Life Satisfaction and Subjective Well-Being on the Road to Happiness: An Application of Structural Equation Modeling

Mutluluğa Giden Yolda Yaşam Doyumu ve Öznel Zindelik: Bir Yapısal Eşitlik Modeli Uygulaması

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ABSTRACT

This study aims to examine the relationships between happiness, life satisfaction, and subjective vitality among student-athletes. Conducted using a correlational survey design, the research included a total of 400 students (149 female and 251 male; Mean age = 21.31 ± 2.32) enrolled in sports sciences programs across three different universities. The data collection tools utilized were the "Subjective Happiness Scale (SHS)," the "Subjective Vitality Scale (SVS)," and the "Life Satisfaction Scale (LSS)." The suitability of the data for analysis was assessed based on skewness and kurtosis values. Data analysis was performed using IBM AMOS V25 software (Chicago, USA), and the relationships between happiness, life satisfaction, and subjective vitality were tested through Structural Equation Modeling (SEM).

According to the results of the structural equation model, the path coefficients between vitality, life satisfaction, and happiness were found to be significant. In this context, life satisfaction explains 44% of subjective happiness, while subjective vitality accounts for 54% of. Based on this, it can be suggested that increasing individuals' levels of life satisfaction and subjective vitality may also enhance their levels of happiness.

Keywords: Student-athlete, subjective happiness and vitality, life satisfaction

ÖZ

Bu çalışma, sporcu öğrenciler arasında mutluluk, yaşam doyumu ve öznel zindelik arasındaki ilişkilerin ortaya konulması amacıyla gerçekleştirilmiştir. Araştırmada ilişkisel tarama yöntemi kullanılmış ve üç farklı üniversitede spor bilimleri alanında öğrenim gören toplam 400 öğrenci (149 kadın ve 251 erkek; Ortyaş = 21,31 ± 2,32) yer almıştır. Veri toplama aracı olarak "Öznel Mutluluk Ölçeği (ÖMÖ)", "Öznel Zindelik Ölçeği (ÖZÖ)" ve "Yaşam Doyumu Ölçeği (YDÖ)" kullanılmıştır. Verilerin analize uygunluğu çarpıklık ve basıklık değerleri üzerinden değerlendirilmiştir. Veriler, IBM AMOS V25 yazılımı (Chicago, ABD) kullanılarak analiz edilmiş ve mutluluk, yaşam doyumu ve zindelik arasındaki ilişkiler Yapısal Eşitlik Modeli (YEM) ile test edilmiştir. Yapısal eşitlik modeli sonuçlarına göre, zindelik ve yaşam doyumu ile mutluluk arasındaki yol katsayıları anlamlı bulunmuştur. Buna göre, yaşam doyumu, öznel mutluluğun %44'ünü, öznel zindelik ise öznel mutluluğun %54'ünü açıklamaktadır. Buradan hareketle, bireylerin yaşam doyumu ve öznel zindelik düzeylerinin artırılmasının, mutluluk düzeylerini de artırabileceği ifade edilebilir.

Anahtar Kelimeler: Öğrenci sporcu, öznel mutluluk ve zindelik, yaşam doyumu

Introduction

For thousands of years, experts from various fields such as theology, philosophy, psychology, and medicine have endeavored to uncover the primary factors that influence human behavior. Their findings consistently point to a single underlying concept: happiness (Diener, 1984). Furthermore, human beings have consistently sought happiness and striven to achieve it since the advent of history (Gilman et al., 2000). Accordingly, happiness is regarded as a foundational ideal of life (Anic & Toncic, 2013). Consequently, the concept of happiness has remained a topic of interest and has been subjected to analysis from a variety of disciplinary perspectives, including those of art, philosophy, and psychology. The scope, components, and other aspects of happiness, which have become the subject of considerable interest, have been examined in depth, and the conditions necessary to provide more happiness have been investigated (Cuğ, 2015). Happiness is a key area of interest within the field of positive psychology, with a growing body of evidence indicating its importance for mental health (Sheldon & Lyubomirsky, 2004). In this context, happiness is frequently explored in conjunction with related concepts such as subjective well-being, psychological well-being, life satisfaction, and positive emotions (Tuzgöl-Dost, 2006). These interconnected dimensions collectively contribute to a deeper understanding of individuals' overall mental and emotional health.

