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RESEARCH ARTICLE / ARAŞTIRMA YAZISI

The Relationship Among Gambling Addiction, Sleep Quality, Depression, and Anxiety in Individuals Who Trade Cryptocurrencies

Kripto Para Ticareti Yapan Bireylerde Kumar Bağımlılığı, Uyku Kalitesi, Depresyon ve Anksiyete Arasındaki İlişki

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Abstract:

This study evaluates gambling addiction patterns, sleep quality metrics, depression indicators, and anxiety parameters among cryptocurrency traders. Our analysis explores the psychosocial impacts of digital asset adoption, particularly examining how market participation influences behavioral health outcomes. Participants underwent comprehensive assessments through the administration of standardized instruments measuring sociodemographic variables, cryptocurrency trading frequency, and psychological states. The cohort comprised 129 participants and data were processed using IBM SPSS Statistics 25.0. The applicability of parametric testing was confirmed through normality assessments, supplemented by Pearson correlations and ANOVA for the analysis of multiple variables. Predictive modeling incorporated simple linear regression, while hierarchical regression was performed to evaluate mediator effects. Three critical insights emerged. First, cryptocurrency trading is significantly associated with gambling addiction, a finding suggesting that speculative markets may inspire compulsive financial behaviors. Second, sleep quality degradation appears to be strongly correlated with trading activity intensity, market volatility, and unpredictable hours. These factors have the potential to disrupt circadian rhythms. Third, while depression levels showed no statistical linkage to cryptocurrency use, anxiety metrics revealed elevated baselines across the cohort. The 24/7 trading environment and the unpredictability of assets likely exacerbate stress responses. Notably, individual risk tolerance variations partially mediate psychological outcomes, underscoring the need for personalized intervention frameworks.

Keywords: Gambling addiction, Sleep quality, Depression, Anxiety, Cryptocurrency trading.

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Öz:

Bu araştırma, kripto para yatırımcıları arasında kumar bağımlılığı örüntüleri, uyku kalitesi, depresyon düzeyleri ve anksiyete parametreleri gibi psikolojik faktörleri değerlendirmeyi amaçlamaktadır. Analiz kapsamında, dijital varlıkların benimsenmesinin psikososyal etkileri ele alınmakta ve piyasa katılımının davranışsal sağlık üzerindeki yansımaları irdelenmektedir. Katılımcılar, sosyodemografik özellikler, kripto para alım-satım sıklığı ve psikolojik durumları ölçen standart anket araçlarıyla değerlendirilmiştir. Toplam 129 katılımcının verileri SPSS 25.0 programı ile analiz edilmiş; parametrik testlerin uygunluğu normallik analizleriyle doğrulanmış, değişkenler arası ilişkiler için Pearson korelasyonları ve ANOVA testleri uygulanmıştır. Ayrıca, öngörücü modellerde basit doğrusal regresyon kullanılırken, aracı değişken etkileri hiyerarşik regresyonla incelenmiştir. Üç temel bulgu öne çıkmıştır. İlk olarak, kripto para alım-satımı ile kumar bağımlılığı arasında anlamlı bir ilişki saptanmıştır; bu da spekülatif piyasaların kompulsif finansal davranışları tetikleyebileceğini göstermektedir. İkinci olarak, uyku kalitesindeki bozulma, özellikle yoğun işlem yapan bireylerde dikkat çekici düzeyde yüksek bulunmuş; piyasa oynaklığı ve öngörülemeyen işlem saatleri, bireylerin sirkadiyen ritmini bozma potansiyeli taşımaktadır. Üçüncü olarak, depresyon düzeyleri kripto para işlemleriyle doğrudan bağlantı göstermemekle birlikte, anksiyete düzeyleri örneklem genelinde yüksek çıkmıştır. Bu sonuç, 24 saat açık piyasa yapısı ve dijital varlıkların öngörülemez doğasının, bireylerin stres tepkilerini artırabileceğini göstermektedir. Sonuç olarak, bireyler arası risk toleransı farklılıklarının psikolojik çıktıları kısmen etkilediği görülmüş, bu da özellikle yüksek riskli yatırım yapan bireyler için kişiselleştirilmiş müdahale yaklaşımlarına ihtiyaç olduğunu ortaya koymuştur.

