it is shown that CrossFit members seek social exercise arenas focusing on community belongingness more than members from fitness clubs with other business models (Whiteman-Sandland et al., 2018). However, Box et al. (2019) (Box et al., 2019) found that the popularity of CrossFit was not limited to a particular age group and seemed to capture interest across the entire adult age spectrum. Yet, we believe that CrossFit marketing is primarily aimed at younger adults and thereby attracts younger age groups.

Most of the participants (77%) had been a member for more than a year at their respected fitness club, assumed to overcome the critical phase of dropout (Gjestvang et al., 2019). A longer duration of membership in fitness clubs has previously been shown to be positively associated with regular exercise (Whiteman-Sandland et al., 2018). Almost half (47%) of multipurpose members had been members for more than five years and 24% for more than 10 years, which was twice as many compared with members from fitness-only and boutique gyms. It has previously been reported that a diversity of exercise options and increased focus on member services may engage more members in regular exercise (Leon-Quismondo et al., 2020, Riseth et al., 2019, Brown and Fry, 2011, Freitas and Lacerda, 2019,

Gocłowska and Piątkowska, 2017). We speculate if multipurpose fitness clubs are more competitive in such features, and that multipurpose members are more satisfied than fitness-only and boutique members. Thereby, explaining the difference in membership length. Further, CrossFit gyms arose as recently as 2007 in Norway, and are as such, a relatively new gym context compared with the overall fitness club industry (Davies et al., 2016). Lastly, fitness-only clubs may be a more short-term choice since these clubs primarily offer “pay as you go” contracts, that can be canceled at any time in contrast to multipurpose or boutique clubs. Yet, these differences in membership length were borderline significant only. Most of the participants also reported exercising in other areas than the gym, which aligns with the findings of the European Health & Fitness Market Report (2022), where only 16% of respondents exclusively exercised at their gym (Europe Active, 2022). Additionally, a large majority of American fitness club members reported missing at least one aspect of working out in the gym (The International Health Racquet & Sportsclub Association, 2020). As such, while fitness clubs provide a convenient and structured environment for exercise, many individuals may also enjoy the variety and flexibility of other types of exercise settings.

Exercise motivation

The self-determination theory (Ryan and Deci, 2000, Standage and Ryan, 2012, Teixeira et al., 2012), propose that autonomous and controlled motivation and amotivation lie along a continuum of different degrees of autonomy (Ingledeu et al., 2009, Standage and Ryan, 2012). Autonomous motivation encompasses integrated (e.g., individuals value exercise as an activity) and identified (e.g., exercise is an important part of the individuals' identity) regulation, while controlled motivation includes introjected (e.g., individuals exercise because of internal pressure/sense of guilt) and external (e.g., to satisfy the wishes of some external pressure such as family/physician) regulation (Ryan and Deci, 2000, Standage and Ryan, 2012). The systematic review by Rodrigues et al. (2018) suggests that autonomous motivation is more beneficial for sustaining long-term exercise behaviour than controlled motivation or amotivation (Rodrigues et al., 2018). Members from boutique clubs reported a higher exercise frequency than multipurpose and fitness-only members, possibly explained by that boutique members reported higher intrinsic regulation than members from multipurpose and fitness-only clubs. In line with our findings, CrossFit members have previously reported higher internal regulation compared with individuals in more traditional fitness clubs such as multipurpose or fitness-only clubs (Box et al., 2019, Dominski et al., 2020, Marin et al., 2018). Also, Marin et al. (2018) found that CrossFit members who reported a higher autonomous motivation towards exercise also report a higher weekly exercise volume (Marin et al., 2018). Another study found that those participating in CrossFit reported more intrinsic exercise motives, such as being challenged and experiencing enjoyment, compared with individuals exercising in more “traditional” fitness clubs, such as multipurpose gyms (Fisher et al., 2017). A possible explanation for these findings may be that

boutique clubs are focusing on cohesion and building a social community, aiming to create a network and environment like traditional sports clubs, where enjoyment is the most frequently reported reason for exercise (Marin et al., 2018, Lautner et al., 2021). Thus, more “traditional” fitness clubs have an individualized approach to exercise compared with sports clubs emphasizing the social aspects of exercise. Since boutique clubs have a high focus on socialization and exercise enjoyment, it may be that boutique members to a greater extent fulfill the basic psychological needs (autonomy, competence, and relatedness) than members from other gyms (Dominski et al., 2020). Two studies have reported that the CrossFit environment may foster a sense of enjoyment, affiliation, and challenge, possibly increasing more autonomous forms of motivation, compared with other exercise settings (Claudino et al., 2018, Lautner et al., 2021).

We observed no differences regarding introjected and external motivational regulation between members from fitness clubs with three different business models. In discrepancy with our findings, (Marin et al., 2018) reported a higher external regulation among members at multipurpose and fitness-only clubs compared with CrossFit members. Another study has also proposed that high membership fees could be perceived as a source of external pressure, and thereby lead to more controlled forms of motivational regulation toward exercise participation (Davies et al., 2016). However, this was not observed in the present study.

We found that participants from fitness-only clubs scored higher on amotivation than the other two fitness club business models. It is not unlikely that members from fitness-only clubs may experience less support and guidance from fitness instructors since these gyms do not offer such services to the same degree as the two other fitness club business models. It is shown that individuals receiving guidance from trained personnel feel greater autonomy support, which thereby may lead to greater autonomous motivation (Klain et al., 2015).