Despite its ancient history, the concept of happiness remains elusive and challenging to define (Marar, 2004; Bülbül & Giray, 2011). Happiness is broadly characterized by the experience of positive emotions and the minimization or absence of negative ones (Bajaj et al., 2018). Conversely, the literature presents a multitude of perspectives on the definition of happiness. For example, Democritus, who is regarded as the "happiness philosopher," defined happiness as the tranquility of the soul (Özgen, 1997). Diener (1984) describes happiness as encompassing both the cognitive and emotional dimensions of human life. This perspective emphasizes the frequent experience of positive emotions like confidence, pride, joy, and excitement, alongside the infrequent occurrence of negative emotions such as fear, anxiety, anger, and hatred. Additionally, attaining significant satisfaction in various life domains, including family, work, and career, is viewed as a key indicator of happiness.

An individual's happiness is directly correlated with the fulfillment of psychological needs that influence their outlook and perception of their life. The extent to which these needs are met determines whether the individual experiences happiness or unhappiness (İlhan & Özbay, 2010). In this context, investigations have been conducted into the nature of happiness, its determinants, and the possibility of achieving permanent happiness (Lyubomirsky et al., 2005). Research in the literature indicates that subjective happiness is positively associated with factors such as positive self-assessment (Cheng & Furnham, 2003), psychological well-being (Liem et al., 2010), self-concept (Diener, 2000), and life satisfaction (Garcia & Siddiqui, 2009). On the other hand, subjective happiness shows a negative relationship with depressive symptoms (Chaplin, 2006).

Life satisfaction, which is believed to be a significant determinant of happiness, is a fundamental aspect that individuals must consider in order to achieve a sense of fulfillment and purpose in their lives. Life satisfaction, as a cognitive component of subjective well-being, represents an individual's overall evaluation of their life based on their own criteria and standards (Diener, 1984). It is described as the outcome of comparing personal expectations with actual life conditions (Haybron, 2004). Additionally, evaluating one's life positively based on personal standards is considered a key component of happiness (Diener et al., 1985). Essentially, life satisfaction serves as a measure of the general improvement in life quality (Veenhoven, 1996).

One of the elements contributing to this process is the concept of "wellness," which is considered to be related to happiness. According to self-determination theory, subjective vitality is a fundamental concept in positive psychology and serves as a key predictor of both subjective happiness and well-being (Akın, 2012). Subjective vitality represents a positive emotional state and manifests itself through subjective experiences such as being full of energy and a sense of vitality (Ryan & Frederick, 1997). According to another definition, wellness is defined as the effort of individuals to maintain a healthier and higher quality life by organizing their lives and adopting a holistic perspective on their whole life (W. Hoeger & S. Hoeger, 2012).

The term "wellness" can be defined as a process in which individuals make deliberate, conscious choices on a continuous basis to enhance the quality of their lives, rather than focusing on reaching a specific goal (Sulphey, 2014). Furthermore, there is a correlation between fitness and the mitigation of the effects of aging, the prevention of disease, and an enhanced sense

of self-worth (Pilzer, 2007). Subjective well-being is defined as a state of positive mental energy and refers to individuals who are lively, cheerful, stimulated, energetic, and dynamic. This state is derived from internal resources (Fini et al., 2010). Studies on subjective well-being reveal a negative relationship between this concept and factors such as depressive symptoms (Niemiec et al., 2006), internet addiction (Akın, 2012), anxiety, negative emotions, an external locus of control, and emotional instability (Ryan & Frederick, 1997). Furthermore, it has been linked to instability, physical pain (Ryan & Frederick, 1997), and psychological distress (Salama-Younes, 2011). Conversely, it has been associated with positive outcomes such as subjective happiness, social, emotional, psychological well-being, and life satisfaction (Akın, 2012).

