





Wherever the Road Takes Me: Motivation and Wellbeing of Cyclists

Yol Nereye Giderse: Pedallayanların Motivasyonu ve İyi Oluđu

Research Article / Arařtırma Makalesi

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Received / Geliő Tarihi : 24.10.2025
Accepted / Kabul Tarihi : 25.11.2025
Published / Yayın Tarihi : 31.12.2025

Ethical Statement / Etik Bilgilendirme
This study was ethically approved by the decision of the Alanya Alaaddin Keykubat University Social and Humanities Scientific Research and Publication Ethics Committee dated 12/03/2025 and numbered 2025/19.

DOI: 10.53434/gbesbd.1810087

Abstract

This study aims to determine the mediating role of leisure motivation in the relationship between serious leisure activities and psychological wellbeing among cyclists. The research employs a descriptive design based on a relational survey model. The sample consisted of 286 cyclists (208 male, 78 female) selected through snowball sampling. The mean age of participants was 27.51±12.41 years. Data collection instruments included the Serious Leisure Inventory and Measure-Short Form ($\alpha=0.93$), Leisure Motivation Scale ($\alpha=0.78$), and Psychological Wellbeing Scale ($\alpha=0.88$). Mediation analysis was conducted using Hayes' (2018) PROCESS macro Model 4 with 5000 bootstrap resampling procedures. Pearson correlation analysis revealed positive moderate significant relationships among all variables ($p<0.001$). Results demonstrated that serious leisure had positive effects on leisure motivation ($\beta=0.518$, $p<0.001$) and psychological wellbeing ($\beta=0.398$, $p<0.001$). Leisure motivation also positively influenced psychological wellbeing ($\beta=0.612$, $p<0.001$). Mediation analysis indicated that leisure motivation played a partial mediating role in the relationship between serious leisure and psychological wellbeing (indirect effect $\beta=0.317$, 95% CI: 0.207-0.445). The findings suggest that serious leisure participation among cyclists positively affects their psychological wellbeing both directly and indirectly through leisure motivation. This research contributes to understanding the psychological mechanisms underlying leisure experiences in cycling contexts and provides evidence for the Self-Determination Theory framework in serious leisure activities.

Keywords: Serious leisure, Leisure motivation, Psychological wellbeing, Cycling, Mediation analysis

Öz

Bu arařtırmanın amacı, bisikletçilerde ciddi serbest zaman aktivitelerinin psikolojik iyi oluđu ile iliřkisinde serbest zaman motivasyonunun aracı rolünü belirlemektir. Arařtırma, iliřkisel tarama modeline dayalı betimsel bir çalıřmadır. Arařtırmanın örneklemini kartopu örnekleme yöntemi ile seçilen 286 bisikletçi (208 erkek, 78 kadın) oluřturmaktadır. Katılımcıların yaő ortalaması 27.51±12.41'dir. Veri toplama araçları olarak Ciddi Serbest Zaman Ölçeđi-Kısa Formu ($\alpha=0.93$), Serbest Zaman Motivasyon Ölçeđi ($\alpha=0.78$) ve Psikolojik İyi Oluđu Ölçeđi ($\alpha=0.88$) kullanılmıřtır. Verilerin analizinde Hayes (2018) PROCESS makrosu Model 4 kullanılarak aracılık analizi gerçekteřirilmifitir. Bootstrap yöntemi ile 5000 yeniden örnekleme yapılmıřtır. Pearson korelasyon analizi sonuçları, tüm deđiřkenler arasında pozitif yönlü orta düzeyde anlamlı iliřkiler olduđunu göstermiřtir ($p<0.001$). Bulgular, ciddi serbest zamanın serbest zaman motivasyonu üzerinde ($\beta=0.518$, $p<0.001$) ve psikolojik iyi oluđu üzerinde ($\beta=0.398$, $p<0.001$) pozitif etkiye sahip olduđunu ortaya koymuřtur. Serbest zaman motivasyonunun da psikolojik iyi oluđu üzerinde pozitif etkisi bulunmuřtur ($\beta=0.612$, $p<0.001$). Aracılık analizi, serbest zaman motivasyonunun ciddi serbest zaman ile psikolojik iyi oluđu arasındaki iliřkide kısmi aracılık rolü oynadıđını göstermiřtir (dolaylı etki $\beta=0.317$, %95 GA: 0.207-0.445). Sonuç olarak, bisikletçilerin ciddi serbest zaman katılımı psikolojik iyi oluđu hem doğrudan hem de serbest zaman motivasyonu aracılıđıyla dolaylı olarak pozitif yönde etkilemektedir.

