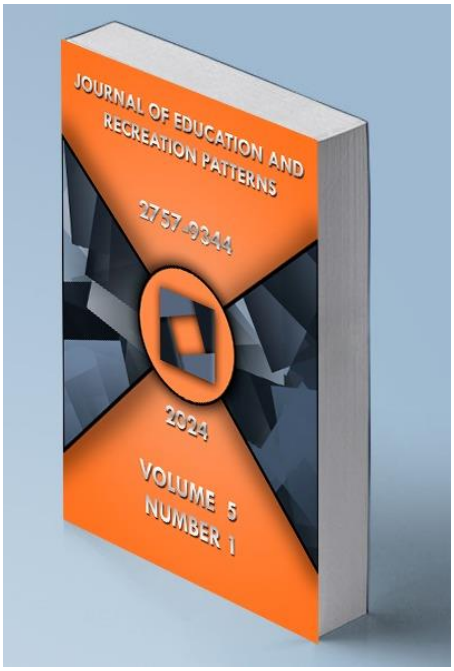


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# The Relationship Between Leisure Involvement, Flow Experience, and Life Satisfaction Levels of Fitness Center Members

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**ABSTRACT**

The aim of this study was to compare the leisure involvement, flow experience, and life satisfaction levels of fitness center members according to the gender and physical activity participation frequency variables. At the same time, the correlations between leisure involvement, flow experience and life satisfaction were identified. The research included a total of 309 fitness center members comprising 147 women and 162 men. Participants responded to the Leisure Involvement Scale, Recreational Flow Experience Scale and Satisfaction with Life Scale. Analysis of data used descriptive statistics, t test, ANOVA, MANOVA, correlation and regression tests. According to physical activity participation frequency, the leisure involvement subdimensions, flow experience and life satisfaction mean scores were identified to differ at significant levels ($p<0.05$). For the variables with significant difference identified, fitness center members participating in weekly physical activity more often had higher mean scores compared to others. Correlation analysis results found significant and positive levels of correlation between leisure involvement, flow experience and life satisfaction mean scores ($p<0.05$). According to the results of regression analysis, leisure involvement was a significant predictor of flow experience and life satisfaction. In conclusion, individuals participating in physical activity more frequently had an increase in leisure involvement levels, along with increases in flow experience and life satisfaction levels. Based on this, leisure involvement played a determinative role in the flow experience and life satisfaction levels of fitness center members who are regularly physically active.

**Keywords:** Flow Experience, Leisure Involvement, Life Satisfaction.

## INTRODUCTION

The Industrial Revolution brought sociological, political, technological, economic, cultural and demographic changes in a social context and in this way laid the foundations for modern industrial societies (Ashton, 1997; Hudson, 2014). Industrialization provided the opportunity for more efficient production along with the use of machinery and caused reorganization of people's working hours (Xu et al. 2018). Though the first stage of industrialization involved long working hours and difficult conditions, over time it led to a reduction in people's working hours and the need for more leisure (Cunningham, 2016). From past to present, apart from working life and basic needs, leisure has offered people the opportunity to participate in cultural, artistic, social, touristic and physical activities (Blackshaw, 2010; Mansfield et al., 2020). Individuals can participate in leisure activities based on their interests or by considering the benefits of the activities (Doğan et al., 2023; Li et al., 2021). Activities like going to the theater, chatting with friends, taking vacations, swimming and going to the gym may be observed, varying according to the individual's interests. Researchers (Gürbüz, 2017; Kyle et al., 2007; Sivan et al., 2019) investigate this paradigm under the heading of 'leisure involvement' in social psychology to explain the reasons for choosing, and levels of, leisure activity among individuals.