Relationship between Happiness, Satisfaction with Life and Subjective Well-Being

The experience of positive emotions, such as hope, joy, and trust, on a frequent basis throughout one's life is indicative of a state of happiness. Conversely, the experience of negative emotions, such as sadness, hatred, despair, and anger, is indicative of a state of unhappiness. The term "happy" is used to describe individuals who are satisfied with their work, marriage, and health. Therefore, happy people differ from unhappy people in terms of their life experiences (Eryılmaz, 2011; Honça & Çetinkaya, 2017).

The extant literature indicates that a number of factors, including self-actualization, life satisfaction, positive body perception, positive affect, self-esteem, perceived physical competence, extroversion, and motivation, are positively correlated with subjective vitality (Balaguer et al., 2011; Ryan & Frederick, 1997). Subjective vitality plays a regulatory role in the mechanism of self-control, thus assisting individuals in identifying effective solutions to relational problems and in behaving in a manner that is not dependent on external controls (Ryan & Frederick, 1997). Furthermore, individuals with high levels of vitality demonstrate positive performance in various domains, including sense of worth, sensitivity, logical beliefs, identity, intellectual stimulation, self-care, eating habits, sports, stress management, job satisfaction, hobbies, forming friendships, and romantic relationships (Myers et al., 2000). Bostic, Rubio and Hood (2000) suggest that individuals with higher subjective vitality tend to be more energetic and attentive in their activities. Ryan and Frederick (1997) contend that individuals who maintain good physical fitness are more resilient to stress and experience better mental health, which in turn enhances their overall quality of life, leading to greater life satisfaction and subjective happiness.

In summary, a review of the general findings from studies on subjective happiness, life satisfaction, and subjective vitality highlights a link between life satisfaction and subjective vitality. This relationship could play a role in enhancing subjective happiness. The aim of this study is to examine the relationships among happiness, life satisfaction, and subjective vitality, with a particular focus on uncovering potential connections among university students. Given that university students represent the highest-risk group in terms of mental disorders in our country (Doğan, 2008). A number of studies have demonstrated that university students display a range of symptoms associated with psychological disorders (Koç & Polat, 2006). The influence of biological, psychological, and social changes can result in difficulties for students in academic, familial, and social contexts (Li et al., 2010). Such changes typically entail a challenging process and may negatively impact students' psychological well-being, leading to feelings of unhappiness (Gündüz, 2013). Moreover, a multitude of personal, social, academic, and career-related challenges encountered during the university years have the potential to negatively impact individuals' perceptions of happiness and life satisfaction (Özbay et al., 2012).

Every society in the world needs a young population with high levels of subjective well-being, whose basic needs are met and who experience happiness in their lives (Gündoğdu & Yavuzer, 2011). The university, where the youth of tomorrow will be shaped, constitutes an environment that induces stress and anxiety (Çağır & Gürgân, 2010). Therefore, during their university life, where they prepare for adulthood and their careers, it is important for university students to develop into individuals who can cope with their problems, engage in active participation, communicate effectively, be aware of factors that protect both their internal and external psychological health, maintain their well-being, establish fulfilling relationships in their careers and family lives, nurture hopes for the future, and utilize these for achieving their goals. This is significant not only for society but also for the individuals themselves (Gürgân, 2014).

As seen from the theoretical foundations and scientific research findings in the literature, happiness, vitality, and life satisfaction emerge as important areas to focus on in terms of individuals' ability to overcome the negative factors they encounter in life and adopt a more positive outlook. In the fast-paced flow of time, maintaining happiness despite the

challenges faced concerns all of humanity, and it is particularly relevant to student-athletes. Building on this significance, this research aims to explore the relationships between subjective happiness, life satisfaction, and vitality among student-athletes.

