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Research Article

Predictors of Gaming Addiction Among University Students: Gender, Spiritual Well-Being, and Meaning in Life

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Abstract

Gaming addiction has emerged as a pressing public health concern, attracting significant attention from researchers. Investigating the factors associated with gaming addiction can contribute to a better understanding of this issue. Spiritual well-being and meaning in life may be considered relevant constructs in this context. Accordingly, this study aims to examine the relationship between gaming addiction, spiritual well-being, and meaning in life among university students. The study sample comprised 420 university students, including 234 women (55.7%) and 186 men (44.3%), aged between 17 and 44 years (M = 21.82). Data were collected using a demographic information form, the Gaming Disorder Scale, the Spiritual Well-Being Scale, and the Meaning in Life Scale. The findings revealed a negative correlation between gaming addiction, spiritual well-being, and meaning in life. Furthermore, spiritual well-being and the presence of meaning subdimension negatively predicted gaming addiction, while gender was also found to be a significant predictor. These results suggest that higher levels of spiritual well-being and meaning in life may serve as protective factors against gaming addiction.

Keywords:
Gaming addiction • Spiritual well-being • Meaning in life • Gender, Hierarchical regression

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Introduction

The internet, which is at the forefront of technological developments, has managed to attract people by influencing many areas of life. Today, many needs, from banking transactions to official institution-related procedures, from education to shopping, can be easily met through the internet. One of the areas directly influenced and shaped by technological advancements is the entertainment needs of human beings. The need for entertainment is one of the fundamental psychological needs (Glasser, 2003). Playing games is an activity that fulfills this need for entertainment. This activity is not only enjoyable and entertaining but also a way to break away from daily routines (Kuss & Griffiths, 2012). In the past, entertainment needs were met primarily through socialization and interactive games played individually or collectively. However, with the advent of the virtual world, this need is now being met in a different context. Games, with their interactive structure, allow individuals to exist in the digital world as they wish through avatars, fulfilling their entertainment needs and leading them to spend significant amounts of time in digital games. Additionally, digital games can serve as an escape, providing individuals with a way to cope with interpersonal problems and contributing to their social status through in-game achievements (Li & Wang, 2013). Due to these characteristics, individuals may spend excessive time playing games. Excessive gaming can pose a risk of addiction (Gentile et al., 2017).

The process of gaming addiction begins with an individual's mind being constantly occupied with gaming (Young, 2009). As a result of this mental preoccupation, individuals may experience difficulties focusing on work, school, or other daily responsibilities. Gaming addiction, which starts with constant mental engagement with games, has been defined by the American Psychiatric Association [APA] (2013) and the World Health Organization (WHO, 2019) with additional criteria. In the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) published by the APA (2013), gaming disorder is categorized under behavioral addictions, which are non-substance-related disorders, in Section 3. Online gaming disorder is explained by the APA (2013) through nine criteria: preoccupation with games for at least 12 months, feelings of restlessness, anxiety, and sadness when not playing games, spending increasing amounts of time gaming, unsuccessful attempts to stop or control gaming, losing interest in previously enjoyable hobbies and activities, continued excessive gaming, lying to family members and therapists about gaming time, playing games to escape from negative emotions (such as helplessness, guilt, and anxiety), and jeopardizing or losing job, educational, or career opportunities due to gaming. Similarly, the World Health Organization (WHO, 2019) defines gaming disorder through symptoms emerging in three areas. These include losing control over gaming (in terms of initiation, frequency, intensity, duration, termination, and the context in which the game is played) for at least 12 months, gaming becoming

more important than other life domains and daily activities, and continuing to play games despite significant impairments in personal, familial, social, educational, occupational, or other important areas.

Digital game addiction continues to attract the attention of both academic circles and clinicians working in practice as a significant public health concern. One of the factors contributing to the increasing attention to game addiction is that it does not remain an innocent habit but is associated with various other problems, as outlined below. A study conducted by Torres-Rodriguez et al. (2017) found that game addiction is closely related to problematic behaviors in mental health and socio-cultural aspects, such as online gambling addiction. When examining other concepts related to game addiction, it is observed that game addiction has negative correlations with life satisfaction and social support (Baysak et al., 2020), emotion regulation and school attachment (Liu et al., 2017), and positive correlations with psychological problems (Yeşilyurt, 2020), bullying cognitions (Kılıç, 2019), attention deficit hyperactivity disorder, obsessive-compulsive disorder, depression, and anxiety (Andreassen et al., 2016).

Reducing or eliminating game addiction, which is considered a risky behavior, can be achieved by examining and identifying the associated concepts. One of these concepts is spiritual well-being. Spiritual well-being, which is considered a way to cope with psychological problems and difficulties in life, including illnesses (McClain et al., 2003), can serve as a protective factor against computer game addiction (Braun et al., 2016). Studies indicate that as spiritual well-being increases, social media addiction (Wood et al., 2016) and other chemical addictions decrease (Dermatis & Galanter, 2016), suggesting that a similar effect may be observed in digital game addiction. This is because it is known that both chemical and technology addictions activate the brain's reward center (Öztürk & Karademir, 2024). A similar effect may also be expected for game addiction.

Spirituality, which is an essential motivating and adaptive force in an individual's life (Ekşi & Kardaş, 2017), originates from the Latin word "spiritus," meaning breath or life (Hill et al., 2000). Spirituality is defined as the search for meaning in life and the continuation of life in accordance with the meaning found (Rohde et al., 2017). Spirituality is generally considered in two dimensions. The vertical dimension encompasses an individual's relationship with a transcendent power (God) and their system of values. The horizontal dimension refers to an individual's lifestyle, self-relationship, and connections with others and the environment (Ross, 1995).

