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UNCOVERING THE MOTIVATIONAL STRUCTURE OF EXERCISE: A STUDY OF THE IMPACT OF DEMOGRAPHIC VARIABLES

ODKRIVANJE MOTIVACIJSKE STRUKTURE VADBE: ŠTUDIJA VPLIVA DEMOGRAFSKIH SPREMENLJIVK

ABSTRACT

This study examined the relationship between demographic variables and exercise motivation. 764 exercisers from the 18 largest Slovenian fitness clubs completed the Exercise Motivation Inventory-2 questionnaire, which was combined with other demographic questions. The analysis confirmed that men exercise different reasons than women. Young adults crave social recognition and exposure, but also want to get stronger and compete with others. Older adults exercise because they want to recover, stay healthy, control their weight, and stay mobile. Participants who played competitive sports in their youth now exercise because they enjoy exercise, feel challenged, and compete, but also because they want to be recognized socially more than non-competitors who exercise primarily for health reasons. Single people have statistically significantly different motivations to exercise than people who are in a relationship or married, mainly affiliation and social recognition. In contrast, married people exercise mainly for health reasons. Employment status also has an impact on exercise motivation, as does education. People with higher education levels exercise more for health reasons, while less educated people exercise for challenge, competition, and social recognition. These findings highlight the practical importance of motivational structure among athletes from different demographic backgrounds.

Keywords: exercise motivation, fitness, relationship type, job type, education

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IZVLEČEK

V tej študiji smo preučili povezavo med demografskimi spremenljivkami in motivacijo za vadbo. 764 vadečih iz 18 največjih slovenskih fitness klubov je izpolnilo vprašalnik Exercise Motivation Inventory-2, ki je bil kombiniran z drugimi demografskimi vprašanji. Analiza je potrdila, da moški vadijo iz drugačnih razlogov kot ženske. Mladi odrasli hrepenijo po družbeni prepoznavnosti in izpostavljenosti, vendar si hkrati želijo postati močnejši in tekmujejo z drugimi. Starejši odrasli vadijo, ker si želijo okrevati, ostati zdravi, nadzorovati svojo telesno težo in ostati gibljivi. Udeleženci, ki so se v mladosti tekmovalno ukvarjali s športom, zdaj vadijo, ker uživajo v vadbi, tekmujejo med seboj in si želijo družbene prepoznavnosti, bolj kot ne-tekmovalci, ki vadbe izvajajo predvsem zaradi zdravja. Samski ljudje imajo statistično pomembno drugačne motivacije za vadbo kot ljudje, ki so v zvezi ali poročeni, predvsem gre za pripadnost in družbeno prepoznavnost. Poročeni ljudje pa vadbe izvajajo predvsem zaradi zdravja. Zaposlitveni status prav tako vpliva na motivacijo za vadbo, prav tako kot izobrazba. Ljudje z višjo izobrazbo več vadbe izvajajo zaradi zdravja, manj izobraženi ljudje pa zaradi izziva, tekmovanja in družbene prepoznavnosti. Ti rezultati poudarjajo praktičen pomen motivacijske strukture med rekreativnimi športniki iz različnih demografskih ozadij.

Cljučne besede: motivacija za vadbo, fitness, vrsta razmerja, vrsta zaposlitve, izobrazba

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INTRODUCTION

Exercise is an important aspect of a healthy lifestyle that has numerous physical (Haskell et al., 2007; Sjøgaard et al., 2016) and mental (Chekroud et al., 2018; Lowenstein et al., 2015; Thøgersen-Ntoumani et al., 2005; Kajtna & Vučković, 2022) benefits. Despite the known benefits of exercise, many people find it difficult to maintain a consistent exercise routine, and obesity rates are nearly three times higher than they were in 1975 (World Health Organization, 2020). This may be due to a lack of motivation or other barriers. It is known that our physical activity is influenced by many factors such as age, gender, health status, personal motivation, habit, economic factors, social norms, urbanization, industrialization, and even genetics (Bauman et al., 2012). Understanding the factors that contribute to exercise motivation and developing strategies to overcome these barriers can be critical to promoting a consistent exercise routine (Wilson et al., 2008).