Methods

Research Model

This research utilized the relational survey method to examine the interrelationships between subjective happiness, life satisfaction, and subjective wellness among student-athletes. The purpose of the research models is to explore potential cause-and-effect relationships and the connections between these variables (Fraenkel et al., 2012). Structural equation modeling (SEM) will be used to test the relationships among happiness, life satisfaction, and wellness. SEM integrates factor analysis and regression analysis, allowing for a comparison between the predicted covariance matrix from the theoretical model and the observed data to assess its fit (Hox & Bechger, 1995). The study's model and hypotheses are outlined below.
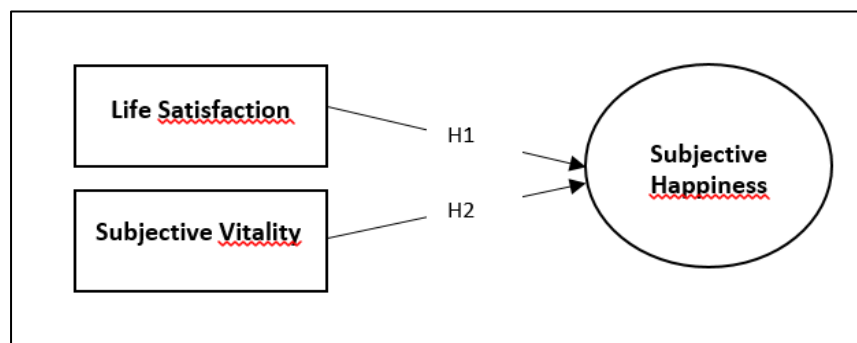

Figure 1. *Research model*

H1. Life satisfaction positively affects happiness.
H2. Subjective well-being positively affects happiness

Research Group

The study group consisted of a total of 400 university students (Mage = 21.31 ± 2.32), including 149 females and 251 males, who were sampled using the convenience sampling method. The students were enrolled in three different sports sciences faculties during the 2023-2024 academic year. The demographic characteristics of the research group are presented in the table below (Table 1).

Table 1.
Distribution of Demographic Information on the Research Group

Variables	Groups	N	%
Gender	Female	149	37.3
	Male	251	62.7
Class	1st grade	116	29.0
	2nd grade	125	31.3
	3rd grade	71	17.8
	4th grade	88	22.0

Data Collection

In the study, the data collection technique used was the survey method. The survey method involves asking the same set of questions to a large number of individuals either via phone, email, or in person (Büyüköztürk, et al., 2012). Before the implementation of the data collection tools, the necessary permissions were obtained, and then the tools were administered to the sample group both face-to-face and via Google Forms. Before each scale was filled out by the athlete, participation was based on voluntary consent, and the rules that needed to be followed were clearly outlined. The completed survey forms were reviewed to ensure the validity of the results. Forms with incomplete or incorrect responses, or those with repeated coding errors, were excluded from the study. The valid and accepted forms were coded and transferred to a computer environment for analysis, where the necessary statistical analyses were conducted, and the process was monitored.

Data Collection Tools

The Life Satisfaction Scale (LSS)

The Life Satisfaction Scale (LSS) is a tool designed to assess an individual's overall satisfaction with life. Initially developed by Diener et al. (1985) and later adapted to Turkish by Dağlı & Baysal (2016), it measures how individuals evaluate their life in terms of general satisfaction. The scale consists of five items, rated on a five-point Likert scale. The Cronbach's Alpha internal consistency coefficient of the scale was determined to be 0.88, and the test-retest reliability was found to be 0.97. There are no reverse-scored items, and the total score ranges from 5 to 35, with higher scores indicating greater life satisfaction.

The Subjective Vitality Scale (SVS)

The happiness levels of the student-athletes were assessed using the Subjective Well-Being Scale (SVS), originally developed by Ryan and Frederick (1997) and later adapted to Turkish by Akın et al. (2012). This scale uses a seven-point Likert format (1 = not valid at all, 7 = completely valid) and consists of seven items, with the second item being reverse scored. Scores range from a minimum of 7 to a maximum of 49, with higher scores indicating greater subjective well-being. The scale demonstrated a Cronbach's α reliability coefficient of .84, and the corrected item-total correlations ranged from .48 to .74.