Spiritual well-being is a concept that examines an individual's relationship with oneself, the environment, and God, encompassing topics related to life and religion (Acar, 2014). It is expressed as humanity's quest to make sense of existence, search for purpose, question life in general, and seek to understand abstract entities that

are not easily comprehended or explained (Opatz, 1986). Spiritual well-being is also considered a state of wellness and well-being that arises from an individual's search for a harmonious, intrinsic, and meaningful life purpose and self-confidence to overcome difficulties and achieve the goals set in life (Lee & Salman, 2016).

When examining the variables associated with spiritual well-being in the literature, it is found to be positively related to resilience (Cotton et al., 1999), well-being and happiness (Gomez & Fisher, 2003), quality of life (Allahbakhshian et al., 2010), meaning in life (Ekşi et al., 2019), perceived health (Salman & Lee, 2019), and mental health (Jafari et al., 2010). Conversely, spiritual well-being has been found to be negatively related to depression (Ando et al., 2010; Mills et al., 2015), helplessness and hopelessness (Cotton et al., 1999), and internet addiction (Taş, 2022).

Another protective factor against digital game addiction can be the meaning of life. The meaning of life is considered the sense of coherence, significance, and control over one's life, along with a sense of belonging to life (Schnell, 2009). In contrast, game addiction emerges as a result of individuals losing control and turning to games due to an inability to manage negative emotions (APA, 2013). In this context, the concept of meaning in life, which is related to digital game addiction, is considered a natural outcome of balanced, mindful existence and unbiased attitudes (Dogra et al., 2011).

The search for meaning in life is a fundamental motivation for humans and is unique and personal because it can only be discovered by the individual themselves (Frankl, 2009). This unique concept encompasses the value and purpose of life, significant goals, and for some, spirituality (Jim et al., 2006). Ryff and Singer (1998) consider the meaning of life as a broader component of well-being.

The concept of meaning in life does not refer to the existence of an absolute meaning. There can be as many meanings as there are individuals; thus, all interpretations regarding the meaning of life can be considered valid (Adler, 2010). Regardless of circumstances, individuals can always find meaning in life, and this meaning includes not only positive experiences but also suffering, death, and deprivation (Frankl, 2009).

Studies on the meaning of life indicate that it is positively associated with optimism, life satisfaction, and happiness (Demir & Murat, 2017). Additionally, the search for meaning is positively related to the coping dimensions of avoidance and problem-focused coping, while spiritual experience and presence of meaning are positively related to avoidance, problem-focused coping, seeking social support, and spiritual orientation (Şimşir et al., 2020). A negative relationship has been found between meaning in life and social media addiction and fear of missing out in social environments, with meaning in life found to predict social media addiction (Koçak & Traş, 2021). Furthermore, presence of meaning is positively associated

with psychological resilience and negatively related to state anxiety, and presence of meaning predicts psychological resilience (Kul et al., 2020).

Playing digital games in a dysfunctional manner emerges as a serious risk factor for people of all ages and backgrounds. As game addiction increases, academic achievement decreases (Brunborg et al., 2014), and cognitive impairments directly related to academic performance increase (Zandi & Mirzaeidoostan, 2019). The harmful effects of game addiction are not limited to the academic domain. Individuals suffering from addiction may also jeopardize their future career opportunities (APA, 2013). Additionally, such individuals may experience a lack of life satisfaction (Baysak et al., 2020) and psychological problems (Yeşilyurt, 2020). These negative effects resulting from game addiction impact both students and other groups of game addicts, making it more challenging for individuals to achieve their academic and life-related goals. Spiritual well-being, defined as a state of wellness and well-being that facilitates overcoming life's challenges and achieving set goals (Lee & Salman, 2016), can mitigate the negative effects of game addiction and serve a protective function by enhancing individual well-being. Another factor that can provide individuals with a safe harbor against the negative effects of game addiction is their perception of life as meaningful and purposeful. The presence of life's value, purpose, and significant goals to achieve (Jim et al., 2006) can serve as a protective factor against game addiction. An increase in both spiritual well-being and meaning in life can reduce the negative effects of game addiction while contributing to an individual's overall well-being.

In this context, this study aims to answer the following research questions:

1. Does gender predict game addiction?
2. Does spiritual well-being predict game addiction?
3. Does meaning in life (presence of meaning and search for meaning) predict digital game addiction?

Method

Research Model

The relational survey model, one of the general survey models, was used in the study. The relational survey model is a survey model that examines whether two or more variables change together and, if there is a change, investigates the direction of this change (Durmuş et al., 2011; Karasar, 1998). The research data were tested using hierarchical regression analysis. In this model, predictor variables are analyzed in an order determined by the researcher. The predictive effect of each variable on the dependent variable is evaluated separately. The predictor variables included earlier in

the model serve as control variables for the predictor variables included later in the model (Büyüköztürk, 2014).

Research Group

A power analysis was conducted to determine the sample size. The a priori power analysis performed using G*Power 3.1.9.7 software indicated that a total sample size of 89 would be required for a medium effect size (f2 = 0.15; α = 0.05; power level = 0.95). Since the sample size in this study exceeded the required number, it was deemed sufficient. Individuals under the age of 18 and those with any clinical diagnosis were not included in the study. The sample of the study was selected using a convenience sampling method, which aims to prevent the loss of time, money, and labor (Büyüköztürk et al., 2018). The research group consisted of 420 university students. Of the participants, 234 (55.7%) were female, and 186 (44.3%) were male. The participants' ages ranged from 18 to 44 years, with a mean age of 21.83.