Intrinsic motives, such as enjoyment during or after exercise and revitalization, may have a positive effect on exercise persistence (Markland & Ingledew, 1997). Extrinsic motives are those that put pressure on the individual to exercise, such as social recognition, praise, or physical appearance. Such motives can have negative consequences such as anxiety and can cause one to stop exercising (Ingledew & Markland, 2008). It is known that about 50% of clients stop exercising after one year (MacIntosh & Law, 2015). Therefore, understanding the motivational structure of gym members is crucial for club managers, personal trainers, and other sports professionals. This is the only way to implement the right techniques to improve the main motivations. This should achieve the goal of improving health and psychological well-being worldwide (Morris & Roychowdhury, 2020; Ryan et al., 2004).

Exploring motivations for physical activity is critical to understanding sport participation. In addition to aerobic capacity, it is important for adults to maintain muscle capacity as it influences many health indicators (Warburton et al., 2001). One popular option for safe exercise is to visit fitness centers, a trend that is growing in popularity (NOC*NSF, 2019). In the EU alone, there were 56.3 million active fitness members in 2021 (European Health & Fitness Market-Report 2022). Some studies have shown that people engage in fitness not only for physical health reasons, but also for psychological and social benefits, such as less loneliness and social isolation (Brady et al., 2020). Some studies also cite other reasons, such as motivating parents to set a good example for their children (MacIntosh & Law, 2015).

Understanding individuals' motivations for exercise is a common question among kinesiologists (Rodrigues et al., 2022), and researchers agree that examining these motivations is of practical value (Markland & Hardy, 1993). It is also common for people to have multiple goals or motivations for a particular activity, with some being more intrinsic and others less intrinsic (Teixeira et al., 2012).

Motivations for sport participation vary depending on the methodology used and the countries in which the research was conducted. Different theoretical approaches have been used, so a variety of models have been developed in recent decades to measure motivation. For example, the Health-Belief Model (Becker & Maiman, 1975), the Theory of Planned Behaviour (Ajzen, 1991), the Transtheoretical Model (Prochaska & DiClemente, 1983), and Self-Determination Theory (Deci & Ryan, 1985). This could also be related to the heterogeneity of the training participants and the different training environments. For example, in self-determination theory, researchers have proposed intrinsic motivation (no presence of external rewards), extrinsic motivation (external rewards), and amotivation (Deci & Ryan, 1985). It is well known that self-determined motivation improves the quality of the movement experience and stimulates movement behaviour (Thøgersen-Ntoumani & Ntoumanis, 2006). One of the most internationally recognised scales for measuring exercise motivation is the EMI-2 (Markland & Ingledew, 1997), which consists of 14 motives that can be divided into intrinsic and extrinsic.

It is known that longer and more frequent exercise sessions are performed by individuals who reported revitalization, enjoyment, and positive health outcomes as motives (Rahman et al., 2018). These are intrinsic motives, meaning that internally motivated users exercise more consistently and complete longer workouts. Intrinsic motivation may also predict exercise participation 7 and 14 months later (Papaioannou et al., 2006). There may also be some life events that shape an individual, such as illness, injury, trauma, or emotional problems. Some exercise centre users even develop a dependence on physical activity, are more satisfied with the exercise centre, and intend to be physically active in the future (Fernández-Martínez et al., 2021). Older people give three main reasons for their physical activity: Enjoyment of exercise, to stay in shape, and for medical advice. Those who exercised on medical advice exercised less frequently and therefore aged less healthily (Gutiérrez et al., 2018). Finally, but not unimportantly, it is known that people who exercise regularly for intrinsic reasons have better self-perception and are more satisfied with their lives overall (Martín-Albo et al., 2012). In contrast, motivation to exercise for appearance reasons, which likely dominates among motives (Ingledew & Markland, 2008; Tsitskari et al., 2017), may be significantly associated with

increased levels of self-injury, particularly among high school students (Boone & Brausch, 2016).

Some themes may be predictors of exercise, such as stress management, enjoyment of exercise, competition, and weight control, while appearance may be a negative predictor for women (Ednie & Stibor, 2017). In addition, motives such as fun, belonging, revitalization, and challenge are important in promoting internal motivation to participate in exercise by supporting the satisfaction of the need for autonomy, which may positively affect the frequency of high-intensity exercise (Bycura et al., 2017).

(Tsitskari et al., 2017) segmented gym participants by motivation. Their study showed a statistically significant difference between groups with exercise motivation in both service quality and psychological attachment to the gym.