The Subjective Happiness Scale (SHS)

The Subjective Happiness Scale (SHS) is a psychometric instrument designed to assess an individual's subjective well-being. Developed by Lyubomirsky and Lepper (1999) and later adapted into Turkish by Akın and Satıcı (2011), the scale uses a seven-point Likert format (1 = not happy at all, 7 = very happy) and includes four items. The fourth item is reverse scored due to its negative wording. The scale produces scores ranging from 4 to 28, with higher scores indicating higher subjective happiness. The scale demonstrated a Cronbach's α reliability coefficient of .86, with item-test correlations ranging from .55 to .76.

Data Analysis

After data collection, the data were imported into SPSS-23 and AMOS-23 for analysis. Descriptive statistics were used to examine participants' demographic characteristics. Skewness and kurtosis values were checked, confirming that the data met the assumptions for parametric testing as per Tabachnick and Fidell (2013) (Table 2). The internal consistency of the scales was evaluated using Cronbach's alpha. Structural equation modeling (SEM) was then used to test the causal relationships between the variables, which involved evaluating the measurement model, performing path analysis, and assessing the model's fit.

Ethics of the Research

Ethics committee approval was received for this study from the ethics committee of Gümüşhane University Scientific Research and Publication Ethics Board (Date: March 27, 2027, Decision Number: 78, Protocol No: E-95674917-108.99-245422. Verbal consent was obtained from all the participants.

Results

Table 2.
Distribution of Scale Scores (LSS-SVS-SHS)

Scales	Mean	Sd	Skewness	Kurtosis	C.Alpha
Life Satisfaction Scale (LSS)	2.74	0.81	-0.14	-0.43	0.84
Subjective Vitality Scale (SVS)	3.95	1.33	0.10	-0.27	0.91
Subjective Happiness Scale (SHS)	3.81	0.47	0.41	-0.34	0.85

The mean scores for the participants on the scales were as follows: LSS (2.74), SVS (3.95), and SHS (3.81), respectively. The skewness and kurtosis values ranged from -2 to +2, indicating that the data were normally distributed (George & Mallery, 2016). Additionally, the scales exhibited high to very high reliability.

Table 3.
Pearson Correlation Analysis Results for Scale Scores

	LSS	SVS	SHS
Life Satisfaction Scale (LSS)	1		
Subjective Vitality Scale (SVS)	0.49**	1	
Subjective Happiness Scale (SHS)	0.49**	0.61**	1

**$p<.01$

The Pearson correlation analysis revealed moderately positive and statistically significant relationships between the LSS, SVS, and SHS scores ($p< .01$).

Table 4.
Goodness of Fit Values for the Structural Equation Model

Model Fit Indices	Values	Reference Values
$\chi 2$/df	3.51	Excellent ≤ 3 ≤ **Good** ≤ 5
CFI	0.93	Excellent ≥ 0.95 ≥ **Good** ≥ 0.90
GFI	0.91	Excellent ≥ 0.95 ≥ **Good** ≥ 0.90
NFI	0.91	Excellent ≥ 0.95 ≥ **Good** ≥ 0.90
TLI	0.92	Excellent ≥ 0.95 ≥ **Good** ≥ 0.90
RMSEA	0.07	Excellent ≤ 0.05 ≤ **Good** ≤ 0.08

Notes: Chi-square ($\chi 2$), Degrees of freedom (df), Comparative fit index (CFI), Goodness fit index (GFI), Normalized fit index (NFI), Unscaled fit index (TLI), Root mean square error of approximation (RMSEA)

Upon evaluating the goodness of fit values for SEM, the initial results were as follows: χ^2/df = 3.82, CFI = 0.92, GFI = 0.89, NFI = 0.90, TLI = 0.91, and RMSEA = 0.084. Since the GFI and RMSEA values were near the threshold for acceptability, adjustments were made to improve these values and bring them within the desired range. After modifications, the re-evaluated model showed CFI = 0.93, GFI = 0.91, NFI = 0.91, TLI = 0.92, and RMSEA = 0.07, all of which fell within the acceptable fit range (Schermelleh-Engel et al., 2003; Sun, 2005; Iacobucci, 2010).