Data Collection Instruments

Personal Information Form: The personal information form was prepared by the researchers to determine participants' age, gender, and class level.

Gaming Disorder Scale: The scale was developed by Pontes and Griffiths (2015) and adapted into Turkish culture by Arıcak et al. (2018). The scale is a 5-point Likert-type scale and is unidimensional. The lowest possible score on the scale is 9, while the highest is 45. Higher scores indicate a higher level of gaming disorder. The scale does not contain any reverse items. Construct validity was tested using confirmatory factor analysis (CFA). The fit indices obtained from CFA demonstrated that the scale was valid ($x^2/df = 4.79$, TLI = 0.87, CFI = 0.90, RMSEA = 0.09). The Cronbach's alpha internal consistency coefficient was found to be .82. In the current study, the Cronbach's alpha internal consistency coefficient was calculated as .85.

Spiritual Well-Being Scale: The scale was developed by Ekşi and Kardaş (2017). It is a 5-point Likert-type scale consisting of 29 items and three sub-dimensions (transcendence, harmony with nature, and anomie). Higher scores on the sub-dimensions indicate that the individual possesses the characteristics of that sub-dimension. When calculating the total score, the items in the anomie sub-dimension must be reverse-scored. Exploratory factor analysis showed that the three sub-dimensions explained 58.337% of the total variance. The confirmatory factor analysis results indicated that the model had a good fit ($x^2/df = 4.11$, RMSEA = .06, SRMR = .050, NFI = .90, CFI = .92). The Cronbach's alpha internal consistency coefficient for the total scale was .89. In the current study, the internal consistency coefficient was found to be .83.

Meaning in Life Scale: The scale was developed by Steger et al. (2006) and adapted into Turkish culture by Akın and Taş (2015). It is a 7-point Likert-type scale consisting of 10 items and two sub-dimensions (presence of meaning and search for meaning). Higher scores on the sub-dimensions indicate that the individual possesses the relevant characteristics of that sub-dimension. One item (item 9) is reverse-scored. The construct validity of the scale was tested using both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA results showed that the 10 items explained 57% of the total variance. The goodness-of-fit values obtained from CFA demonstrated that the scale was valid ($x^2 = 77.77$, df = 31, RMSEA = .065, NFI = .95, CFI = .97, GFI = .96, AGFI = .93, RFI = .93, SRMR = .065). The Cronbach's alpha internal consistency coefficients were found to be .77 for presence of meaning and .83 for search for meaning. In the current study, the internal consistency coefficients were calculated as .81 for presence of meaning and .83 for search for meaning.

Data Collection and Analysis

The data were collected from students face-to-face on a voluntary basis. It was stated that they could withdraw from the study at any time. Informed consent was obtained from the students. This study was conducted in full compliance with the ethical standards of the Declaration of Helsinki and was approved by the Ethics Committee of the Faculty of Social and Human Sciences at Sakarya University (Date and Number: 06.10.2022- E-61923333-050.99-175484). Data were collected from a total of 432 students. After removing outlier cases, the final analysis was conducted with a total of 420 data points. First, the normality of the data was tested. Once it was determined that the data were normally distributed (Table 1), parametric tests were applied. The relationship between game addiction, spiritual well-being, and meaning in life was tested using Pearson correlation analysis. Since the predictive effect of the variables on game addiction was examined using hierarchical regression analysis, the assumptions of multiple regression were tested. After confirming the normal distribution, the Durbin-Watson value was checked for autocorrelation problems, and it was observed that the value (dw = 1.922) fell within the acceptable range of 1.5–2.5, indicating no autocorrelation (Küçüksille, 2014). The issue of multicollinearity was assessed using variance inflation factors (VIF) and tolerance values. It was found that VIF values (ranging from 1.004 to 1.215) were below the acceptable threshold of 10, and tolerance values (.823–.996) were above .10, indicating acceptable limits. The scatter plot of the variables was examined to assess the assumptions of multivariate normality and linearity, revealing an ellipse-like distribution, thus confirming that the assumptions were met (Çokluk et al., 2012).

Results

Before conducting hierarchical regression analysis, descriptive statistics, skewness, and kurtosis values, as well as the relationships between the variables, were examined, and the obtained values are presented in Table 1.

Table 1.
Descriptive Statistics and Correlation Coefficients

Variables	N	M/Se	Sd	Skewness	Kurtosis	GA	SWB	POM	SFM
GA	420	13.00/.22	4.60	1.46	1.92	-			
SWB	420	122.29/.51	10.45	-.671	1.16	-.308**	-		
POM	420	26.68/.32	6.50	-.720	.294	-.258**	.407**	-	
SFM	420	25.19/.32	6.63	-.874	.317	-.124*	.069	.355**	-

**p< .01, p<.05, GA: Game Addiction, SWB: Spiritual Well-Being, POM: Presence of Meaning, SFM: Search for Meaning*

According to the skewness and kurtosis values in Table 1 (.214–1.92), the data are normally distributed (George & Mallery, 2016). Examining the correlation coefficients between variables, a negative relationship was found between game addiction and spiritual well-being (r= -.308, p <.01), as well as between game addiction and presence of meaning (r= -258, p<.01) and search for meaning (r=-.124, p<.05). A positive relationship was found between spiritual well-being and presence of meaning (r= .407, p <.01), whereas no significant relationship was found between spiritual well-being and search for meaning (r= .069, p >.05).