Introduction

Leisure activities are defined as activities freely undertaken by individuals for purposes of rest, amusement, or personal development, outside of their work, educational, and obligatory daily responsibilities (Caldwell, 2005; Gürbüz, 2017; Mansfield et al., 2020; Roberts, 2006). This concept provides individuals with the opportunity to engage in activities that offer avenues for identity development, self-expression, and the exercise of free will, thereby enabling the fulfillment of fundamental needs such as social interaction, self-actualization, and stress management (Ahn & Song, 2023; Jun & Kyle, 2012). Participation in leisure activities has been observed to contribute to social cohesion due to its role in supporting individuals' social skills and increasing social capital (Bone et al., 2022; Oja et al., 2011; Kleiber, 2020; Koçak & Gürbüz, 2024). Specifically, regular, repeated, and effort-focused leisure activities, such as the discipline of cycling, can contribute to participants' wellbeing because they offer both physical activity and social resources (Rojas-Rueda et al., 2011; Woodcock et al., 2014). In this context, individuals' motivational tendency toward leisure activities, in other words, leisure motivation, emerges as a decisive factor in the manifestation of positive outcomes for individuals (Beard & Ragheb, 1983; Kim et al., 2019; Molanorouzi et al., 2014).

The serious leisure framework provides a strong theoretical and empirical foundation for explaining the role of characteristics such as perseverance, specialization, identity, and commitment that participants ascribe to their leisure pursuits on individual wellbeing (Stebbins, 2017; Gould et al., 2008). This approach suggests that when an activity transcends being merely a casual pastime and incorporates features like personal development, career-like progression, attachment, and community identity, it yields deeper psychological outcomes for the participant (Stebbins, 2017). Empirical studies have demonstrated that individuals highly involved in serious leisure exhibit increases in their levels of leisure satisfaction and wellbeing (Heo et al., 2013; Tian et al., 2020; Liu & Yu, 2015). In this context, individuals who cycle also present a suitable sample for the serious leisure profile due to the qualities required, such as regular training, participation in races/events, club affiliation, and technical mastery (Armbrecht, 2023).

Leisure motivation is a fundamental factor that determines individuals' desire to participate in leisure activities and the positive emotions they derive from them, and it is examined under two main components: intrinsic and extrinsic motivation. Intrinsic motivation represents an individual performing an activity to satisfy their internal needs, for enjoyment, or out of interest, while extrinsic motivation refers to an individual's participation in activities due to external factors such as external rewards, recognition, social acceptance, or pressure (Alexandris et al., 2002; Chen & Pang, 2012). Within this framework, the intrinsic and extrinsic components of leisure motivation assume decisive roles in individuals' sustained participation in activities

and their levels of leisure satisfaction (Beggs & Elkins, 2010). Intrinsically motivated leisure activities strengthen individuals' sense of agency and identity—the foundation of experiencing life as meaningful—by allowing them to engage in actions congruent with personal interests and values (Martela & Steger, 2016). Similarly, leisure satisfaction serves as an empowering mechanism that reflects the successful realization of personally significant experiences and goals (Newman et al., 2014). These meaningful leisure experiences contribute to eudaimonic wellbeing by facilitating reflection, connection with others, and personal growth, all of which are strongly associated with the development of a coherent life purpose (Ryff & Singer, 1998; Steger et al., 2006). It is an expected outcome that the experiences provided by serious leisure influence an individual's motivational profile, which in turn shapes their wellbeing (Gould et al., 2008; Lee & Hwang, 2018).