Leisure involvement represents the psychological status of individuals created within the framework of impulses, motivation, personal and social benefits related to activities in the stages of participation and process of leisure activities (Havitz & Dimanche, 1999). For example, elements increasing involvement and ensuring continuity for individuals related to physical activity are motivation and impulses about its physical, social and psychological benefits (Hoare et al., 2017; Knittle et al., 2018). Kyle et al. (2007) stated that there are five facets comprising individual leisure involvement. a) Attraction represents the elements attracting individuals to leisure activities. b) Centrality represents the importance or central role that the leisure activity experience plays in an individual's life. c) Social bonding represents the development and strengthening of social connections, relationships and feeling of belonging created among individuals participating in common leisure activities. d) Identity affirmation represents the process where individuals use their leisure activities to strengthen different aspects of the self and to discover their personalities. e) Identity expression means that the leisure activities that individuals participate in provide some clues about them to those around them. All these facets are psychological dimensions explaining the level of leisure involvement of individuals (Kyle & Chick, 2002; Matsumoto et al., 2018). High levels of involvement related to leisure activities of individuals means their activities provide by satisfaction (Lee et al., 2023; Sato et al., 2017) and flow experience (Tao et al., 2022). In the literature, there are results showing positive correlations between leisure involvement and flow experience (Chang, 2017; Cheng et al., 2016).

Flow theory, by one of the pioneering scientists in the field of positive psychology Mihaly Csikszentmihalyi, is described as the individual's complete integration with the action they are engaged in, being involved with all their being, using their skills to the fullest, and hence time passes quickly (Nakamura & Csikszentmihalyi, 2009). Flow emerges when there is a balance between the difficulty of the task being met by the abilities of the individual. If the task is very difficult or very easy compared to the individual's abilities, flow does not occur (Csikszentmihalyi et al., 2018). Flow theory is generally associated with activities like sport, art, working, games, etc. (Ahn & Song, 2024; Habe et al., 2021; Perttula et al., 2017). This situation works in the same way during the individual's participation in leisure activities. Freire et al. (2016) emphasized the importance of psycho-social effects provided to people by flow experience during leisure activities. Flow experience, along with variables like leisure activity types and gender, is seen as a factor affecting the life satisfaction of individuals (Hou & Jiang, 2020).

The concept of life satisfaction, associated with the words happiness and welfare, represents how satisfied individuals are with their lives (Maddux, 2018). Life satisfaction is a paradigm measured subjectively as the positive and negative moods an individual feels related to their lives and the degree to which these meet or do not meet their expectations (Veenhoven, 1996). In this context, Brown and Duan (2007) stated that the life experiences of individuals, along with their demographic and psychological features, were determinant factors for life satisfaction. Perhaps the most important of these determinants is leisure participation. Due to the leisure activities that individuals participate in, they sustain a quality life and obtain life satisfaction (Khindri & Tanwar, 2023; Stenseng & Phelps, 2013; Tükel & Temel, 2020). Participation in physical activity during leisure, especially, offers positive contributions to the life satisfaction of individuals (Elçi et al., 2019; Wypych-Ślusarska et al., 2023). An et al. (2020) identified that physical activity was very important in the context of life satisfaction for young, middle-aged and elderly adults and concluded that as the ages of individuals participating in physical activity increase, life satisfaction levels increase.

In terms of participation in physical activities, fitness centers are very important for individuals (Şirin et al., 2023). Fitness clubs offer the opportunity for sustainability of participation in physical activities for individuals who are members (Park & Kwon, 2022). In addition to sustainability of physical activity participation for members, fitness centers are important for leisure involvement (Demirel, 2019; Wang et al., 2022). Regular participation in physical activity during leisure can provide individuals with flow experience and also enable them to achieve life satisfaction. As a result, there may be positive correlations between leisure involvement, flow experience and life satisfaction in the context of physical activity participation by fitness club members. In the literature, there are studies related to the concepts of leisure involvement (Gürbüz et al., 2018; Tao et al., 2022), recreational flow experience (Ayhan et al., 2020; Jackson et al. 2023) and life satisfaction (Russo-Netzer & Tarrasch, 2024). Scientists (Chang, 2017; Cheng et al. 2016; Demirel et al., 2022) relationally investigated leisure involvement and flow experience in different sample groups. There is research in the literature stating the relationship between leisure involvement and life satisfaction (Sato et al., 2017). Additionally, there are studies in the literature expressing the relationship between flow experience in the recreational context and life satisfaction (Chen, 2010; Hou & Jiang, 2020). However, there was no study encountered which correlationally investigated the leisure involvement, recreational flow experience and life satisfaction concepts in the context of physical activity. Given the various health benefits of physical activity, research in these areas can aid in developing strategies aimed at enhancing individuals' overall well-being. Considering the benefits (Callow et al., 2020; Mahindru et al. 2023) provided to human health in social, psychological and physiological contexts by physical activity, investigating the correlations between leisure involvement, recreational flow experience and life satisfaction levels of fitness center members will provide significant contributions to the literature.