The results of the hierarchical regression analysis regarding the predictive effects of gender, spiritual well-being, and the sub-dimensions of meaning in life (presence of meaning and search for meaning) on game addiction are presented in Table 2.

Table 2.
Hierarchical Regression Analysis for the Prediction of Game Addiction by Gender, Spiritual Well-Being, Presence of Meaning, and Search for Meaning

Variable	B	Standard Error	**B**	*t*	*p*	Dual R	Partial R
Constant	11.82	.288		41.04	.000		
Gender (Male)	2.68	.433	.290	6.21	.000	.290	.290
Block 1: R= .290; R^2= .084; ΔR^2= .084; $F_{(1, 418)}$ = 38.52; p< .001							
Constant	27.98	2.42		11.58	000		
Gender (Male)	2.60	.412	.281	6.32	.000	.280	.295
SWB	-.132	.020	-.300	-6.73	.000	-.308	-.313
Block 2: R= .417; R^2= .174; ΔR^2= .090; $F_{(2, 417)}$ = 43.95; p< .001							
Constant	27.96	2.50		11.17	.000		
Gender (Male)	2.60	.408	.281	6.37	.000	.290	.299
SWB	-.104	.021	-.236	-4.87	.000	-.308	-.233
POM	-.107	.036	-.152	-2.94	.003	-.258	-.143
SFM	-.022	.033	-.032	-.682	.496	-.124	-.033
Block 3: R= .444; R^2= .198; ΔR^2= .023; $F_{(4, 415)}$ = 25.54; p< .001							

GA: Game addiction, SWB: Spiritual Well-Being, POM: Presence of Meaning, SFM: Search for Meaning

The results of the hierarchical regression analysis conducted in three steps are presented in Table 2. In the first step, the gender variable was included in the analysis. In the second block, spiritual well-being was added to the analysis. In the third block, the sub-dimensions of the meaning in life scale, namely presence of meaning and search for meaning, were included in the analysis.

In the first block, gender was found to be a significant predictor of game addiction ($F(1, 418) = 38.52$; $p < .001$, $R = .290$; $R2 = .084$; $\Delta R2 = .084$). Accordingly, gender ($\beta = .290$, $p < .01$) explained 8.4% of the variance in game addiction.

In the second block, spiritual well-being was found to be a significant predictor of game addiction ($F(2, 417) = 43.95$; $p < .001$, $R = .417$; $R2 = .174$; $\Delta R2 = .090$). Spiritual well-being ($\beta = -.300$, $p < .001$) explained 9% of the variance in game addiction.

In the third block, the sub-dimensions of the meaning in life scale, presence of meaning and search for meaning, were included in the analysis. The overall model was found to be significant ($F(4, 415) = 25.54$; $p < .001$, $R = .444$; $R2 = .198$; $\Delta R2 = .023$). Examining the included variables, presence of meaning ($\beta = -.152$, $p < .01$) was found to significantly predict game addiction, whereas search for meaning ($\beta = -.032$, $p > .05$) was not a significant predictor. Meaning in life explained 2.3% of the variance in game addiction. When the three-step model was evaluated as a whole, it was observed that the variables explained approximately 20% of the variance in game addiction.

Discussion

This study examined gender, spiritual well-being, and meaning in life as predictors of gaming addiction among university students. The findings indicated that gender, spiritual well-being, and the presence of meaning in life significantly predicted gaming addiction, whereas the search for meaning did not.

Regarding the first research question, the results showed that gender significantly predicted gaming addiction. Male students exhibited significantly higher levels of gaming addiction compared to female students. A review of the literature reveals numerous studies supporting these findings (Horzum, 2011; Göldağ, 2018; Korkmaz & Korkmaz, 2019; Tejeiro Salguero & Moran, 2002; Taş & Güneş, 2019; Wittek et al., 2016). However, some studies have suggested that gaming addiction does not significantly differ by gender (Gunuc, 2017; Taş et al., 2014). Hoeft et al. (2008) conducted a pioneering study exploring why males are more prone to gaming addiction. Their research indicated that the brain's reward system is more active in males than in females during video gaming. This heightened activity in the reward system may explain why males engage in gaming more frequently to sustain these pleasurable feelings.

Concerning the second research question, the study found that spiritual well-being significantly and negatively predicted gaming addiction. Pong (2024) found that spiritual well-being predicts gaming addiction, while Taş (2022) and Utomo and Marianta (2023) reported that spiritual well-being significantly predicts internet addiction. The inverse relationship between spiritual well-being and gaming addiction suggests that spiritual well-being serves as a protective factor against gaming addiction. One of the key criteria of gaming addiction is its role in altering negative emotions and providing an escape from them (APA, 2013). Games function as a coping strategy for negative life events, which is a crucial factor in addiction development (Griffiths, 2005). In contrast to the dysfunctional aspects of gaming, spiritual well-being positively influences individuals by enabling them to cope with difficulties and fostering a sense of well-being (Lee & Salman, 2016). An increase in well-being and psychological resilience may act as a protective mechanism against the negative emotions and adverse experiences that contribute to gaming addiction. Reducing negative emotions through spiritual well-being may, in turn, reduce gaming addiction.