Psychological wellbeing is a profound concept that individuals seek throughout their lives and that shapes their existential experiences. From psychological and philosophical perspectives, psychological wellbeing represents the totality of individuals' life experiences, values, and goals (Wolf, 2012). Frankl (1985) stated that psychological wellbeing acts as a guide when individuals face challenges and events. This sense of meaning provides a motivational and directional framework as individuals construct their own life stories (Martela & Steger, 2016). Psychological wellbeing is deepened through the goals and purposes set by individuals; moreover, this pursuit is particularly enriched through voluntary activities in the context of leisure activities. The positive effects of sport and physical activity participation on psychological wellbeing are supported by extensive research in both university student and adult populations (Yavuz & İlhan, 2023; Chekroud et al., 2018).

Cycling has become a noteworthy leisure activity in recent years, with its increasing popularity as both a recreational pursuit and a mode of transportation. Martín-Rodríguez et al. (2024) emphasize that the symbiotic relationship between sport practice and psychological wellbeing has recently emerged as a focus of academic and public interest. In their comprehensive narrative review on the benefits, risks, and barriers of cycling, Logan et al. (2023) demonstrated that the potential for cycling participation could be enhanced worldwide, yielding widespread benefits for health, wellbeing, the environment, and the economy.

Participation in cycling activities provides significant contributions to individuals' personal development, in addition to strengthening social solidarity by supporting the solution of social problems and suggests that this research will significantly contribute to the literature. Not only the cyclists' level of physical activity, but also their way of experiencing this activity within the context of "serious leisure" and their motivational profile are becoming determinants of psychological wellbeing

(Armbrecht, 2023; Heo et al., 2013). Furthermore, by integrating leisure motivation, satisfaction, and psychological wellbeing within a single mediation model, this study offers a novel contribution to leisure literature, specifically within the context of cycling, an area often overlooked. Information regarding the concepts of leisure motivation (Ayhan & Öçalan, 2022; Chen et al., 2013; Demirel et al., 2022; Molanorouzi et al., 2014), leisure satisfaction (Doğan & Gürbüz, 2024; Tian 2020; Satılmış et al., 2024), and psychological wellbeing (Czekierda et al., 2017; Guinée et al., 2022; İnal & Salar, 2020; Nozick & Benatar, 2016) is present in the literature. Moreover, research on the correlation between leisure motivation and satisfaction is also available (Beggs & Elkins, 2010; Chen et al., 2013). However, a study examining the relationships among these three concepts specifically in the context of cycling activities has not been encountered.

The present study aims to clarify how serious leisure involvement relates to psychological wellbeing among individuals who participate in cycling activities, with a specific focus on examining whether leisure motivation functions as a mediating mechanism within this relationship:

- Hypothesis 1 (H1): Serious leisure involvement has a direct positive effect on leisure motivation.
- Hypothesis 2 (H2): Leisure motivation has a direct positive effect on psychological wellbeing.
- Hypothesis 3 (H3): Serious leisure involvement has a direct positive effect on psychological wellbeing.
- Hypothesis 4 (H4): Leisure motivation mediates the effect of serious leisure involvement on psychological wellbeing.

Method

Research Design

This study is in descriptive research based on the relational screening model, which aims to investigate the mediating role of leisure time motivation in the relationship between serious leisure activities and psychological wellbeing among cyclists (Hayes, 2018; Creswell & Creswell, 2018).

Research Group

The sample of the study consisted of 286 individuals participating in cycling activities in Turkey. Participants were selected using a snowball sampling method based on their accessibility and willingness to participate in the research. (Creswell & Creswell, 2018; Goodman, 1961). This non-probability sampling method was preferred due to practical constraints in reaching a randomized sample of cyclists. All participants are active cyclists with varying levels of experience. The ages of the participants range from 18 to 65. (Mean_{age} 27.51±12.41). When the demographic characteristics of the individuals participating in the study are examined, the gender distribution is 27.3% female (n=78) and 72.7% male (n=208).