In light of this information, the aim of the study was to compare the leisure involvement, flow experience and life satisfaction of individuals participating in physical activity with a variety of independent variables and to identify the correlations between these concepts. In line with this aim, answers were sought for the following questions.

Are there differences in the leisure involvement, flow experience and life satisfaction levels of fitness center members according to the variables of gender and physical activity participation frequency?

Are there correlations between leisure involvement, flow experience and life satisfaction levels of fitness center members?

## METHOD

### Research Design

In accordance with the aim of the study, the screening model from the quantitative research methods was used. The screening model is defined as 'research models aiming to determine the presence and degree of change between two or more variables' (Karasar, 2023).

### Universe and Sample

The research group were participants in physical activity with membership of a fitness club (İstanbul-Beşiktaş). Participants, chosen with the convenient sampling method (mean age 31.21±7.97 years), comprised a total of 309 people including 147 women (47.6%) and 162 men (52.4%). Convenience sampling, also known as availability sampling, is a type of non-probability sampling method where participants are selected based on their easy accessibility and proximity to the researcher (Simkus, 2022). Of the fitness center members participating in physical activity, 11.7% had high school, 64.1% had university and 24.3% had master or doctorate educational level. Among the fitness center members, 43.3% participated in physical activity 1-2 days per week, 49.8% participated 3-4 days and 6.8% participated on 5 or more days. The mean years of membership was 4.73 for the fitness club (Table 1).

**Table 1**

*Descriptive statistics for participants*

| Variables | N | % |
|---|---|---|
| **Gender** | | |
| Female | 147 | 47.6 |
| Male | 162 | 52.4 |
| **Education** | | |
| High school | 36 | 11.7 |
| College | 198 | 64.0 |
| Master's or PhD | 75 | 24.3 |
| **Physical Activity Participation Frequency (Weekly)** | | |
| 1-2 day | 134 | 43.4 |
| 3-4 day | 154 | 49.8 |
| 5 or more days | 21 | 6.8 |
| **Total** | **309** | **100** |

### Data Collection Tools & Process

***Demographic Information Form:*** The personal information form created by the researchers was used in this study to obtain some demographic information about participants (age, sex, educational level, physical activity participation frequency and years of membership).

***Leisure Involvement Scale (LIS):*** The scale developed by Kyle et al. (2007) had validity and reliability studies for the Turkish form performed by Gürbüz et al. (2018). The scale comprises 5 subdimensions (attraction, centrality, social relations, identity affirmation and identity expression) and 15 items and is rated from 1 – definitely disagree to 5 – definitely

agree. The Cronbach alpha internal consistency coefficients for the scale adapted to Turkish varied from 0.58 to 0.80.

***Recreational Flow Experience Scale (RFES):*** This scale was developed by Ayhan et al. (2020) and includes a single dimension and 9 items. Items are rated from 1 – definitely disagree to 7 – definitely agree. The Cronbach alpha internal consistency coefficient for the scale was 0.94.

***Satisfaction with Life Scale (SWLS):*** The scale developed by Diener et al. (1985) had validity and reliability examined by Dağlı and Baysal (2016). The scale has a single dimension and 5 items, rated from 1 – definitely disagree to 5 – completely agree. The Cronbach alpha internal consistency coefficient for the Turkish adaptation of the scale was 0.88.

The study was completed within the framework of the "Institutions of Higher Education Scientific Research and Publication Ethics Directive". In accordance with the aim of the research, necessary permissions were obtained from management of five separate fitness centers. Fitness center members who regularly participated in physical activity were included in the research on a voluntary basis. Participants participated in the research through face-to-face interviews, e-mail and online internet tools. Completion of the application form, which included information related to the aim of the research and data collection tools, took about 10 minutes for each participant. The data collection process took approximately three weeks to complete. Data with valid and acceptable quality were transferred to the SPSS statistical program for analysis.