The final research question examined the predictive role of meaning in life (presence of meaning and search for meaning) in gaming addiction. The results indicated that the presence of meaning in life negatively and significantly predicted gaming addiction, whereas the search for meaning did not emerge as a significant predictor. The literature contains studies supporting the predictive role of meaning in life in gaming addiction (Kaya et al., 2023; Zhao et al., 2020). Meaning in life encompasses identifying life's value, purpose, and important goals and striving toward them (Jim et al., 2006). Individuals who find their lives meaningful are more likely to be disciplined in pursuing their goals, use their time effectively, and derive satisfaction from life. Studies indicate that an increased sense of meaning in life enhances psychological resilience (Kul et al., 2020), life satisfaction, positive self-perception, and internal locus of control (Taş & İskender, 2018). Conversely, individuals with gaming addiction exhibit lower self-efficacy, lower self-esteem, and greater maladjustment (Baş, 2018). In this context, while meaning in life is associated with positive attitudes and emotional states, gaming addiction is linked to more negative and pathological conditions. The sense of purpose, psychological resilience, and life satisfaction fostered by meaning in life suggest that it may serve as a protective factor against gaming addiction. Although the search for meaning was associated with gaming addiction, it did not significantly predict it. This may be due to individuals still being in the process of searching for meaning, without having yet formed attitudes or behaviors that reflect a defined purpose or life goals.

In conclusion, in the digital era, complete detachment from technology is unrealistic. Therefore, identifying protective factors against the potential adverse effects of technology may help mitigate its negative consequences. Enhancing spiritual well-being and meaning in life may serve as protective factors against the increasingly prevalent issue of gaming addiction.

Limitations

The results of the study were obtained from self-report questionnaires. The responses provided in the self-report questionnaires may be influenced by the individual's current emotional state. Additionally, the responses to these questionnaires may contain social desirability bias. The study is limited to university students. Since university students consist of individuals with a certain level of education, this may be a limitation. The cross-sectional nature of the study may also be a limitation for measuring multidimensional variables such as meaning in life and spiritual well-being.

Suggestions

Suggestions for both researchers and professionals in the field have been made based on the findings of the study. Researchers may investigate the variables used in this study in different age groups. The variables used in the study could also be explored with different research methods (e.g., experimental, longitudinal).

Mental health professionals, when working on the increasingly prevalent issue of gaming addiction, might consider enhancing spiritual well-being as a protective factor against this issue. Furthermore, they could focus on the meaning in life of individuals, as those who find life meaningful tend to be less addicted. They could conduct studies aimed at improving these two variables, especially among risk groups. School counselors could add modules to their psychoeducation programs to enhance spiritual well-being and meaning in

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Authors Contribution. Conceptualization: **İ.T.,** Data Collection: **A.U.**, Formal analysis: **İ.T.**, Methodology: **İ.T.**, **A.U.**, Writing-Reviewing and Editing: **İ.T., A.U.**, Writing- Original draft preparation: **İ.T., A.U.**

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life as a means to reduce gaming addiction. A comprehensive approach to the variables in psychoeducation programs may not only serve as a protective factor for gaming addiction and risk groups but could also function as a preventive measure for other groups.

References

Acar, H. (2014). Manevi iyi oluş ile dindarlık arasındaki ilişki üzerine bir değerlendirme. *Cumhuriyet Üniversitesi İlahiyat Fakültesi Dergisi*, *18*(2), 391-412.

Adler, A, (2010). *Yaşamın anlamı* (H. İlhan, Trans.). Alter. (Original work published 1931).

Akın, A., & Taş, İ. (2015). Yaşam anlamı ölçeği: Geçerlik ve güvenirlik çalışması, *Turkish Studies, 10*(3) 27-36. http://dx.doi.org/10.7827/TurkishStudies

Allahbakhshian, M., Jaffarpour, M., Parvizy, S., & Haghani, H. (2010). A survey on relationship between spiritual wellbeing and quality of life in multiple sclerosis patients. *Zahedan Journal of Research in Medical Sciences*, *12*(3), 29-33. https://www.sid.ir/en/Journal/ViewPaper. aspx?ID=183490

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental dsorders* (DSM-5®). American Psychiatric Pub.

Ando, M., Morita, T., Miyashita, M., Sanjo, M., Kira, H., & Shima, Y. (2010). Effects of bereavement life review on spiritual well-being and depression. *Journal of Pain and Symptom Management*, *40*(3), 453-459. https://doi.org/10.1016/j.jpainsymman.2009.12.028

Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors, 30*(2), 252-262. http://dx.doi.org/10.1037/adb0000160

Arıcak, O. T., Dinç, M., Yay, M., & Griffiths, M. D. (2018). İnternet oyun oynama bozukluğu ölçeği kısa formu'nun (IOOBÖ9-KF) Türkçe'ye uyarlanması: Geçerlik ve güvenirlik çalışması." *Addicta: The Turkish Journal on Addictions, 5*(4), 615-636. Doi: 10.15805/addicta.2018.5.4.0027

Baysak, E., Yertutanol, F. D. K., Şahiner, İ. V., & Candansayar, S. (2020). Çevrimiçi oyun oynayanların sosyo-demografik özellikleri ve oyun bağımlılığının bazı psikososyal etmenlerle ilişkisi. *Klinik Psikiyatri Dergisi*, *23*(2), 196-203. doi:10.5505/kpd.2020.10337

Büyüköztürk, Ş., Akgün, Ö. E., Demirel, F., Karadeniz, Ş., & Çakmak, E. K. (2018). *Bilimsel araştırma yöntemleri* (25. Baskı). Pegem Akademi.