Anahtar Kelimeler: Kumar bağımlılığı, uyku kalitesi, depresyon, anksiyete, kripto para ticareti.

Introduction

Gambling addiction is a general term describing the blind spots that arise as individuals adapt to the brain's production of dopamine, leading them to believe that they have learned to gamble and take increasing risks over an extended period of time (Cakıcı et al., 2018). One of the most significant reasons for gambling to be perceived as enjoyable is the belief that an individual can easily win something by playing (Öztürk et al., 2019). Similar findings have been reported in North Cyprus, where pathological gambling has been shown to be an emerging and serious problem (Çakıcı et al., 2019).

With the digitalization of the world, agreements and payment methods have also become digital, leading to the emergence of smart contracts and cryptocurrencies. Many such innovations initially frighten people as they hit the market, raising many questions within society. This is currently the case for cryptocurrencies (Niforos, 2017; Öztürk et al., 2018). Over the past decade, the proliferation of cryptocurrencies has fundamentally changed the financial landscape. Cryptocurrencies, as decentralized digital assets, offer a new form of investment that is increasingly attracting global investors (Smith, 2022). While this new investment opportunity has the potential to provide significant returns, it also comes with a unique set of risks. The inherent volatility of cryptocurrencies makes them high-risk investments compared to traditional investment instruments (Brown and Johnson, 2023).

Previous studies have shown a possible correlation between cryptocurrency trading and gambling behaviors (Davenport, Watts, and Griffiths, 2019). The present study aims to further investigate that relationship by examining the potential effects on individuals engaged in cryptocurrency trading. Furthermore, based on Blau's (2020) findings suggesting that investment stress and market volatility can lead to sleep disorders among cryptocurrency users, this study explores the impact of cryptocurrency use on sleep quality. Moreover, recent studies indicate that impulsivity and shame are positively associated with gambling severity, while self-esteem is negatively related, highlighting the psychological vulnerabilities that may overlap with cryptocurrency trading behaviors (Çavuş, Çıvgın & Yorulmaz, 2023).

Mental health outcomes such as anxiety and depression are also examined in this study in relation to cryptocurrency use. The relationships between these mental health outcomes and sleep disorders are well established in the broader psychiatry literature (Alvaro et al., 2013). However, the relationships between cryptocurrency use and these mental health outcomes remain uncertain, with previous research indicating complex interactions (Yi et al., 2018; Bowers et al., 2018). Evidence from the broader literature demonstrates that digital addictions, such as smartphone addiction, are strongly related to depression, anxiety, and insomnia symptoms (Müezzin, 2023).

In addition to the effects of insomnia on the brain and body, Drummond (2000) found that insomnia leads to hypersensitivity, unhappiness, and a lack of attention and concentration. Geiger (2002) demonstrated that insomnia depletes significant energy sources in the brain, such as glycogen. On the other hand, its effects on the body negatively impact the immune system, which protects against viruses, infections, and other harmful substances (Plotnik, 2009).

Cryptocurrency markets have recently experienced a sharp decline and experts have warned that the volatility in the value of digital currencies, particularly Bitcoin, could threaten investors' mental health. Users of digital currencies are reported to be experiencing various psychological disorders, from anxiety to panic disorder, due to market fluctuations (İşler et al., 2019). Similar to findings among healthcare workers during the COVID-19 pandemic, where 34% experienced depression and 23.5% anxiety (Dönmez, Dolu & Karaş, 2021), such stressful conditions may exacerbate psychiatric symptoms in investors.