Understanding these different motivations can help researchers and health professionals design interventions and programs tailored to the specific needs and goals of different individuals, which can improve their effectiveness and ultimately increase the overall impact on public health. But on what basis should motives differ?

There is a large body of research indicating that motivations for physical activity differ between genders (Boone & Brausch, 2016; Caglar et al., 2009; Cho & Beck, 2016; Ednie & Stibor, 2017; Egli et al, 2011; Ferrand et al, 2008; Grajek et al, 2021; Ingledew & Markland, 2008; Ingledew & Sullivan, 2002; Kilpatrick et al, 2005; Kim & Cho, 2022; Markland & Ingledew, 2007; Molanorouzi et al., 2015; Morgan et al, 2003; Pauline, 2013; Roberts et al, 2015; Teixeira et al, 2012; Tišma et al, 2021; Yazıcı, 2016) as well as age (Biddle et al, 2003; Box et al, 2021; Brunet & Sabiston, 2011; Caglar et al., 2009; Egli et al, 2011; Grajek et al, 2021; Gut et al, 2022; Jones et al, 2020; Kulavic et al, 2013; Molanorouzi et al, 2015; Pauline, 2013; Quindry et al, 2011; Roberts et al, 2015; Rodrigues et al, 2019, 2022; Trujillo et al, 2004). Quite a few studies have shown that motivational elements related to weight control were primarily directed at women, while all elements of the competition were directed at men (Kilpatrick et al., 2005; Kim & Cho, 2022; Pauline, 2013). Conversely, for older men, more intrinsic motives (challenge and stress management) are negatively predicted by perceived body mass, whereas for women, more intrinsic motives (social affiliation and fun) are negatively predicted by body size (Markland & Ingledew, 2007). Interestingly, both younger and older women tend to desire a smaller body size, while young men often desire to be larger and have more muscle than their existing size (Ingledew et al., 2009).

There is less but still enough scientific documentation on the training motives of participants in different sports, although articles show that this is a very important topic (Ball et al., 2014; Fisher et al., 2017; Knowles et al., 2015; Molanorouzi et al., 2015; M. M. Rahman et al., 2019; Yazıcı, 2016).

In addition, it is known that people participate in competitive sports for different motives (Cho & Beck, 2016; Kilpatrick et al., 2005) and that older adults (after age 65) have a different perspective (Rhodes et al., 1999) and different motives (Knowles et al., 2015) for participating in sports if they competed in their youth. However, there is limited research on changes in motivation to exercise from the time a person stops participating in sports until they are older.

Existing research has examined either differences in motivation between young people who still exercise competitively and those who do not...or between retirees who exercised in their youth and those who did not. There is no scientific research on what happens in between, and that should be studied because most people are between 18 and 65 years old and need to exercise, in part because it is very important for them to be healthy for work and because exercise is known to affect cognitive abilities as well (Colcombe et al., 2003; Hey et al., 2012; Hillman et al., 2008).

It is known that most people start exercising for extrinsic motives such as appearance or weight management (Dacey et al., 2008; Ingledew & Markland, 2008). Soon they stop exercising (R. Rahman et al., 2018) or after about 6 months their exercise becomes intrinsically motivated. Students who exercised for more than 6 months scored significantly higher on the motives of stress management, fun, and challenge, while those who exercised for less than 6 months scored significantly higher on the motives of social recognition, affiliation, and competition (Maltby & Day, 2001). For older adults, intrinsic motivation is known to have a positive association with long-term participation in sport (Teixeira et al., 2012).

When analyzing differences in exercise motives, some other variables were also considered, such as different nations (Vlachopoulos et al., 2013).

There are few and conflicting studies on the association between relationship status and exercise; some found that people in a relationship/married exercise less than single people (Murad et al., 2016), others found no difference (Hull et al., 2010), or even found that married couples who exercise together have significantly higher participation and lower dropout than single people (Wallace et al., 1995).

However, there is virtually no scientific evidence on the motivations of singles and people who are in relationships or married. There are a few studies on competitive athletes such as marathon runners (León-Guereño et al., 2020), but we could not find any studies on motivations for recreational sports activities such as fitness or aerobics. The differences between single and married people and between the latter and divorced people may be crucial for exercise motivation, and this could be an interesting variable in the analysis of exercise motivation. Exercise may be a useful form of therapy to address emotional problems in married individuals (Goodsell et al., 2013), but to date we have been able to find virtually no scientific research on this topic.