### Ethical Procedures

Approval related to the suitability of the research in ethical terms was obtained from the Scientific Research and Publication Ethics Committee of the National Defense University Rectorate (12.04.2023/E-54589112-824.99-2268067).

### Data Analysis

Data collected related to the research were analyzed with SPSS 22 statistical program. Analysis of data in line with the aim of the research used frequency, t test, MANOVA, ANOVA, Pearson correlation and regression tests. To determine whether data met the preconditions for parametric tests, the decision was made to examine skewness and kurtosis values (Kline, 2011) and equivalence of variance (Levene) test (Büyüköztürk, 2012). The skewness (-1.25 to -0.05) and kurtosis (-0.21 to 1.87) values for the research variables were within the ±2 interval and the data was shown to have normal distribution (George and Mallery, 2020). The Cronbach alpha internal consistency coefficients were calculated to determine reliability of the scales. The Cronbach alpha internal consistency coefficients varied from 0.72 to 0.89 for the LIS. Internal consistency coefficients were identified as 0.94 for the RFES and 0.84 for the SWLS.

## FINDINGS

In this section, findings related to the leisure involvement, recreational flow experience and life satisfaction levels with gender and physical activity participation frequency variables are given. Additionally, the analysis results revealing the correlations between leisure involvement, flow experience and life satisfaction are included.

**Table 2**

*Analysis results according to gender variable*

| Scales Sub-Dimensions | Female (N= 147) | | Male (N= 162) | | p |
|---|---|---|---|---|---|
| | Mean | Sd. | Mean | Sd. | |
| **LIS** | | | | | |
| Attraction | 3.91 | 0.93 | 3.80 | 0.84 | 0.28 |
| Centrality | 3.27 | 0.99 | 3.11 | 0.92 | 0.13 |
| Social bonding | 3.66 | 0.85 | 3.68 | 0.87 | 0.84 |
| Identity affirmation | 3.56 | 0.92 | 3.39 | 0.90 | 0.10 |
| Identity expression | 3.19 | 1.03 | 2.98 | 1.00 | 0.08 |
| **RFES** | 5.78 | 1.10 | 5.74 | 1.07 | 0.76 |
| **SWLS** | 3.17 | 0.85 | 3.20 | 0.92 | 0.73 |

LIS= Leisure Involvement Scale, RFES= Recreational Flow Experience Scale, SWLS= The Satisfaction with Life Scale.

According to MANOVA analysis results, the mean scores for the LIS factors of fitness center members were not identified to differ by a statistically significant level according to the gender variable ($p>0.05$). The t-test analysis results show there were no significant differences in mean RFES and SWLS scores for male and female fitness center members ($p>0.05$) (Table 2).

**Table 3**

*Analysis results according to physical activity participation frequency (weekly) variable*

| Scales Sub-Dimensions | 1-2 day (1) (n= 134) | | 3-4 day (2) (n= 154) | | 5 or more day (3) (n= 21) | | p | Significant Difference (Tukey) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Sd. | Mean | Sd. | Mean | Sd. | | |
| **LIS** | | | | | | | | |
| Attraction | 3.45 | 0.89 | 4.09 | 0.76 | 4.68 | 0.46 | 0.00* | 1-2 / 1-3 / 2-3 |
| Centrality | 2.83 | 0.94 | 3.38 | 0.84 | 4.12 | 0.91 | 0.00* | 1-2 / 1-3 / 2-3 |
| Social bonding | 3.42 | 0.85 | 3.84 | 0.81 | 4.00 | 0.82 | 0.00* | 1-2 / 1-3 |
| Identity affirmation | 3.19 | 0.93 | 3.61 | 0.85 | 4.25 | 0.57 | 0.00* | 1-2 / 1-3 / 2-3 |
| Identity expression | 2.85 | 0.93 | 3.17 | 1.04 | 3.85 | 0.92 | 0.00* | 1-2 / 1-3 / 2-3 |
| **RFES** | 5.29 | 1.21 | 6.03 | 0.82 | 6.69 | 0.48 | 0.00* | 1-2 / 1-3 / 2-3 |
| **SWLS** | 2.98 | 0.86 | 3.34 | 0.89 | 3.41 | 0.82 | 0.00* | 1-2 |

LIS= Leisure Involvement Scale, RFES= Recreational Flow Experience Scale, SWLS= The Satisfaction with Life Scale.