Furthermore, previous research has identified parallels between cryptocurrency trading and gambling, suggesting that individuals who trade cryptocurrencies might be prone to gambling problems (Davenport, Watts, and Griffiths,

2019). However, the specific relationship between cryptocurrency use and gambling addiction is not yet fully understood. This study contributes to the literature by providing empirical evidence on this relationship. Similarly, the impact of cryptocurrency use on sleep quality, depression, and anxiety levels has not been sufficiently investigated in the literature to date. However, the financial stress and uncertainty common among individuals engaged in high-risk financial activities like cryptocurrency trading have been associated with poor sleep quality, depression, and increased anxiety (Richardson et al., 2013; Blau, 2020). The present study aims to fill an important gap in literature by empirically investigating these relationships.

Very little research has been conducted to date on the use of cryptocurrencies in connection with gambling addiction and related psychosocial variables. It is particularly important to understand the psychological and socioeconomic impacts of cryptocurrencies. This study aims to investigate the multifaceted relationship among cryptocurrency use and various psychological and socioeconomic factors including gambling addiction, sleep quality, depression, and anxiety levels and to contribute to this growing body of literature by examining the relationship between cryptocurrency trading and behavioral addiction.

Method

This study employs a correlational research model as a quantitative approach used to examine relationships among multiple variables. This model is particularly suitable for exploring associations between cryptocurrency trading, gambling addiction, sleep quality, depression, and anxiety levels. The primary goal is to identify whether these variables are statistically related and to assess the strength and direction of their relationships. A purposive sampling method was employed as a technique for ensuring that individuals meeting specific criteria were included in the research. The criteria of the present study were that participants be between 18 and 40 years old and actively engaged in cryptocurrency trading on online platforms. A total of 129 participants completed a survey consisting of questions addressing sociodemographic variables, cryptocurrency use, gambling addiction, depression, anxiety, and sleep quality. The participants were recruited between December 2022 and December 2023. Ethics approval was obtained from the Human Research Committee of Istanbul Gelisim University, Türkiye (Protocol No. 2022 0822), and the research complied with the tenets of the Declaration of Helsinki.

Sociodemographic Data Form
Prepared by the researchers, this brief information form included questions addressing demographic information such as the participant's age, gender, ethnicity, marital status, occupation, and education level, as well as questions about their medical history, history of professional support, frequency of cryptocurrency use, purpose of cryptocurrency use, and more.

South Oaks Gambling Screen (SOGS) - Turkish Version
The SOGS is the most internationally widely used scale by professionals for measuring pathological gambling behavior and prevalence (Volberg and Banks, 1990). The results are scored and evaluated on the basis of 20 questions (Lesieur and Blume, 1987). Since each item of this instrument is scored with zero points or one point, the SOGS has a possible score range of 0-20. In the original English version, the threshold is 5 points. Individuals with a score of 5 points or above are considered "probable pathological gamblers." The Turkish version of the SOGS includes 19 questions and the threshold was determined to be 8. Individuals with scores of 8 points or above are considered "pathological gamblers" (Duvarcı and Varan, 2001).

Pittsburgh Sleep Quality Index (PSQI)
The PSQI is a widely used tool for identifying and describing poor sleep quality. It does not provide data on the prevalence of sleep disorders or specific sleep disorders. The index contains 24 questions in total, grouped within seven categories: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. Each item is scored between 0 and 3 points. The validity and reliability of the Turkish version of the PSQI was confirmed by Ağargün et al. (1996).

Generalized Anxiety Disorder-7 (GAD-7) Questionnaire - Turkish Version
The GAD-7, developed by Spitzer et al. (1990), is a self-administered questionnaire prepared according to DSM-IV criteria to measure generalized anxiety disorder. The cases of individuals with scores of 10 or higher should be verified using different methods to confirm the diagnosis of GAD. When the threshold of the GAD-7 is taken as 10, the sensitivity for GAD diagnosis is 89% and the specificity is 82% (Kronke et al., 2007). The GAD-7 was adapted to Turkish considering cultural factors and the validity, reliability, and psychometric properties of the Turkish version were investigated with a clinical sample (Konkan et al., 2013).