Scientists agree that too little physical activity and exercise negatively impacts health problems such as type 1 and 2 diabetes, a weakened immune system, hypertension, and heart disease, which in turn leads to higher sick leave in the adult population (Stockwell et al., 2021; Willems et al., 2020). Thus, for the working population, exercise is very important.

It is also known that physical activity and exercise are significantly influenced by factors such as education level and type of occupation. For example, individuals with low levels of education who do not work and job loss were associated with lower levels of physical activity, while the opposite was true for individuals with high levels of education (Shaw & Spokane, 2008). Interestingly, although it is known that different occupational statuses are more or less stressful and that exercise is a successful way to cope with stress (Coulter et al., 2009; Jackson, 2013) and that even the type of exercise motivation is related to psychological stress (Turner et al., 2022), there is no scientific study that examines different motivators for exercise between different employment statuses.

People with higher levels of education may be more aware of the benefits of exercise for their physical and mental health and have the knowledge and resources to make healthy lifestyle choices. It is well known that people with higher education levels exercise more (Gerovasili et al., 2015), but we have not found evidence of differential motivation to exercise among people with unequal education levels. Therefore, this study aims to increase the knowledge of exercise motivation among different subgroups in gyms to provide a basis for exercise behaviour. In this article, we review the latest scientific research on exercise motivation and examine the motivational structure among different groups of gym members.

But what is the motivational structure of people who exercise in gyms, and how is it related to gender, age, relationship status, length of membership, education, and employment status?

Aim of the study

The aim of the present study was to determine the motivational structure of fitness members in Slovenian fitness clubs. Slovenia is a small country in Central Europe known for its healthy lifestyle and active children, who are among the most active in the world (Sember et al., 2016, 2018). Also, the fact that Slovenia is one of the few countries that has been conducting physical fitness tests for the entire population for more than 40 years (Strel et al., 1997; Strel et al., 2011) speaks to the population's high awareness of the importance of physical activity for health. Under these circumstances, it is of particular value to conduct this research among the population in this part of Europe. A look at the scientific studies on physical activity motivation shows that subgroups are very important because they exercise for different reasons. However, we have not found any studies that have investigated possible differences in exercise motivation between single people and people in a relationship, between people with higher or lower levels of education, between students, employees, company owners, pensioners and the unemployed.

METHODS

Participants

We collected data from fitness center members from 18 fitness centers in 9 major Slovenian cities (4 from the eastern region and 5 from the western region). 1.696 fitness center users participated in the questionnaire, but 857 users completed it. After subtracting 93 users who incorrectly completed the attention test question, 764 respondents remain. Of these 764 users whose data are included in the survey, 385 (50.46%) were female and 378 (49.54%) were male. The respondents were between 18 and 78 years old, with an average age of 27.36 years. Of them, 379 (49.67%) were single and 384 (50.33%) were in a relationship. 14 of the participants had only an elementary school degree or less, 362 participants had a secondary school degree, 141 participants had a college degree, 197 had a college degree, and 49 of them had a master's or doctoral degree. Survey participants included 366 students, 15 unemployed, 298 corporate employees, 76 self-employed, and 8 retirees. 505 (66.19%) of the survey participants have played competitive sports at some point in their lives, while 258 (33.81%) have never done so. 267 (34.99%) of the study participants have been members of the selected training center for 6 months or less, and 343 (65.01%) of the participants have been members of the training center for more than 6 months.

Instruments

The EMI-2 scale consists of 51 items and each item is measured on a 6-point Likert scale ranging from zero (does not apply to me at all) to five (applies to me very much), with higher scores indicating higher motivation to exercise. These items form up to 14 subscales, including: Weight Management, Stress Management, Strength and Endurance, Social Recognition, Revitalization, Positive Health, Ill-health avoidance, Health Pressures, Nimbleness, Affiliation, Appearance, Challenge, Competition, and Enjoyment. Each subscale is determined by calculating the average of 3 to 4 appropriate items based on the EMI-2 scale scoring key. The EMI-2 is a factorially valid means of assessing a wide range of motives for participation in sporting activities in adult men and women and is suitable for both athletes and non-athletes (Markland & Ingledew, 1997). Reliability for the Slovenian population is high, with Cronbach's alpha ranging from 0.70 to 0.94 (Vučković et al., 2022a).