Regarding marital status, 78.3% of the participants are single (n=224) and 21.7% are married (n=62). In terms of income level, 17.1% reported bad (n=49), 53.5% normal (n=153), and 29.4% good (n=84). In terms of education level, 29.4% are primary school graduates (n=84), 30.4% are high school graduates (n=87), 30.1% are bachelor's degree holders (n=86), and 10.1% are postgraduate degree holders (n=29). In terms of cycling experience duration, 14.7% cycle for 1-2 years (n=42), 19.2% for 3-4 years (n=55), 18.9% for 5-6 years (n=54), and 47.2% for 7 years and over (n=135). Information regarding the demographic variables is presented in Table 1.

Table 1. Participants' Demographic Characteristics

| Demographic Variables | | N | % |
|-----------------------------|-------------------|------------|------------|
| Gender | Female | 78 | 27.3 |
| | Male | 208 | 72.7 |
| Marital Status | Single | 224 | 78.3 |
| | Married | 62 | 21.7 |
| Income Level | Bad | 49 | 17.1 |
| | Normal | 153 | 53.5 |
| | Good | 84 | 29.4 |
| Educational Level | Primary School | 84 | 29.4 |
| | High School | 87 | 30.4 |
| | Bachelor's Degree | 86 | 30.1 |
| | Graduate Degree | 29 | 10.1 |
| Cycling Experience Duration | 1-2 year(s) | 42 | 14.7 |
| | 3-4 years | 55 | 19.2 |
| | 5-6 years | 54 | 18.9 |
| | 7 years or more | 135 | 47.2 |
| <i>Total</i> | | <i>286</i> | <i>100</i> |

Procedures

The data were collected using standardized measurement instruments that were adapted into Turkish and whose validity and reliability were ensured.

Leisure Motivation Scale (LMS): Developed by Pelletier et al. (1995) and adapted into Turkish by Güngörmüş (2012), the scale consists of 28 items and seven subscales (to know, to accomplish, to experience stimulation, identification, introjection, external regulation, and amotivation). The scale was prepared on a 7-point Likert type. Cronbach’s Alpha coefficient in this study was found to be 0.78.

Serious Leisure Inventory and Measure – Short Form (SLIM-SF): Developed by Gould et al. (2008) and adapted into Turkish by Işık, Demirel, and Kalkavan (2020), the scale consists of 18 items. The scale includes three subscales (seriousness, personal benefit, and social benefit) and was prepared on a 5-point Likert type. Cronbach’s Alpha coefficient in this study was calculated as 0.93.

Psychological Wellbeing Scale (PWBS): Developed by Diener et al. (2009) and adapted into Turkish by Telef (2013), the scale consists of eight items with a single subscale. The scale was prepared on a 7-point Likert type, and Cronbach’s Alpha coefficient in this study was found to be 0.88.

Data Analysis

The IBM SPSS 26.0 software package was used for data analysis. Firstly, the distribution properties of the variables included in the research were examined, and the skewness and kurtosis values were found to be within the ±2 range. This finding indicates that the assumption of normality is met (George & Mallery, 2016). Cronbach’s alpha coefficients were calculated to determine the reliability levels of the scales. Pearson product-moment correlation coefficient analysis was performed to test the correlations between the variables.

Table 2. Psychometric Properties and Descriptive Statistics of the Scales

| Variables | Item | Mean | SD | Skewness | Kurtosis | α | CR | AVE |
|-------------------------|------|------|------|----------|----------|------|------|------|
| Serious leisure | 18 | 4.11 | 0.53 | -0.12 | -0.93 | 0.93 | 0.94 | 0.50 |
| Leisure motivation | 28 | 5.28 | 0.57 | -0.37 | -0.81 | 0.78 | 0.90 | 0.53 |
| Psychological wellbeing | 8 | 5.74 | 0.89 | -0.86 | 0.63 | 0.88 | 0.90 | 0.50 |

α = Cronbach Alpha; CR = Composite Reliability; AVE = Average Variance Extracted Recommended threshold values: α > 0.70, CR > 0.70, AVE > 0.50

According to the findings in Table 2, the reliability coefficients (α = 0.78-0.93), composite reliability (CR = 0.90-0.94), and average variance extracted (AVE = 0.50-0.53) values for all scales meet the recommended threshold values. Furthermore, the skewness (-0.86 to -0.12) and kurtosis (-0.93 to 0.63) values indicate that the data conform to a normal distribution.