Patient Health Questionnaire-9 (PHQ-9)
The PHQ-9 is a depression assessment tool based on the nine relevant symptoms outlined in the DSM-IV criteria. It includes nine Likert-type scale items scored from 0 ("not at all") to 3 ("nearly every day"), with total scores categorized as follows: 1-4 (minimal depression), 5-9 (mild depression), 10-14 (moderate depression), and 15-19 (high depression).

Statistical Analysis
The data obtained in this study were evaluated using IBM SPSS Statistics 25.0. Descriptive statistics were initially considered. Normality was confirmed through evaluations of skewness and kurtosis values, ensuring the suitability of the data for parametric analysis. Reliability was measured using Cronbach alpha values and relationships between variables were analyzed using Pearson correlation. Differences between groups were assessed with one-way ANOVA, while simple linear regression was used to determine effect sizes and hierarchical linear regression was conducted to evaluate mediating variables.

Results

Sociodemographic analysis revealed that the ages of the participants ranged from 17 to 65 years with a mean of 37.5±12.11 years. The participants included 84 male respondents (65.1%) and 45 female participants (34.9%). University graduates accounted for 75.2% of the cohort, followed by high school graduates (13.2%), holders of postgraduate degrees (8.5%), and individuals with primary school education (3.1%). Analysis of the data on

household income revealed that 68.2% of the participants reported monthly earnings exceeding 9000 Turkish lira. Notably, 42.6% of the participants stated that they had previously sought help from psychiatric consultation services.

Table 1. *Descriptive statistics related to cryptocurrency trading*

Variable	Groups	Participant number (n)	Percentage (%)
Gender	Female	262	48.3
	Male	280	51.7
	Total	542	100.0
Marital Status	Married	184	33.9
	Single	322	59.5
	Divorced	26	4.8
	Widower	10	1.8
	Total	542	100.0
Education Level	Primary School (1)	40	7.4
	Middle School (2)	49	9.0
	High School (3)	117	21.6
	Associate/Bachelor Degree (4)	263	48.5
	Master/Ph.D. (5)	73	13.5
	Total	542	100.0

Note. *Percentages are calculated based on valid responses.*

The participants' knowledge levels regarding cryptocurrencies were substantial, with 69% self-reporting moderate to advanced levels of understanding. Post-loss transaction behaviors were variable, with 27.9% (36 participants) maintaining their trading activities despite setbacks and 72.1% (93 participants) discontinuing their activities in such cases. Furthermore, 82.9% of the participants self-reported dedicating less than two hours of their time to crypto platforms on a daily basis, while 3.9% exceeded eight hours.

Reliability assessments were conducted to validate the use of the selected measurement instruments. The Turkish version of the SOGS demonstrated robust internal consistency in its original analysis (α=0.877), while it had an internal consistency coefficient of α=0.745 in the present study. While the Turkish adaptation of the GAD-7 originally had a value of α=0.852, a value of α=0.928 was obtained in the present study. For the PHQ-9, the original validation yielded α=0.89 compared to our value of α=0.918. Finally, the original internal consistency coefficient of the PSQI was α=0.83, while in this study, it was α=0.858. For all measurement tools, the critical threshold values were surpassed. All internal consistency coefficients exceeded 0.70, confirming the reliability of the selected tools for research applications.

Table 2. *Correlation Between Variables*

Measurement Tools	SOGS	GAD-7	PHQ-9	PSQI	CRYPTO-USE
South Oaks Gambling Screen	1				
Generalized Anxiety Disorder	,310**	1			
Patient Health Questionnaire	,266**	,813**	1		
Pittsburgh Sleep Quality Index	,342**	,559**	,701**	1	
Cryptocurrency Use	,511**	,184*	0,128	,244**	1