According to MANOVA analysis results, the basic effect of physical activity participation frequency on LIS was significant. There were statistically significant differences identified between the mean scores for the attraction ($F_{(2.306)}= 34.67$; $p<0.05$), centrality ($F_{(2.306)}= 26.04$; $p<0.05$), social bonding ($F_{(2.306)}=10.65$; $p<0.05$), identity affirmation ($F_{(2.306)}=17.17$; $p<0.05$), and identity expression ($F_{(2.306)}=10.56$; $p<0.05$) subscales. For all LIS subscales with significant differences identified, fitness center members who participated in physical activity more frequently had higher mean scores compared to other groups. ANOVA analysis and later Tukey HSD test showed the physical activity participation frequency variable caused a significant difference in mean RFES ($F_{(2.306)}= 29.44$; $p<0.05$) and SWLS ($F_{(2.306)}= 5.05$; $p<0.05$) of fitness center members. Both RFES and SWSL mean scores were higher for

individuals who participated in physical activity more frequently compared to other groups (Table 3).

**Table 4**

*Correlation analysis results (LIS, RFES, SWLS)*

| | LIS (F1) | LIS (F2) | LIS (F3) | LIS (F4) | LIS (F5) | RFES | SWLS |
|---|---|---|---|---|---|---|---|
| **LIS (F1)** | 1 | | | | | | |
| **LIS (F2)** | 0.66** | 1 | | | | | |
| **LIS (F3)** | 0.42** | 0.50** | 1 | | | | |
| **LIS (F4)** | 0.62** | 0.66** | 0.52** | 1 | | | |
| **LIS (F5)** | 0.55** | 0.62** | 0.40** | 0.60** | 1 | | |
| **RFES** | 0.74** | 0.61** | 0.51** | 0.64** | 0.52** | 1 | |
| **SWLS** | 0.33** | 0.29** | 0.27** | 0.25** | 0.19** | 0.37** | 1 |

***Note:*** **= p<0.01, LIS= Leisure Involvement Scale (F1= Attraction, F2= Centrality, F3= Social bonding, F4= Identity affirmation, F5= Identity expression), RFES= Recreational Flow Experience Scale, SWLS= The Satisfaction with Life Scale.

According to Pearson correlation analysis results, leisure involvement, flow experience and life satisfaction mean scores were found to have statistically high, moderate and partially low level significant and positive correlations (Table 4).

**Table 5**

*The power of leisure involvement to predict flow experience and life satisfaction*

| | **Recreational Flow Experience** | | | | **Life Satisfaction** | | | |
|---|---|---|---|---|---|---|---|---|
| | **B** | **S. Error** | **β** | **p** | **B** | **S. Error** | **β** | **p** |
| **Constant** | 1.540 | 0.199 | - | 0.00 | 1.568 | 0.249 | - | 0.00 |
| Attraction | 0.616 | 0.061 | 0.505 | 0.00 | 0.249 | 0.076 | 0.249 | 0.00 |
| Centrality | 0.058 | 0.063 | 0.051 | 0.35 | 0.089 | 0.078 | 0.096 | 0.25 |
| Social bonding | 0.212 | 0.053 | 0.168 | 0.00 | 0.155 | 0.067 | 0.150 | 0.02 |
| Identity affirmation | 0.232 | 0.062 | 0.196 | 0.00 | -0.002 | 0.078 | -0.002 | 0.98 |
| Identity expression | 0.023 | 0.051 | 0.022 | 0.64 | -0.059 | 0.064 | -0.068 | 0.35 |
| | **R= 0.795, $R^2$= 0.631** | | | | **R= 0.374, $R^2$= 0.140** | | | |
| | **$F_{(5.303)}$= 103.767, p= 0.00** | | | | **$F_{(5.303)}$= 9.851, p= 0.00** | | | |