To assess the mediation effect, the PROCESS macro v4.1 developed by Hayes (2018) was used. In the established model, serious leisure was defined as the independent variable, psychological wellbeing as the dependent variable, and leisure time motivation as the mediating variable. The significance of the indirect effects was tested using the bootstrap method with 5000 re-samplings at a 95% confidence interval.

Data Collection Process

The research data were collected in March 2025 using an online survey method from various cycling communities in Turkey. After obtaining the necessary permissions, participants were reached via Google Forms. Prior to participation, all participants were informed about the study’s purpose, duration, the principle of voluntary participation, and their right to withdraw at any time without consequence. Only individuals who agreed to voluntary participation were included in the study.

Ethical Statement

The ethical appropriateness of the study was approved by the Social and Human Sciences Ethics Committee of Alanya Alaaddin Keykubat University Rectorate with decision number 2025/19 in its meeting dated 12.03.2025. This study was conducted in line with the ethical standards and principles set forth by the Declaration of Helsinki, ensuring the protection of participants’ rights, autonomy, and welfare throughout the research process.

Findings

This section presents the findings regarding the correlations among the levels of serious leisure, leisure motivation, and psychological wellbeing of individuals participating in cycling activities.

Table 3. Correlations between variables

| Variables | 1 | 2 | 3 |
|----------------------------|---------|---------|---|
| 1. Serious leisure | - | | |
| 2. Leisure motivation | 0.478** | - | |
| 3. Psychological wellbeing | 0.426** | 0.508** | - |

**p<0.01

According to the findings in Table 3, the correlations between the variables were found to be positive and moderately significant ($p < 0.001$). When the participants' mean scores were examined, the serious leisure scores were determined to be 4.11, the leisure motivation scores were 5.28, and the psychological wellbeing scores were 5.74.

Table 4. Analysis of the Mediating Role of Leisure Motivation in the Relationship between Serious Leisure and Psychological Wellbeing

| Outcome Variables | Predictor Variables | β | SH |
|-------------------------|---|---------|-------|
| Leisure motivation | (Fixed) | 3.152 | 0.234 |
| | Serious leisure | 0.518 | 0.056 |
| | $R^2 = 0.229$ $F(1, 284) = 84.152, p < 0.01$ | | |
| Psychological wellbeing | (Fixed) | 0.875 | 0.442 |
| | Serious leisure | 0.398 | 0.095 |
| | Leisure motivation | 0.612 | 0.088 |
| | $R^2 = 0.302$ $F(2, 283) = 61.089, p < 0.01$ | | |

In line with the findings in Table 4, it was first determined that serious leisure is a significant predictor of leisure motivation ($\beta = 0.518, t(284) = 9.173, p < 0.01$). Within this framework, serious leisure explains 22.9% of the total variance in leisure motivation ($F(1,284) = 84.152, p < 0.01$). Secondly, both serious leisure ($\beta = 0.398, t(283) = 4.194, p < 0.01$) and leisure motivation ($\beta = 0.612, t(283) = 6.977, p < 0.01$) were found to significantly predict psychological wellbeing. These two variables explain 30.2% of the variance in psychological wellbeing ($F(2,283) = 61.089, p < 0.01$).