Data analysis

Members were approached with an Ipad when they left the fitness center after their workout. To encourage participation, members were offered a protein bar and kindly asked to complete a questionnaire. They sat down on a chair and completed the questionnaire at their leisure. All questionnaires were distributed from Monday to Sunday in the morning, afternoon and evening. Although the sample was selected rather randomly, all gyms in this country have fairly similar characteristics in terms of facilities, equipment, programs offered, and membership conditions. This study was conducted in accordance with the Declaration of Helsinki and the British Psychological Society's Code of Ethics and Q4 Conduct. All participants provided written informed consent before participating in the study, and the Ethics Committee of the Faculty of Sport, College of Ljubljana, granted ethical approval for data collection (No. 2021-19). R version 4.2.1 was used for data analysis.

RESULTS

Table 1. Significant differences between male and female participants, between singles and in relationship, between ex-competitors and non competitors and between participants, who train less or more than 6 months.

	Female participants		Male participants		t	P	Effect
	M	SD	M	SD			
challenge	3,30	1,21	3,48	1,16	-2,15	0,03	0,16
social recognition	1,68	1,27	2,14	1,42	-4,74	0,00	0,34
competition	1,83	1,48	2,59	1,57	-6,87	0,00	0,50
positive health	4,36	0,87	4,22	0,89	2,20	0,03	-0,16
weight management	3,47	1,24	3,15	1,30	3,40	0,00	-0,25
strength and endurance	4,15	0,92	4,30	0,79	-2,40	0,02	0,17
	Relationship		Single		t	P	Effect
	M	SD	M	SD			
challenge	3,30	1,21	3,48	1,16	-2,02	0,04	0,15
social recognition	1,75	1,35	2,06	1,37	-3,13	0,00	0,23
affiliation	2,57	1,48	2,87	1,40	-2,82	0,01	0,20
competition	1,99	1,53	2,42	1,58	-3,85	0,00	0,28
Ill-health avoidance	3,76	1,14	3,37	1,26	4,49	0,00	-0,33
positive health	4,37	0,80	4,21	0,95	2,44	0,02	-0,18
appearance	3,48	1,09	3,65	1,00	-2,30	0,02	0,17
nimbleness	3,84	1,13	3,67	1,17	1,99	0,05	-0,14
	Non-competitive		Competitive		t	P	Effect
	M	SD	M	SD			
enjoyment	3,65	1,18	4,00	1,00	-4,01	0,00	0,32
challenge	3,22	1,23	3,48	1,16	-2,85	0,00	0,22
social recognition	1,71	1,32	2,01	1,38	-2,88	0,00	0,22
competition	1,73	1,47	2,45	1,56	-6,21	0,00	0,47
Ill-health avoidance	3,73	1,19	3,49	1,23	2,66	0,01	-0,20
	Less than 6 months		More than 6 months		t	P	Effect
	M	SD	M	SD			
revitalisation	3,87	1,14	4,22	2,72	-4,34	0,00	0,35
enjoyment	3,63	1,20	4,22	0,91	-4,61	0,00	0,37
challenge	3,25	1,22	4,02	0,97	-2,43	0,02	0,19
social recognition	1,76	1,36	3,47	1,17	-2,14	0,03	0,16
stress manag	3,44	1,26	1,98	1,37	-2,73	0,01	0,22
competition	2,00	1,48	3,69	1,10	-2,74	0,01	0,20
Ill-health avoidance	3,39	1,30	2,32	1,60	-2,85	0,01	0,22
positive health	4,19	0,88	3,66	1,17	-2,31	0,02	0,18
weight management	3,14	1,31	4,34	0,88	-2,77	0,01	0,21

M, mean; SD, Standard deviation; t, value of statistical parameter t; p, statistical significance of t; effect, Cohen's d.

As shown in Table 1, the motives of challenge, social recognition, competition, and strength and endurance are higher among male participants than among female participants. In contrast, women exercise more for positive health and weight management motives than men. Single study participants are more motivated to exercise than participants in a relationship for reasons of challenge, social recognition, affiliation, competition, and appearance. Conversely, participants who declared themselves to be in a relationship are more motivated by the motives ill-health avoidance, positive health, and nimbleness than single participants. Ex-competitors are more motivated to participate in sports than non-competitors by enjoyment, challenge, social recognition, and competition. Participants who have never competed in sports are more motivated by the motive of avoiding illness. We can also see that the individuals who exercise for more than 6 months are more motivated to exercise due to revitalization, enjoyment, challenge, social recognition, competition and weight management. Members, who exercise less than 6 months, are motivated by stress management, ill-health avoidance and positive health.