Regression analysis results found the LIS attraction (β= 0.505; p= 0.00), social bonding (β= 0.168; p= 0.00), and identity affirmation (β= 0.196; p= 0.00) subscales positively and significantly predicted RFES ($R^2$= 0.631; $F_{(5.303)}$= 103.767). There was a positive and high level of correlation between the leisure involvement of fitness center members and recreational flow experience (R= 0.795), while leisure involvement explained 63% of the total variance in recreational flow experience. The LIS attraction (β= 0.249; p= 0.00) and social bonding (β= 0.150; p= 0.02) scales positively and significantly predicted SWLS ($R^2$= 0.140; $F_{(5.303)}$= 9.851). There was a positive and moderate correlation between leisure involvement and life satisfaction of participants (R= 0.374), with leisure involvement explaining 14% of the total variance in life satisfaction (Table 5).

## DISCUSSION & CONCLUSION

The aim of the study was to determine the differences in leisure involvement, flow experience and life satisfaction levels of fitness center members. At the same time, the aim was

also to identify the correlations between leisure involvement, flow experience and life satisfaction levels.

Within the scope of the research, leisure involvement, flow experience and life satisfaction scores were not found to differ according to the gender variable (Table 2). Leisure involvement, emerging as an important concept in the literature with the aim of understanding behavior related to leisure participation, has received very little interest in the context of gender. Wiley et al. (2000) explained differences in leisure activity choices of individuals in the context of gender with social ideologies. Considering the positive outcomes of physical activity (Bayrakdar et al., 2019; Lee et al., 2023), social ideologies provide consensus without differentiating men and women (World Health Organization, 2019). Research about extreme athletes identified the attraction, centrality and identity expression dimensions of leisure involvement and the flow experience related to the activity were significantly different in favor of male participants (Chang, 2017). However, Demirel et al. (2022) concluded that there was no significant difference according to the gender variable for leisure involvement and flow experience of individuals playing tennis for recreational purposes. There is evidence in the literature showing no significant difference according to the gender variable for individuals participating in physical activity during leisure (Busing & West, 2016; Küçük Kılıç et al., 2016). These results overlap with the findings of our research. When the type of physical activity during leisure is assessed in the social context, the emergence of significant differences according to the gender variable may be due to the meaning given to that activity by women and men, along with the degree of difficulty (Brajša-Žganec et al. 2011). At the point of participation in physical activity in fitness centers, offering equal opportunities by considering customer satisfaction without regard to gender may have removed the differences between male and female members in the context of leisure involvement, flow experience and life satisfaction.

Within the scope of the research, scores for leisure involvement, flow experience and life satisfaction were found to differ by significant levels in favor of individuals participating more frequently in physical activity (Table 3). Individuals may gain many acquirements by being involved in physical activity during leisure (Maher et al., 2015; Singh et al., 2023; Warburton & Bredin, 2017). Havitz et al. (2013) identified that physical activity caused an increase in the leisure involvement of individuals and offered both physical and psychological outcomes according the involvement level. A study of fitness center members (Serdar, 2019) determined that individuals participating more frequently in physical activity had significantly higher leisure involvement compared to others. Additionally, there are results in the literature showing that physical activity participation provides flow experience for individuals (Huang et al., 2018; Jackman et al., 2019). Metin & Düşmezkalender (2022) identified results related to the feeling of flow experienced when individuals participating in mountain climbing activities overcame difficulties they experienced during the activity. Researchers (Bum et al. 2022) concluded that individuals playing golf in the virtual environment experienced more flow than those physically playing; however, there was no significant difference between the two groups in terms of life satisfaction. The concept of life satisfaction had been very comprehensively investigated in the literature within the scope of physical activity (An et al., 2020; Maher et al., 2015). The results of the investigations found that regular participation in physical activity is a positive reflection of the life satisfaction of individuals (Kim et al., 2021; Skałacka & Błońska, 2023). The most basic factor affecting the leisure involvement levels of people is the activity they participate in. The opportunities provided to people by fitness centers and customer satisfaction may cause an increase in involvement in physical activity. When people feel the physical and psychological benefits from the activities they participate in, their involvement may increase. At the same time, when individuals gain optimal balance by succeeding in physical activities at fitness centers, flow experience may emerge. Involvement in physical activity and flow experience may provide satisfaction within the life of the individual.