In the research, a two-stage approach was employed for the testing of structural equation models. Initially, the measurement models of the models were evaluated (Table 5, Figure 2), and subsequently, the structural models were assessed (Figure 3).

Table 5.
Testing the measurement model

Measure	Path	Faktor	β 0	β 1	S.E.	C.R.	p
LSS1	<---	LSS	0.76	1.30	0.13	10.30	**<.01**
LSS2	<---	LSS	0.77	1.14	0.11	10.33	**<.01**
LSS3	<---	LSS	0.79	1.35	0.13	10.51	**<.01**
LSS4	<---	LSS	0.75	1.11	0.11	10.26	**<.01**
LSS5	<---	LSS	0.54	1			
SVS1	<---	SVS	0.76	0.79	0.04	19.10	**<.01**
SVS2	<---	SVS	0.84	0.98	0.04	22.84	**<.01**
SVS3	<---	SVS	0.72	0.87	0.05	17.31	**<.01**
SVS4	<---	SVS	0.79	0.89	0.04	20.20	**<.01**
SVS5	<---	SVS	0.73	0.82	0.05	17.77	**<.01**
SVS6	<---	SVS	0.60	0.67	0.05	13.29	**<.01**
SVS7	<---	SVS	0.89	1			
SHS1	<---	SHS	0.85	1.05	0.06	18.65	**<.01**
SHS2	<---	SHS	0.84	1.07	0.06	18.42	**<.01**
SHS3	<---	SHS	0.59	0.77	0.06	12.11	**<.01**
SHS4	<---	SHS	0.81	1			
SEM							
SHS	<---	SVS	0.50	0.54	0.06	8.29	**<.01**
SHS	<---	LSS	0.29	0.44	0.09	5.02	**<.01**

LSS: Life satisfaction scale, SVS: Subjective vitality scale, SHS: Subjective happiness scale, β0: Standard coefficients, β1: Non standard coefficients.

As evidenced in Table 5, the path coefficients associated with all items pertaining to life satisfaction, subjective vitality, and subjective happiness were found to be statistically significant.
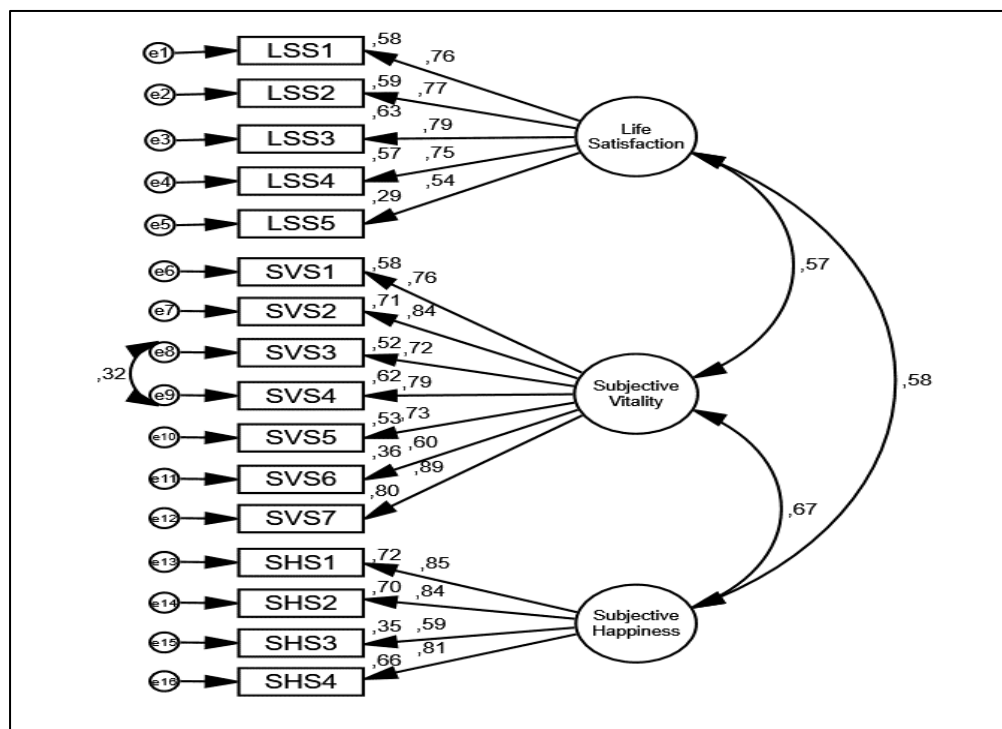