Büyüköztürk, Ş. (2014). *Veri analizi el kitabı* (19. Baskı). Pegem Akademi.

Braun, B., Kornhuber, J., & Lenz, B. (2016). Gaming and religion: The impact of spirituality and denomination. *Journal of Religion and Health*, *55*(4), 1464-1471. https://doi.org/10.1007/s10943-015-0152-0

Brunborg, G. S., Mentzoni, R. A., & Frøyland, L. R. (2014). Is video gaming, or video game addiction, associated with depression, academic achievement, heavy episodic drinking, or conduct problems? *Journal of Behavioral Addictions*, *3*(1), 27-32. https://doi.org/10.1556/jba.3.2014.002

Cotton, S. P., Levine, E. G., Fitzpatrick, C. M., Dold, K. H., & Targ, E. (1999). Exploring the relationships among spiritual well-being, quality of life, and psychological adjustment in women with breast cancer. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, *8*(5), 429-438. https://doi.org/10.1002/(SICI)1099-1611(199909/10)8:5<429::AID-PON420>3.0.CO;2-P

Çokluk, Ö., Şekercioğlu G., & Büyüköztürk Ş. (2012). *Sosyal bilimler için çok değişkenli istatistik SPSS ve LİSREL uygulamaları*. (2. Baskı). Pegem Akademi.

Demir, R., & Murat, M. (2017). Öğretmen adaylarının mutluluk, iyimserlik, yaşam anlamı ve yaşam doyumlarının incelenmesi. *OPUS International Journal of Society Researches*, *7*(13), 347-378. https://doi.org/10.26466/opus.347656

Dermatis, H., & Galanter, M. (2016). The role of twelve-step-related spirituality in addiction recovery. *Journal of Religion and Health*, *55*(2), 510-521. https://doi.org/10.1007/s10943-015-0019-4

Dogra, A. K., Basu,S., & Das, S. (2011). Impact of meaning in life and reasons for living to hope and suicidal ıdeation: A study among college students. *SIS Journal of Projective Psychology & Mental Health, 18,* 89-102.

Durmuş, B., Yurtkoru, S. & Çinko, M. (2011). *Sosyal bilimlerde SPSS ile veri analizi* (4. bs.). Beta.

Ekşi, H., & Kardaş, S. (2017). Spiritual well-being: Scale development and validation. *Spiritual Psychology and Counseling*, *2*(1), 73-88. https://doi.org/10.12738/spc.2017.1.0022

Ekşi, H., Boyalı, C., & Ümmet, D. (2019). Öğretmen adaylarının spiritüel iyi oluş ile yaşamda anlam değişkenlerinin psikolojik dayanıklılığı yordaması: Bir yapısal eşitlik modeli (yem) denemesi. *Kastamonu Eğitim Dergisi*, *27*(4), 1695-1704. https://doi.org/10.24106/kefdergi.3256

Frankl, V. E. (2009). İnsanın *anlam arayışı* (S. Budak Trans.). Okuyan Us. (Original work published 1946).

Gentile, D. A., Bailey, K., Bavelier, D., Brockmyer, J. F., Cash, H., Coyne, S. M., Doan , A., Grant, D. S., Green, S., Griffiths, M., Markle, T., Petry, N. M., Prot, S., Rae, C. D., Rehbein, F., Rich, M., Sullivan, D., Woolley, E., & Young, K. (2017). Internet gaming disorder in children and adolescents. *Pediatrics*, *140*(Supplement_2), S81-S85. https://doi.org/10.1542/peds.2016-1758H

George, D., & Mallery, M. (2016). *IBM SPSS statistics 23 step by step a simple guide and reference* (14th edition). Routledge.

Glasser. W. (2003). *Seçim teorisi* (M. İzmirli, Trans). Hayat. (Original work published 1999).

Gomez, R., & Fisher, J. W. (2003). Domains of spiritual well-being and development and validation of the spiritual well-being questionnaire. *Personality and Individual Differences, 35*(8), 1975-1991. https://doi.org/10.1016/S0191-8869(03)00045-X

Göldağ, B. (2018). Lise öğrencilerinin dijital oyun bağımlılık düzeylerinin demografik özelliklerine göre incelenmesi. *YYÜ Eğitim Fakültesi Dergisi, 15*(1),1287-1315 http://dx.doi.org/10.23891/efdyyu.2018.105

Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use*, *10*(4), 191-197. https://doi.org/10.1080/14659890500114359

Gunuc, S. (2017). Peer influence in internet and digital game addicted adolescents: Is internet/digital game addiction contagious? *International Journal of High Risk Behaviors and Addiction*, *6*(2). https://doi.org/10.5812/ijhrba.33681

Hill, P. C., Pargament, K. I., Hood, R. W., McCullough, J. M. E., Swyers, J. P., Larson, D. B., & Zinnbauer, B. J. (2000). Conceptualizing religion and spirituality: Points of commonality, points of departure. *Journal for the Theory of Social Behaviour*, *30*(1), 51-77. https://doi.org/10.1111/1468-5914.00119

Hoeft, F., Watson, C. L., Kesler, S. R., Bettinger, K. E., & Reiss, A. L. (2008). Gender differences in the mesocorticolimbic system during computer game-play. *Journal of Psychiatric Research*, *42*(4), 253-258. https://doi.org/10.1016/j.jpsychires.2007.11.010