Social support

Boutique members reported greater social support from family or friends in 10 out of 13 statements, compared with the two other fitness club business models. Based on scientific literature showing that social support for exercise is one important mechanism influencing participation in exercise, this finding was not surprising. Authors have shown that social support from family members and significant others is associated with regular exercise (Scarapicchia et al., 2017). The social aspect of boutique clubs has also been reported as a reason for members to choose this fitness club segment (Yildiz et al., 2021, Claudino et al., 2018). Boutique clubs generally provide greater opportunities for members to build a supportive social community in comparison with e.g., fitness-only clubs, which may not offer many opportunities for social interaction, and therefore, boutique members receive encouragement to make friends to exercise with at the gym (Whiteman-Sandland et al., 2018, Williams et al., 2007). It is shown that friend’s exercise is associated with an individual’s own exercise, when perceived support is high (Darlow and Xu, 2011).

Differences in perceived social support may also be biased by background variables such as sex, or age. It is reported that women perceive higher levels of social support than men (Darlow and Xu, 2011, Gruber, 2008). Yet, this was not found in the present study. The majority (83%) of our participants were women, and more women than men were boutique members. Further, in terms of age, Norwegian adults aged 20–34 years have reported higher social support for exercise from family and friends compared with those above 35 years (The Norwegian Directorate of Health, 2015). This may be one explanation for our findings since most boutique members were in this age group. However, due to our study design, we cannot conclude that higher levels of social support contribute to a higher exercise frequency or if it is the other way around (Grimes and Schulz, 2002).

Practical implications

This study provides an improved understanding of possible differences between individuals exercising at fitness clubs with different business models. As such, aid the development of strategies in specific fitness club business models containing individuals with different prerequisites influencing participation. One primary take-home message is that fitness clubs focusing on cohesion and a social community might have more active and motivated members, experiencing not only exercising alongside one another but exercising together. Creating an exercise environment with supervised group activities and social support in a safe setting with qualified instructors may help members to stay motivated, committed, and consistent with their exercise behavior. As such, our findings emphasize that a stronger social bond among the exercising individuals may increase the likelihood of adherence.

Strengths and limitations

To our knowledge, the most recent studies in this field are from the UK, the US, and Brazil (Whiteman-Sandland et al., 2018, Box et al., 2019, Marin et al., 2018, Fisher et al., 2017). Viewed from a cultural perspective, we therefore need information about the Scandinavian population. The Scandinavian population is among the most prosperous in the world, with relatively high social capital, and with men and women enjoying greater equality than any other country globally (Nordic Council of Ministers, 2017).

Standardized electronic questionnaires’ are cost-efficient and gather responses quickly. A survey was therefore an appropriate measurement method for the aims of this study. Another strong aspect was a complete dataset with no missing values. Due to the covid-19 pandemic, using Facebook and social media was assumed as an appropriate method for an efficient recruitment process. Using social media also offers the potential to reach a large audience and can be conducted at a low cost (Arigo et al., 2018). Furthermore, since participants were recruited during the covid-19 pandemic, there is a higher risk of selection and sampling bias. There is a possibility that our participants were more autonomously motivated and perceived the greatest social support for exercise during Covid-19 than other fitness club members. The pandemic may also have influenced possible participants’ willingness to participate

in the study. Recruiting a larger and more diverse sample could have given different results in this study.

Participants from the three different fitness club business models were not balanced in the number of participants or sex distribution. E.g., there were twice as many participants from multipurpose than fitness-only clubs, and only 17% of the participants were men. Additionally, our sample size of 232 participants may be too small and limit the representativeness and external validity of our findings. A larger and more diverse sample, e.g., with multiple countries, might have given different results. Further, even though the questionnaire was an appropriate measurement method, a limitation was the self-reported nature of our data. Self-reporting of exercise behavior may be biased by that individuals often want to present a socially acceptable version of themselves (Althubaiti, 2016). Yet, we believe that this was equally distributed in the three fitness club business models and did not influence our results. We mainly recruited participants through Facebook advertisements, and it may be that Facebook users are older than on other social media platforms. Further, participants reported perceived social support from friends and family, and not the social support they experienced at their fitness club. Obtaining such data would have strengthened this study, since social support perceived at the fitness club may positively influence exercise behavior. Finally, measures of the stages of the self-determination continuum concerning exercise motivation have expanded since its origin (Teixeira et al., 2022). To date, a newer version of BREQ (BREQ-4) has been released, to assess all motivational regulations beyond the BREQ-2 (Teixeira et al., 2022). However, BREQ-2 has been one of the most widely used instruments measuring exercise motivation in the last 20 years and this version was also validated in Norwegian (Teixeira et al., 2022, Coimbra et al., 2022). Thus, at the origin of this study, BREQ-2 was assumed as an appropriate measurement method for exercise motivation.

Conclusion

Members from multipurpose and fitness-only clubs were nearly 10 years older and used the gym less than boutique members. Boutique members were most autonomously motivated and engaged in exercise because it was perceived to be consistent with intrinsic goals and thereby self-determined. They also reported greater social support from family and friends than fitness-only and multipurpose members. The different fitness club business models attract individuals with different backgrounds and reasons for working out at the gym. Our findings suggest that emphasis on exercise enjoyment and a social community, the “philosophy” of boutique gyms, may be important to achieve long-term participation in exercise.

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Key points

- One important approach to retaining members in fitness clubs, one of the largest exercise arenas worldwide, may be to cluster members with mutual needs and interests. However, there is little research in this field.
- We compared background factors, exercise motivation, and social support in 232 members of multipurpose (wide range of exercise concepts/facilities, middle to high membership fee), fitness-only (low membership fee), and boutique (one or two specialized exercise concepts, high membership fee) fitness clubs.
- We found that boutique members were younger, exercised more, and reported higher autonomous motivation and social support than multipurpose and fitness-only members.
- One primary take-home message from this study is that fitness clubs focusing on cohesion and a social community might have more active and motivated members, contributing to enhanced public health.

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