Table 5. Indirect Effect on Psychological Wellbeing through Leisure Motivation

| Correlation between variables | Coefficients | 95% GA | |
|--|--------------|-------------|-------------|
| | | Lower Limit | Upper Limit |
| H1= Serious leisure → Leisure motivation | 0.518** | 0.406 | 0.629 |
| H2= Serious leisure → Psychological Wellbeing | 0.398** | 0.211 | 0.585 |
| H3= Leisure motivation → Psychological Wellbeing | 0.612** | 0.439 | 0.785 |
| H4= Serious leisure → Leisure motivation → Psychological Wellbeing | 0.317** | 0.207 | 0.445 |
| Total effect | 0.715** | 0.537 | 0.892 |

According to Table 5, the PROCESS macro based on a 5000-sample bootstrap analysis was used to examine the indirect effect within the scope of the study. The confidence intervals (BootLLCI and BootULCI) calculated for serious leisure, leisure motivation, and psychological wellbeing do not include zero (Hayes & Preacher, 2014). When leisure motivation was controlled as a mediating variable, a significant change was observed in the predictive power of serious leisure on psychological wellbeing ($F(2,283) = 61.089, p < 0.01$), and the explained variance increased to 30.2% ($\beta = 0.317, t(283) = 6.977, p < 0.01$). These findings indicate that leisure time motivation plays a mediating role in the correlation between serious leisure and psychological wellbeing. When the direct effect of serious leisure on psychological wellbeing ($\beta = 0.398$) and the indirect effect through leisure motivation ($\beta = 0.317$) are evaluated together, the total effect value ($\beta = 0.715$) was determined. With these findings, the hypotheses in the study are confirmed.

Discussion

The main purpose of this study was to determine the mediating role of leisure motivation in the relationship between serious leisure involvement and psychological wellbeing for individuals participating in cycling activities. When evaluating the research findings, positive and significant correlations were found among serious leisure, leisure motivation, and psychological wellbeing.

The Relationship between Serious Leisure and Leisure Motivation

The research determined that serious leisure has a positive and significant effect on leisure motivation, supporting the first hypothesis (H1). This finding suggests that as individuals engage more deeply in cycling as a serious leisure activity; developing skills, investing time, and forming a sense of identity around the activity; their motivation to continue participating becomes stronger. Serious leisure provides structured opportunities for

mastery, personal challenge, and social connection, all of which naturally enhance individuals' internal drive to remain committed to the activity.

Tian et al. (2020), working with Chinese marathon runners, found a strong positive relationship between serious leisure involvement and leisure satisfaction ($\beta = 0.815$; $p < 0.001$). Their findings indicate that deeper engagement in a purposeful leisure activity increases the rewarding nature of participation, which in turn strengthens motivation. This mechanism aligns with the present study's results: when participants derive skill-based accomplishment and meaning from cycling, their motivation grows accordingly.

Newman et al. (2014) provide further theoretical grounding through their comprehensive review of sports event participants. They highlight that serious leisure involvement enhances subjective wellbeing indirectly through the DRAMMA pathways; detachment-recovery, autonomy, mastery, meaning, and affiliation. Each of these mechanisms also reinforces motivational processes. For instance, the sense of mastery and autonomy gained in serious leisure activities supports greater enthusiasm, persistence, and intrinsic motivation.

Beggs and Elkins (2010) add to this understanding by showing that individuals with higher motivation experience greater satisfaction in their activities. Their results imply a reinforcing cycle: serious leisure increases motivation, and increased motivation enhances satisfaction, creating momentum for continued participation and personal growth.

In this context, the positive effect identified in our study reflects more than a statistical association; consequently, it indicates that serious leisure engagement in cycling cultivates the psychological conditions that fuel ongoing motivation, making the activity both meaningful and sustainable. This relationship provides an important foundation for understanding how cycling participants develop long-term commitment and derive benefits through motivated leisure involvement.

The Effect of Leisure Motivation on Psychological Wellbeing

It was concluded that leisure motivation has a positive and significant effect on psychological wellbeing, supporting the second hypothesis (H2). This result suggests that individuals who are more internally driven to engage in leisure activities tend to experience greater emotional, cognitive, and social benefits. Leisure motivation can enhance the sense of autonomy, purpose, and personal growth that individuals derive from activities such as cycling, which in turn fosters higher levels of psychological wellbeing.