Horzum, M. B. (2011). İlköğretim öğrencilerinin bilgisayar oyunu bağımlılık düzeylerinin çeşitli değişkenlere göre incelenmesi. *Eğitim ve Bilim*, *36*(159), 56-68. https://egitimvebilim.ted.org.tr/index.php/EB/article/view/268/238

Jafari, E., Dehshiri, G. R., Eskandari, H., Najafi, M., Heshmati, R., & Hoseinifar, J. (2010). Spiritual well-being and mental health in university students. *Procedia-Social and Behavioral Sciences*, *5*, 1477-1481. https://doi.org/10.1016/j.sbspro.2010.07.311

Jim, H.S., Purnell, C. Q., Richardson, S. A., Golden-Kreutz, D., & Andersen, B. L. (2006). Measuring meaning in life following cancer. *Quality of Life Research, 15*, 1355-1371. https://doi.org/10.1007/s11136-006-0028-6

Karasar, N. (1998). *Bilimsel araştırma yöntemleri* (8. Basım). Nobel.

Kaya, A., Türk, N., Batmaz, H., & Griffiths, M. D. (2023). Online gaming addiction and basic psychological needs among adolescents: the mediating roles of meaning in life and responsibility. *International Journal of Mental Health and Addiction*, 1-25. https://doi.org/10.1007/s11469-022-00994-9

Kılıç, K. M. (2019). Ergenlerde dijital oyun bağımlılığı, zorbalık bilişleri ve empati düzeyleri arasındaki ilişkiler. *Elementary Education Online, 18*(2), 549-562. https://core.ac.uk/download/pdf/230035807.pdf

Koçak, M., & Traş, Z. (2021). Üniversite öğrencilerinde sosyal medya bağımlılığı ile sosyal ortamlarda gelişmeleri kaçırma korkusu ve yaşamın anlamı arasındaki yordayıcı ilişkiler. *MANAS Sosyal Araştırmalar Dergisi*, *10*(3), 1618-1631. https://doi.org/10.33206/mjss.893201

Korkmaz, Ö., & Korkmaz, Ö. (2019). Middle school students' game addictive levels, game habits and preferences. *Inonu University Journal of the Faculty of Education, 20*(3), 798-812. https://doi.org/10.17679/inuefd.505200

Kul, A. Demir, R., & Katmer, A. N. (2020). Covid-19 salgını döneminde psikolojik sağlamlığın yordayıcısı olarak yaşam anlamı ve kaygı. *Turkish Studies, 15*(6), 695-719. https://dx.doi.org/10.7827/TurkishStudies.44419

Kuss, D. J., & Griffiths, M. D. (2012). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health and Addiction*, *10*(2), 278-296. https://doi.org/10.1007/s11469-011-9318-5

Küçüksille, E. (2014). Çoklu doğrusal regresyon modeli. Ş Kalaycı (Ed.), *SPSS uygulamalı çok değişkenli istatistik teknikleri içinde* (p. 257-270). (6. Baskı). Asil.

Lee, Y. H., & Salman, A. (2016). Evaluation of using the Chinese version of the spirituality ındex of well-being (sıwb) scale in Taiwanese elders. *Applied Nursing Research*, 32206–32211. https://doi.org/10.1016/j.apnr.2016.07.008

Li, H., & Wang, S. (2013). The role of cognitive distortion in online game addiction among Chinese adolescents. *Children and Youth Services Review*, *35*(9), 1468-1475. https://doi.org/10.1016/j.childyouth.2013.05.021

Liu, S., Yu, C., Conner, B. T., Wang, S., Lai, W., & Zhang, W. (2017). Autistic traits and internet gaming addiction in Chinese children: The mediating effect of emotion regulation and school connectedness. *Research in Developmental Disabilities*, 68, 122-130. https://doi.org/10.1016/j.ridd.2017.07.011

Baş, M. (2018). Ergenlerde dijital oyun bağımlılığı ile psikolojik ve davranışsal bulgular arasındaki ilişkinin incelenmesi. *Atlas Journal*, *4*(9), 492-498. https://doi.org/10.31568/atlas.105

Mills, P., Wilson, K., Iqbal, N., Iqbal, F., Alvarez, M., Pung, M., & Redwine, L. (2015). Depressive symptoms and spiritual wellbeing in asymptomatic heart failure patients. *Journal of Behavioral Medicine, 38*(3), 407–415. https://doi.org/10.1007/s10865- 014-9615-0

McClain, C. S., Rosenfeld, B., & Breitbart, W. (2003). Effect of spiritual well-being on end-of-life despair in terminally-ill cancer patients. *The Lancet*, *361*(9369), 1603-1607. https://doi.org/10.1016/S0140-6736(03)13310-7

Opatz, J. P. (1986). Stevens Point: A longstanding program for students at a Midwestern university. *American Journal of Health Promotion*, *1*(1), 60-67. https://doi.org/10.4278/0890-1171-1.1.60

Öztürk, M., & Karademir B. F. (2024). Teknoloji bağımlılığının çalışma motivasyonuna etkisi. *Süleyman Demirel Üniversitesi İnsan Kaynakları Yönetimi Dergisi, 3*(2), 68-83. https://dergipark.org.tr/tr/pub/sduikyd

Pong, H. K. (2024). The relationship between spiritual well-being and game addiction of youths: a cross-sectional study. *Journal of Beliefs & Values*, *45*(1), 1-20. https://doi.org/10.1080/13617672.2022.2152262