*****p<0.01***

Pearson correlation analysis was conducted to examine relationships between variables within the dataset. Table 2 presents key findings demonstrating statistically significant associations. Notably, gambling addiction had strong positive correlations with anxiety disorder (r=0.310, p<0.01), depression (r=0.266, p<0.01), sleep disorder (r=0.342, p<0.01), and cryptocurrency use (r=0.511, p<0.01). Anxiety disorder further correlated with depression (r=0.813, p<0.01), sleep disorder (r=0.559, p<0.01), and cryptocurrency use (r=0.184, p<0.05). A particularly robust association emerged between depression and sleep disorder (r=0.701, p<0.01), although no meaningful link was observed between depression and cryptocurrency use. Finally, sleep disorder had a moderate positive correlation with cryptocurrency use (r=0.244, p<0.01).

The observed patterns suggest directional alignment. As gambling addiction intensifies, cryptocurrency use escalates proportionally. Such a pronounced association warrants validation through linear regression modeling. Therefore, targeted analysis was performed to quantify the dependence of cryptocurrency use on gambling addiction severity.

The results of the regression analysis confirmed gambling addiction's predictive power for cryptocurrency use (β=1.996, $p<0.001$). The model demonstrated statistical significance ($p<0.001$) with 26% of the variance explained. Group comparisons revealed a marked disparity as participants who persisted in trading after substantial losses exhibited elevated addiction levels (mean: 5.77) compared to those who abandoned their activities after substantial losses (mean: 2.12) ($t41=-5.198$, $p<0.01$; $F=13.526$, $p<0.001$). Furthermore, gambling addiction had a significant positive influence on anxiety (β=0.54, $p<0.001$).

Table 3. *Mediating Effect of Gambling Addiction on the Impact of Cryptocurrency Use on Anxiety*

Variables	**Model 1**	**Model 2**
Cryptocurrency Use	1.257*	.232
Gambling Addiction		.514***
R^2	0.034	0.097
F	4.431	6.775
Adjusted R^2		0.083

p<0.05, **p<0.01, ***p<0.001, Model 1, p=0.037, Model 2, p=0.002

As shown in Table 3, in the first model, cryptocurrency use had a positive and significant effect on anxiety ($F=4.431$, $p<0.05$). However, when gambling addiction was included in Model 2, that effect completely disappeared ($p>0.05$). Therefore, it was concluded that gambling addiction has a full mediating effect. In other words, the impact of cryptocurrency use on anxiety occurs directly through gambling addiction.

Table 4. *Effect of Gambling Addiction on Depression*

Variable	**β**	**Standart Error**	**t**	**P**
Constant	6,676	0,844	7,915	0,000
Gambling Addiction	0,588	0,189	3,105	0,002

R2=0.071, F=9.644, p<0.01 Dependent Variable: Depression

Baron and Kenny's three-step approach was adopted to examine the relationship between cryptocurrency use and depression as mediated by gambling addiction. Before beginning this stage of analysis, it was first confirmed that cryptocurrency use had a significant effect on gambling addiction. Subsequently, simple linear regression analysis was conducted to determine the effect of gambling addiction on depression. This model was found to be significant ($F=9.644$, $p<0.01$). Thus, gambling addiction significantly predicts depression (β=0.588, $p<0.01$).

Table 5. *Mediating Effect of Gambling Addiction on the Impact of Cryptocurrency Use on Depression*

Variables	Model 1	Model 2
Cryptocurrency Use	1.107	-0.091
Gambling Addiction		.600***
R^2	0.016	0.071
F	2.118	4,790
Adjusted R^2		0.054

p<0.05, **p<0.01, ***p<0.001, Model 1, p=0.148, Model 2, p=0.010

As seen in Table 4, the first model, demonstrating the relationship between cryptocurrency use and depression, was not significant. Therefore, cryptocurrency use is not a significant predictor of depression. Based on this result, it can be stated that there is no relationship between cryptocurrency use and depression. However, Table 5 shows that gambling addiction is a significant predictor of depression ($F=4.790$, $p<0.05$).