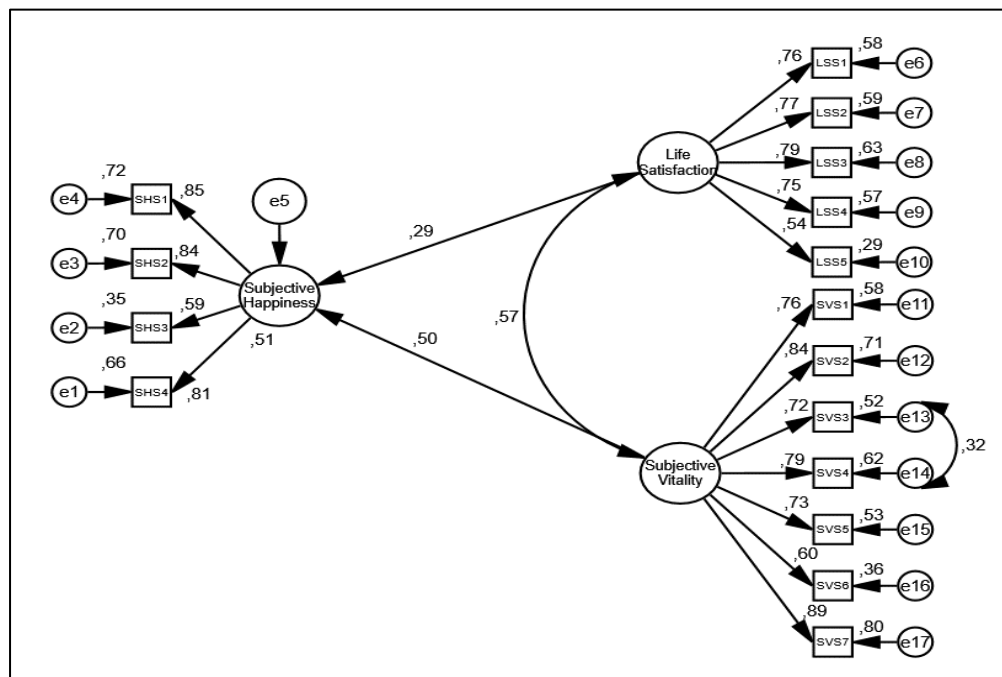**Figure 2**. *Standardized path coefficients*

Figure 3. *Path Analysis of the Relationship between SHS-LSS-SVS*

The factor loadings and results from the model assessing the relationships between subjective happiness, subjective vitality, and life satisfaction are displayed in Figure 2. The SEM results show a statistically significant path coefficient between vitality and happiness ($\beta1 = 0.54$, $p = .01$), confirming hypothesis H1. Additionally, the path coefficient between life satisfaction and happiness was also significant ($\beta1 = 0.44$, $p = .01$), supporting the confirmation of hypothesis H2. These findings suggest that both life satisfaction and subjective vitality have a positive impact on, and are significant predictors of, subjective happiness.

Discussion

The aim of this study was to assess a theoretically grounded model that could enhance the quality of life for young individuals, who represent the future generation. The research focused on exploring the relationships between life satisfaction, subjective fitness, and subjective happiness among student-athletes enrolled in sports science programs. The findings indicated that both life satisfaction and subjective fitness directly influence subjective happiness and serve as important predictors of happiness.