Pontes, H. M., & Griffiths, M. D. (2015). Measuring DSM-5 internet gaming disorder: Development and validation of a short psychometric scale. *Computers in Human Behavior*, *45,* 137-143. https://doi.org/10.1016/j.chb.2014.12.006

Rohde, G., Kersten, C., Vistad, I., & Mesel, T. (2017). Spiritual well-being in patients with metastatic colorectal cancer receiving noncurative chemotherapy: a qualitative study. *Cancer Nursing*, *40*(3), 209. doi:10.1097/NCC.0000000000000385

Ross, L. (1995). The spiritual dimension: its importance to patients' health, well-being and quality of life and its implications for nursing practice. *International Journal of Nursing Studies*, *32*(5), 457-468. https://doi.org/10.1016/0020-7489(95)00007-K

Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry, 9,* 1–28. https://doi.org/10.1207/s15327965pli0901_1

Salman, A., & Lee, Y. H. (2019). Spiritual practices and effects of spiritual well-being and depression on elders' self-perceived health. *Applied Nursing Research*, *48*, 68-74. https://doi.org/10.1016/j.apnr.2019.05.018

Schnell, T. (2009).The Sources of meaning in life questionnaire (SoMe): Relations to demographics and well-being. *The Journal of Positive Psychology, 4* (6), 483-499. https://doi.org/10.1080/17439760903271074

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: assessing the presence of and search for meaning in life. *Journal of Counseling Psychology, 53*(1), 80-93.

Şimşir, Z., Hamarta, E., & Dilmaç, B. (2020). Stresle başa çıkmanın yordayıcısı olarak yaşamın anlamı ve manevi deneyim. *Kalem Eğitim ve İnsan Bilimleri Dergisi*, *10*(2), 509-528. doi:10.23863/kalem.2020.165

Taş, İ., Eker, H., & Anlı, G. (2014). Ortaöğretim öğrencilerinin internet ve oyun bağımlılık düzeylerinin incelenmesi. *Online Journal of Technology Addiction and Cyberbullying*, *1*(2), 37-57.

Tas, İ., & İskender, M. (2018). An examination of meaning in life, satisfaction with life, self-concept and locus of control among teachers. *Journal of Education and Training Studies*, *6*(1), 21-31. https://doi.org/10.11114/jets.v6i1.2773

Taş, İ. (2022). Spiritual well-being as a mediator between internet addiction and alienation. *Spiritual Psychology and Counseling, 7*(3), 281–300. https://dx.doi.org/10.37898/spiritualpc.1171408

Taş, İ., & Güneş, Z. (2019). 8-12 yaş arası çocuklarda bilgisayar oyun bağımlılığı, aleksitimi, sosyal anksiyete, yaş ve cinsiyetin incelenmesi. *Klinik Psikiyatri*, *22*(1), 83-92. https://doi.org/10.5505/kpd.2018.17894

Tejeiro Salguero, R. A., & Morán, R. M. B. (2002). Measuring problem video game playing in adolescents. *Addiction*, *97*(12), 1601-1606. https://doi.org/10.1046/j.1360-0443.2002.00218.x

Torres-Rodríguez, A., Griffiths, M. D., & Carbonell, X. (2017). The treatment of Internet Gaming Disorder: A brief overview of the PIPATIC program. *International Journal of Mental Health and Addiction*, 16, 1000-1015. https://doi.org/10.1007/s11469-017-9825-0

Utomo, K. D. M., & Marianta, Y. I. W. (2023). The role of social support and spiritual well-being in predicting Internet addiction among Indonesian seminarians. *Pastoral Psychology*, 1-16. https://doi.org/10.1007/s11089-023-01088-6

Wittek, C. T., Finserås, T. R., Pallesen, S., Mentzoni, R. A., Hans, D., Griffiths, M., & Molde, H. (2016). Prevalence and predictors of video game addiction: A study based on a national representative sample of gamers. *International Journal of Mental Health and Addiction,* 14, 672–686. https://doi.org/10.1007/s11469-015-9592-8

Wood, M., Center, H., & Parenteau, S. C. (2016). Social media addiction and psychological adjustment: Religiosity and spirituality in the age of social media. *Mental Health, Religion & Culture*, *19*(9), 972-983. https://doi.org/10.1080/13674676.2017.1300791

World Health Organization. (2019, 28 July). *ICD-11 for mortality and morbidity statistics*. https://icd.who.int/browse/2024-01/mms/en#1448597234

Yeşilyurt, F. (2020). Gaming duration and preferences: Relationships with psychiatric health, gaming addiction scores and academic success in high school students. *International Education Studies*, *13*(12), 111-119. https://doi.org/10.5539/ies.v13n12p111

Young, K. (2009). Understanding online gaming addiction and treatment issues for adolescents. *The American Journal of Family Therapy*, *37*(5), 355-372. https://doi.org/10.1080/01926180902942191

Zandi P. A., & Mirzaeidoostan, Z. (2019). Online game addiction relationship with cognitive distortion, parenting style, and narcissistic personality traits in students. *Iranian Journal of Psychiatry and Clinical Psychology*, *25*(1), 72-83.

Zhao, H., Li, X., Zhou, J., Nie, Q., & Zhou, J. (2020). The relationship between bullying victimization and online game addiction among Chinese early adolescents: The potential role of meaning in life and gender differences. *Children and Youth Services Review*, *116*, 105261. https://doi.org/10.1016/j.childyouth.2020.105261