Iso-Ahola and Baumeister (2023) highlight that leisure experiences contribute meaningfully to life purpose by offering opportunities for self-expression and freely chosen engagement. Their work indicates that the manner in which individuals use their leisure time, and the social connections formed through these activities, shows strong associations with

happiness, a point echoed in earlier research (Baumeister & Leary, 1995). These findings complement the present study by underscoring the psychological value of motivated leisure participation.

Yu et al. (2024) provide additional support through their study of university students, showing that motivation-driven leisure activities enhance self-confidence and psychological resilience via leisure satisfaction and mental toughness. This aligns with our finding that motivated engagement in cycling not only encourages consistent participation but also promotes wellbeing by reinforcing a sense of competence and confidence. Similarly, Pressman et al. (2009) demonstrated that enjoyable and purposeful leisure activities benefit both psychological and physiological functioning, emphasizing that the combination of pleasure and motivation can significantly enhance overall health and wellbeing.

Together, these studies help explain why higher leisure motivation in cyclists corresponds to stronger psychological wellbeing: motivated participation enriches enjoyment, deepens social and personal rewards, and nurtures mental health.

The Effect of Serious Leisure on Psychological Wellbeing

Serious leisure was found to have a positive and significant effect on psychological wellbeing, supporting the third hypothesis (H3). This result reflects the idea that long-term, skill-based, and identity-shaping activities such as cycling provide a structured avenue for self-development and fulfillment. Serious leisure offers a sense of achievement, competence, and community that enhances psychological functioning.

Tokarska and Rogowska (2025), in their study of cyclists and runners, found that motivations such as maintaining physical health, improving mood, and refreshing the mind play a substantial role in supporting leisure participation among young adults. These motivations are directly tied to emotional regulation and wellbeing, echoing the positive effects we observed in our sample of cyclists.

Evidence from Wu et al. (2020) also clarifies how serious leisure shapes wellbeing over time. Their longitudinal study with older adults demonstrated that involvement in structured leisure activities promotes successful aging through improvements in subjective wellbeing. While their population differs from the present sample, the underlying mechanism, serious leisure fostering psychological gains through meaningful engagement, is consistent.

Furthermore, Logan et al. (2023) report substantial psychological and physical benefits of cycling, including enhanced mental health and reduced risk of chronic disease. These broad impacts help contextualize our findings; that is, cycling, as a form of serious leisure, supports psychological wellbeing by combining physical vitality, personal challenge, and sustained engagement in a valued activity.

The Mediating Role of Leisure Motivation

The analysis showed that leisure motivation mediates the relationship between serious leisure and psychological wellbeing, supporting the fourth hypothesis (H4). This indicates that serious leisure involvement enhances psychological wellbeing not only directly but also indirectly by strengthening participants' motivation to engage in the activity. In other words, the more individuals commit to cycling as a serious leisure pursuit, the more motivated they become to participate, and this heightened motivation contributes to improved wellbeing.

Tian et al. (2020) demonstrated a similar mediating pathway among marathon runners, where leisure satisfaction fully mediated the relationship between serious leisure and subjective wellbeing. Their results show that the psychological benefits of serious leisure are realized through motivational and satisfaction-based processes. Matsumoto et al. (2018) further support this perspective by showing that leisure participation influences happiness through emotional and cognitive experiences facilitated by leisure involvement. Shin and You (2013), in their study of Korean adolescents, emphasize that the type and quality of leisure participation shape satisfaction and subsequent psychological outcomes. Their findings reinforce the idea that motivational factors amplify the benefits of serious leisure activities.

In our study, leisure motivation strengthens the positive effect of serious leisure involvement by reinforcing participants' sense of purpose, enjoyment, and long-term engagement in cycling. This interpretation aligns with evidence from Eather et al. (2023), who showed that sport participation contributes to sustained mental health and social benefits in adults. Motivated, consistent involvement appears to be a key pathway through which these benefits are realized.

Conclusion and Recommendations

The current research revealed that the effect of serious leisure involvement on psychological wellbeing is strengthened through leisure motivation for individuals participating in cycling activities. According to the research findings, leisure motivation leads individuals to feel greater satisfaction from their leisure activities, and this satisfaction has a positive effect on their psychological wellbeing. Furthermore, it was determined that meaningful leisure activities, such as cycling, provide significant contributions to individuals finding meaning in their lives.