This study found that life satisfaction is a significant predictor of subjective happiness among students in the Faculty of Sport Sciences, thus confirming the initial hypothesis of the study. Similarly, research by Nedim-Bal and Gülcan (2014) on university students from different academic disciplines identified a strong positive relationship between happiness and life satisfaction. Likewise, Özavci et al., (2022) observed a significant positive association between these variables in their study on private sector employees. In their study with university students living in Pakistan, Malik and Sajjad (2022) found significant positive relationships between life satisfaction and happiness. A substantial body of domestic and international literature has documented a positive correlation between happiness and life satisfaction (Chui & Wong, 2016; Demir & Murat, 2017; Gundelach & Kreiner, 2004; Garcia & Siddiqui, 2009). A synthesis of the findings from the present study with those from the existing literature suggests that life satisfaction plays a significant role in subjective happiness among students engaged in athletic pursuits.

Another outcome of the present study is that subjective fitness has a positive and significant impact on subjective happiness, thereby substantiating the second hypothesis. The study conducted by Uzunbacak & Akçakanat (2018) demonstrated that subjective fitness has a positive and significant effect on subjective happiness, and that subjective fitness positively and significantly predicts happiness. The study indicates that subjective fitness accounts for 27.1% of the variation in subjective happiness. Tunçkol's (2015) study demonstrates that fitness is a significant predictor of happiness, explaining

20% of the variance in happiness among participants. In another study (Yazıcı, 2015), it was demonstrated that there is a positive correlation between subjective happiness and subjective fitness. These findings demonstrate a significant correlation between fitness and happiness, indicating that as one variable increases, the other tends to do so in a corresponding manner. Individuals who experience a sense of physical and psychological vigor, pleasantness, and energy tend to exhibit higher levels of subjective happiness. Individuals with a high sense of subjective well-being are better able to cope with stressful situations and experience greater energy and vigor (Ryan & Frederick, 1997), which may lead to increased levels of subjective happiness (Akın & Akın, 2015). In other studies in the literature, the relationship between happiness and subjective fitness (Govindji & Lindley, 2007) and the positive and significant effect of subjective fitness on subjective happiness (Dolunay-Cuğ, 2022; Köse et al., 2019) have been demonstrated. As can be seen, the results of the current research support these findings and contribute to the existing literature on the subject.

Conclusion and Recommendations

The study concluded that subjective fitness and life satisfaction are significant predictors of subjective happiness, and that life satisfaction and subjective fitness play an important role in the subjective happiness of student athletes. These findings underscore the necessity of interventions aimed at enhancing subjective fitness and life satisfaction to promote individual and social well-being. Given the influence of subjective fitness and life satisfaction on subjective happiness, it is evident that these variables should be prioritized to enhance the quality of life of individuals. Research and practice initiatives in this domain will facilitate individuals' ability to lead happier and more fulfilling lives.

These findings contribute substantially to the existing literature on sports sciences, particularly for students engaged in the study of sports sciences. The subjective happiness, life satisfaction, and subjective vitality of young people, who are the future guarantors of the Turkish society, are of great importance for the continuity of healthy generations in terms of spiritual, social, emotional, intellectual, environmental, physical, and professional aspects. In this context, it is imperative to establish support mechanisms at both the individual and institutional levels to enhance the subjective happiness of students. Schools can facilitate the implementation of healthy life programs and psychological support services. Educational programs on life satisfaction and subjective vitality can be conducted for students in schools and universities. At the individual level, students can be directed to personal development seminars, which can prove beneficial for their overall well-being.

Future studies could benefit from exploring these relationships across different cultures and demographic groups to gain a more comprehensive understanding of the factors that influence subjective happiness, subjective vitality, and life satisfaction. This approach allows for a more nuanced understanding of the universality of these variables and their effects in different contexts. It is proposed that the aforementioned topics be associated with different independent variables. This research was conducted using quantitative data, and thus, the integration of qualitative data may provide a different perspective on the subject. Additionally, this research was conducted exclusively with sports science students, which could be considered a research limitation. It is recommended that such studies be generalized by applying them to university students enrolled in other departments or even to smaller study groups.

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