Table 2. Significant differences between age groups – 18-24 years (n = 426), 25-44 years (n = 271), 44+ years (n = 66) - of participants motives for exercise.

	18-24 years		25-44 years		44+ years		ANOVA	
	M	SD	M	SD	M	SD	F	p
revitalisation	4,01	1,06	4,16	0,96	4,41	0,74	10,26	0,00
enjoyment	3,99	1,02	3,77	1,13	3,63	1,07	11,03	0,00
challenge	3,55	1,13	3,16	1,27	3,28	1,08	13,22	0,00
social recognition	2,02	1,37	1,75	1,36	1,83	1,36	4,91	0,03
affiliation	2,86	1,37	2,48	1,52	2,77	1,45	5,07	0,02
competition	2,41	1,58	2,00	1,58	1,73	1,27	17,87	0,00
health pressures	1,39	1,20	1,68	1,36	2,28	1,50	29,14	0,00
Ill-health avoidance	3,28	1,29	3,86	1,01	4,24	0,95	62,73	0,00
positive health	4,20	0,97	4,38	0,77	4,48	0,66	10,70	0,00
weight management	3,24	1,31	3,33	1,26	3,68	1,11	5,48	0,02
appearance	3,62	0,93	3,52	1,13	3,35	1,34	4,41	0,04
nimbleness	3,64	1,16	3,78	1,17	4,41	0,80	19,88	0,00

M, mean; SD, Standard deviation; F, value of statistical parameter F; p, statistical significance of F.

Table 2 show ANOVA results for motivational factors dependence on age.

Table 3. Significant differences in exercise motives in relation to employment status – student (n = 366), unemployed (n = 15), company employee (n = 298), owner of company (n = 76) and retired (n = 8).

	Student		unemployed		company employee		owner of company		retired		ANOVA	
	M	SD	M	SD	M	SD	M	SD	M	SD	F	p
revitalisation	3,98	1,06	3,87	1,51	4,26	0,90	4,07	0,96	4,04	1,25	7,42	0,01
challenge	3,53	1,12	3,67	1,25	3,29	1,22	3,08	1,34	3,19	0,75	12,32	0,00
affiliation	2,80	1,38	3,35	1,33	2,66	1,48	2,47	1,55	2,44	1,51	4,01	0,05
health pressures	1,31	1,17	2,11	1,70	1,78	1,38	1,80	1,34	2,71	1,43	28,50	0,00
Ill-health avoidance	3,23	1,29	3,44	1,61	3,88	1,05	3,92	0,97	4,17	0,62	57,56	0,00
positive health	4,17	0,95	4,22	1,28	4,42	0,72	4,38	0,85	3,92	1,82	9,29	0,00
Nimbleness	3,62	1,17	3,78	1,40	3,87	1,10	3,86	1,17	4,67	0,94	11,08	0,00

M, mean; SD, Standard deviation; F, value of statistical parameter F; p, statistical significance of F.

Table 3 shows motivation structure in relation to employment status.

Table 4. Significant differences in exercise motives in relation to education – primary school (n = 14), secondary school (n = 362), high school (n = 141), bachelors degree (n = 197) and PhD/Master of Science (n = 49).

	primary school		secondary school		high school		bachelors degree		PhD/Master of Science		ANOVA	
	M	SD	M	SD	M	SD	M	SD	M	SD	F	p
enjoyment	3,80	1,19	4,01	0,97	3,80	1,21	3,80	1,08	3,49	1,23	10,99	0,00
challenge	3,46	1,18	3,60	1,09	3,28	1,28	3,20	1,28	2,94	1,01	23,06	0,00
social recognition	2,64	1,56	2,07	1,39	1,82	1,40	1,75	1,29	1,39	1,16	17,43	0,00
competition	2,57	1,43	2,43	1,59	2,07	1,55	2,01	1,51	1,62	1,50	18,55	0,00
Ill-health avoidance	2,76	1,29	3,40	1,30	3,75	1,09	3,70	1,13	3,99	0,95	19,18	0,00
strength and endurance	4,34	0,62	4,32	0,78	4,17	0,98	4,11	0,89	4,05	0,91	10,47	0,00

M, mean; SD, Standard deviation; F, value of statistical parameter F; p, statistical significance of F.