Theoretical Contributions

The theoretical contributions of the current research can be discussed in several aspects. Firstly, as emphasized by Iso-Ahola & Baumeister (2023), leisure activities were found to be an important yet frequently underestimated aspect in terms of the meaning of life. This study integrates the serious leisure theory (Stebbins, 2007) with the self-determination theory (Deci & Ryan, 1985), offering a model that explains the effects of

motivational processes on psychological outcomes in cycling activities.

Secondly, the identification of leisure motivation's role as a mediating variable supports the DRAMMA model proposed by Newman et al. (2014) and fills an existing gap in the literature, thus establishing a theoretical foundation for future research. Findings from the comprehensive study by Martín-Rodríguez et al. (2024), which examined the multifaceted world between sport and psychology, suggesting that serious leisure exhibits indirect effects on subjective wellbeing through behavioral characteristics, support the theoretical model of this research.

Practical Implications

When evaluated in terms of the practical implications of the research findings, the strong effects of leisure motivation and satisfaction on psychological wellbeing are emphasized. In this context, it is understood that leisure activities are not only critically important for individuals' psychological wellbeing but also for making their lives more meaningful.

In light of the findings indicating a high demand for participation in cycling activities, it is stated that infrastructure for cyclists is highly necessary. Although local governments make great efforts to build green lanes, it is emphasized that most of these are outside city centers and access is not easy. Therefore, it is recommended that policymakers improve cycling infrastructure and organize public awareness programs.

Organizations and communities can promote cycling and similar meaningful leisure activities to enhance the quality of life for individuals. Given the potential for increased global cycling participation, which can provide widespread benefits for health, wellbeing, the environment, and the economy, developing policies that support cycling at a societal level is of great importance.

Limitations

The current research has certain limitations that should be acknowledged. Firstly, the use of a convenience sampling method may limit the generalizability of the findings. Secondly, the fact that the majority of participants have relatively short cycling experience might affect the extent to which the findings reflect long-term psychological outcomes. Finally, the cross-sectional design of the study does not permit causal interpretations.

Recommendations for Future Research

For future research, a deeper investigation into the long-term effects of different leisure activities and cycling types on the meaning of life can be suggested. The research by Xiao et al. (2025), which examined the changes in women's participation in leisure activities, health status, and subjective wellbeing from a life-cycle perspective, systematically analyzed the moderator effects of demographic characteristics. In light of these findings,

it is recommended that specialized research be conducted for different types and levels of cycling.

Furthermore, studies investigating the effects of policies designed to increase individuals' leisure satisfaction on psychological wellbeing can be suggested. The six-year prospective study by Weziak-Bialowolska et al. (2023), which examined the long-term relationships of mentally stimulating leisure activities on health, wellbeing, and longevity, emphasizes the importance of leisure activities for long-term health outcomes. Scrivano et al. (2024), in their comprehensive review examining the links between active mobility and mental health, systematically evaluated the effects of walking and cycling as modes of transport on mental health outcomes. The current research demonstrated that active mobility significantly increases levels of physical activity and leads to better physical health.

Longitudinal research designs would be beneficial for better understanding the developmental nature of the relationships among serious leisure, motivation, and psychological wellbeing. Enabling individuals to spend their leisure in a more satisfying manner can strengthen the meaning of both personal and social life.

Authors' notes:

This study was presented as an oral presentation at the 6th International Congress on Recreation and Sport Management (10-13 April 2025, Antalya).

Financial Sources

The authors received no financial support for this research.

Conflict of Interest

The authors declare no conflict of interest.

Author Contributions

Research Idea: EDY, HAG, OC, SG; Research Design: EDY, HAG, OC, SG; Data Collection: EDY, HAG, OC, SG; Data Analysis: EDY, HAG, OC, SG; Writing: EDY, HAG, OC, SG; Critical Review: EDY, HAG, OC, SG.

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