Within the scope of the research, leisure involvement, flow experience and life satisfaction levels of fitness center members had positive and significant correlations (Table 4). At the same time, leisure involvement was found to predict flow experience and life satisfaction at significant levels (Table 5). Scientists (Ekkekakis, 2023; Isidoro-Cabañas et al., 2023; Remme et al., 2021; Yarımkaya & Esentürk, 2022) state that physical activity involvement during leisure is very important for human health and psychology. Involvement in physical activity during leisure provides important contributions to peoples' life satisfaction (An et al., 2020). Sato et al. (2017) found that leisure involvement in the context of walking provided positive contributions to life satisfaction of people. Domestic research (Aktop and Göksel, 2023; Çevik et al., 2021) provided evidence of a strong relationship between leisure involvement and life satisfaction. Additionally, when the relevant literature is investigated, positive correlations were identified between leisure and flow experience (Chang, 2017; Ding et al., 2023). High levels of leisure involvement were related to stronger flow experience (Tao et al., 2022). Cheng et al., (2016) also demonstrated how leisure involvement positively influences the flow experience, specifically in hiking activities, showing that greater psychological commitment during leisure leads to higher flow experiences. Another result that overlaps with the findings of our research is that flow experience is related to life satisfaction. A positive and high level of correlation was identified between flow experience and life satisfaction of recreational runners (Tian et al., 2022). Parallel to this research result, there are studies showing positive correlations between flow experience and life satisfaction in the literature (Bum et al., 2022; Hou & Jiang, 2022; Tian et al., 2022). All these results support our research findings. Fitness center members participate in activity based on their involvement in physical activity in line with their own wishes. In this context, this means that time will pass in a fun and more rapid way for people with high involvement in physical activity. Considering the benefits provided by physical activity, activities with high involvement and flow experience are brought to a point where they affect life satisfaction.

## Conclusion & Recommendation

In conclusion, leisure involvement, recreational flow experience and life satisfaction levels of fitness center members were in favor of individuals participating more frequently in physical activity. There were positive correlations between leisure involvement, recreational flow experience and life satisfaction levels of fitness center members. Additionally, leisure involvement was concluded to be an effective factor on recreational flow experience and life satisfaction of fitness center members. When the results are considered, studies related to individual participation in physical activity may be increased. Policies related to increasing leisure involvement levels of individuals participating or wanting to participate in physical activity may be developed in fitness centers. Additionally, following developments and innovations related to fitness centers in order to ensure time passes in more entertaining and quality ways for individuals participating in physical activity in fitness centers is included among the recommendations of the research.

Additionally, fitness center management should develop various strategies to enhance members' fitness involvement, flow experience, and life satisfaction levels. These strategies may include offering high-quality and diverse services, creating programs tailored to individual members' needs, and establishing continuous feedback mechanisms (Sevilmiş et al., 2024). Additionally, the physical environment of fitness centers directly impacts members' experiences. Clean, organized, and modern facilities increase members' interest in the center and facilitate their experience of flow (León-Quismondo et al., 2020).

Although this research contributes to the leisure literature in the context of fitness center members, it has some limitations. Primarily, the study was tested using data obtained from Turkey's largest metropolis (İstanbul-Beşiktaş). Data were collected from six different fitness centers, and members with at least six months of membership were included in the research.

The research parameters can be tested in studies encompassing fitness center members from different countries using various sampling methods. In this context, future research utilizing data from different countries will help generalize the findings of the current study. This study examined leisure involvement, flow experience, and life satisfaction in the context of fitness center members. Future research with different sample groups investigating the relationships between these parameters will also contribute to the literature by providing model studies. Additionally, significant differences can be observed between personal variables such as gender, visit frequency, and membership duration of fitness participants and their levels of involvement, flow, and life satisfaction. In future research, it will be important to increase these personal variables to better understand the topic within a socio-psychological context.

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## Author(s)' statements on ethics and conflict of interest

**Ethics statement:** We hereby declare that research/publication ethics and citing principles have been considered in all the stages of the study. We take full responsibility for the content of the paper in case of dispute.

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