Table 4 shows us motivational structure in relation to education.

DISCUSSION

This is the first study to examine the structure of exercise motivation as a function of 6 different demographic variables. Training motives differed statistically significantly by gender, age, competition history, length of membership, relationship status, employment status, and education.

When analyzing differences in motivational structure between genders, our results confirmed that men exercise more for reasons of challenge, competition, and strength, as well as a desire for social recognition, similar to some older studies (Ednie & Stibor, 2017; Kilpatrick et al., 2005; Pauline, 2013). We have also confirmed that women exercise more for weight management reasons (Ingledeew & Sullivan, 2002; Kilpatrick et al., 2005; Markland & Ingledeew, 2007; Pauline, 2013; Roberts et al., 2015), but also because they want to stay healthy (Pauline, 2013).

Older studies have shown that younger people are more likely to be motivated by enjoyment of exercise and challenges (Biddle et al., 2003), and we have confirmed this. In addition, our detailed research found that young adults exercise for a variety of reasons, such as the goal of getting stronger and participating in sports or fitness activities, but they also have a desire for social recognition and connection with others. This is to be expected, as in recent years sports and body ideals have been discussed everywhere, including on online channels. Recent research has shown that online communication channels such as social media (Gilbert et al., 2021; Graff & Czarnomska, n.d.) or emails (Hevel et al., 2019) have an impact on exercise motivation. On the contrary, scientific data show that older adults are known to exercise more for extrinsic reasons (Jones et al., 2020; Molanorouzi et al., 2015) and that they are more concerned about their health (Newson & Kemps, 2007; Trujillo et al., 2004). Our results show that they exercise significantly more for revitalization and health motives than young adults. This can be explained by the fact that the importance of health increases with age. Interestingly, older adults are also more motivated than young adults to exercise because they want to control their weight. This could also be related to health benefits, as it is well known that obesity is unhealthy. Finally, our results show that flexibility is a motivational factor that is significantly more typical for older adults than for middle-aged or young adults. Maintaining or improving balance and coordination may be a particularly important motivator for older adults for several reasons. First, the risk of falls increases with age, and falls can have serious consequences, including injury and loss of independence. Exercise can help reduce the risk of fall-related injuries by 32-40% (Dipietro et al., 2019) and improve overall physical function. Second, maintaining or improving balance and coordination can also help maintain independence and mobility (Judge, 2003). Older adults who are able to move easily and safely will be more likely to continue to engage in activities they enjoy, such as walking or attending social events. Finally, exercise that challenges balance and coordination can be enjoyable in itself and provide a sense of

accomplishment and personal growth. Overall, maintaining or improving balance and coordination (agility) can be powerful motivators for older adults to exercise regularly.

Some studies (Frederick, 1994) have shown that people who engage in sports are driven by interest/enjoyment and competence motivation, while people who engage in fitness activities are driven by body-related motivation. In addition, it is known that people who used to participate in competitive sports participate more, especially after the age of 65 (Rhodes et al., 1999). It is also known that older men who have been sedentary all their lives are motivated to exercise because they want to control their weight, while those who have been active all their lives are more motivated because they want to be socially recognized, have a desire to connect with others, and are competitive. (Knowles et al., 2015). But what are the differences between people who used to play competitive sports and those who did not? (Cho & Beck, 2016) conducted a small study with international students and found that competitors exercise primarily for the challenge and competitive motives, but also to connect with others. Our results show that former competitors are more motivated to train because they enjoy the challenge and competition, but also because they want to be socially recognized than non-competitors, similar to a previous study with college students (Vučković et al., 2022b). Participants who have never exercised competitively are more motivated by avoiding health problems, which was not found in college students. This suggests that non-competitors exercise for health reasons and ex-competitors enjoy exercise itself, perhaps because they mostly grew up with sports and exercise behaviors.

Extrinsic motivations play a crucial role in the initial phase of PA, whereas intrinsic incentives are crucial for progress toward PA (Dacey et al., 2008). It is well known that people usually start exercising for extrinsic motives but sometimes stop exercising after 6 months (Dishman, 1981). Our study showed that people who exercise for longer than 6 months are more motivated for reasons of revitalization, stress management, and health, but also exercise for fun, challenge, competition, and the desire to lose weight and be socially recognized. These findings are consistent with previous findings on the motives of stress management, fun, and challenge, but not on social recognition, which relates to individuals who exercise for less than 6 months (Maltby & Day, 2001).

To our knowledge, there is no scientific evidence to support the relationship between relationship status and exercise motivation. Our results have shown that single study participants are significantly more motivated to exercise due to the motives of challenge and

competition. Interestingly, singles also exercise to look good and because they desire social recognition and connection with others. In contrast, participants who reported being in a relationship are more motivated to exercise than single participants because of health motives and because of their ability to exercise. This can be explained by the fact that single people have more opportunities to find someone if they are recognized and more attractive in society (Feingold, 1990). If they have found a partner, they do not exercise so much for these reasons, then their health is more important to them.

We found no scientific evidence of the relationship between motivation to exercise and practitioner education. Our study found that people who completed only secondary school exercise more for fun, challenge, competition, and social recognition than people with bachelor's or master's/PhD degrees. It is possible that people with higher education are socially recognized because of their education, so they exercise for other reasons.

However, people with a bachelor's, master's, or Ph.D. degree are more motivated to exercise because they fear poor health than people who have only attended secondary or elementary school, probably because educated people better understand the medical price of inactivity. In addition, people who have completed secondary school are more motivated by strength and endurance than people who have completed a bachelor's degree, and are also more motivated by dexterity than people who have only attended elementary school. It is obvious that with higher education, health motives are more important. This is probably because people with higher education better understand the importance of exercise in maintaining and improving overall health. They are also known to be more physically active (Gerovasili et al., 2015).

Finally, our results show that corporate employees are more motivated by revitalization, health motives, and agility than students, which was expected since it is known that students do not think about their health as much and have a lot of stress. Students are more motivated by challenges than company owners, probably because company owners have goals and challenges in their work and want to focus on them. Retired individuals exercise much less because of stress management than corporate employees, which was to be expected because retired people do not have as much stress (Midanik et al., 1995). In addition, corporate employees, owners, and even retirees are more motivated by health stress than students, which could be due to the age difference. Similarly, the motive to avoid poor health is significantly more motivated than students by both employees and company owners. Retired members are least motivated by their appearance, probably because appearance no longer matters to them.

CONCLUSION

In summary, this study contributes to existing knowledge about exercise motivation by examining differences in motivational structure among previously unstudied subgroups. Our study confirms previous work that motivational structure varies by gender, age, and length of membership. In addition, the results of our study show that individuals who are single have different motivations for exercise than individuals who are married or in a relationship. Similarly, individuals who participated in competitive sports in their youth participate in sports for different reasons than individuals who have never competed. In addition, the motivational structure for sports participation also varies among the unemployed, professionals, students, business owners, and retirees, as well as among people with different levels of education.

Implications for management

Understanding why people are motivated to exercise is extremely important for managers if they want to increase membership at their fitness centers (Caudwell & Keatley, 2016). They could use this knowledge to attract new customers or retain old ones. This is critical in the fast-growing and highly competitive health and fitness industry. Furthermore, by understanding the factors that influence motivation to exercise, researchers and policy makers can develop more effective programs and interventions to increase levels of physical activity in the population.

Strengths and limitations of the study

This is the first study to examine physical activity motivation in relation to marital status, employment status, education, and competitive history. In addition, this is the first study to examine the structure of physical activity motivation in the general Slovenian population.

This study provides valuable insights for theory and practice, but it also has some limitations. First, it is a cross-sectional study in which data were collected at a single point in time and no follow-up study was conducted. Second, the sample size of 764 gym members means that the conclusions can only be generalized to a certain extent. Third, the unique cultural and sociological characteristics of Slovenia mean that the results cannot be generalized on a global scale, and future research should be conducted in a more diverse geographic context.

Recommendations for future research

This work found that factors such as marital status, education level, and occupation can influence motivation to exercise. Given the importance of exercise to health and the economy, it would be beneficial for future research to explore ways to increase exercise motivation. With

advances in marketing technology and the availability of data, this could be accomplished through targeted marketing strategies. Thus, future research should be in the direction of how we can influence the motivation of different subgroups of people.

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