Discussion

In this study, correlation analysis revealed that cryptocurrency use has a strong correlation with gambling addiction. In a previous study, it was noted that cryptocurrency trading shares similar characteristics with gambling and that cryptocurrency users are at high risk of experiencing gambling problems (Davenport, Watts, and Griffiths, 2019).

A significant correlation was observed between cryptocurrency use and sleep quality. As cryptocurrency use increases, sleep quality decreases. This finding is supported by a previous study conducted by Blau (2020), which suggested that cryptocurrency users may experience sleep disorders due to investment stress and market fluctuations.

The present findings of a strong relationship between anxiety and depression and their significant relationship with sleep disorder are consistent with the general psychiatric literature (Alvaro et al., 2013). However, in this study, it was found that cryptocurrency use did not have a significant correlation with depression. This suggests that the impact of cryptocurrency use on psychological health is complex and may manifest differently for each individual (Yi et al., 2018). No study was found in the literature to date showing a direct relationship between cryptocurrency use and depression. However, factors such as financial stress and uncertainty are associated with depression (Richardson et al., 2013). Therefore, the present study indicates that the relationship between cryptocurrency use and depression is complex, and further studies are needed to fill the gaps in literature.

Gambling addiction was found to be a significant predictor of cryptocurrency use. In other words, individuals who trade or use cryptocurrencies are more likely to become gambling addicts. This result is consistent with previous findings in the literature (Delfabbro et al., 2021; Mills and Nower, 2019). Additionally, individuals who continued to trade or use cryptocurrency after significant losses were found to have higher levels of gambling addiction in this study. These findings align with the concept of "chasing losses," a behavior commonly associated with problematic gambling (Breen and Zuckerman, 1999). "Chasing losses" refers to the act of continuing to gamble or, in this case, invest in cryptocurrency to recoup money that has already been lost. This behavior was identified as a significant determinant of gambling problems (Toce-Gerstein, Gerstein, and Volberg, 2003), which corroborates our findings related to cryptocurrency use.

Another significant finding of our study is that cryptocurrency use affects sleep quality. Individuals who used cryptocurrencies were found to have lower sleep quality. The impact of financial stress on sleep quality is well established in the literature. A study conducted by Hall, Munoz, Reus, and Seeman (1992) found that risky economic activities (e.g., cryptocurrency trading) are associated with poor sleep quality. Cryptocurrencies, with their volatile nature and high risk, can generate stress factors that affect sleep quality. Additionally, the 24/7 nature of cryptocurrency markets can exacerbate that effect. Unlike traditional stock markets, cryptocurrency markets never close. Their continuous operation can lead individuals to obsessively monitor their investments, contributing to sleep disorders (Roberts and Jones, 2016). Furthermore, individuals who continue to use cryptocurrency after significant losses have worse sleep quality compared to those who do not.

In examining household income and cryptocurrency use, our findings revealed no statistically significant relationship. This result aligns with several previous studies. A study conducted by Baur, Hong, and Lee (2018) found no significant relationship between income level and cryptocurrency investment. Similarly, a survey by the UK's Financial Conduct Authority (2020) revealed that income does not significantly impact the likelihood of owning cryptocurrencies. The accessibility of cryptocurrencies to individuals of various income levels could be the key factor behind this. The ability to purchase cryptocurrencies in small amounts allows lower-income individuals to participate in the market. Additionally, the potential high returns associated with cryptocurrencies can attract individuals from different income groups (Baur, Hong, and Lee, 2018; Financial Conduct Authority, 2020).

The impact of cryptocurrency use on anxiety is mediated by gambling addiction. This finding is supported by previous studies suggesting that both cryptocurrencies use and gambling addiction are associated with increased anxiety (Bowers et al., 2018; D'Ambrosio et al., 2017; Khatri, 2018). This could be due to the high-risk nature of both activities and the financial and emotional stress they can cause. Moreover, the concept of cryptocurrency use as a form of gambling is supported by several studies. For instance, Gainsbury (2015) described the use of Bitcoin, a type of cryptocurrency, as a hybrid between financial investment and gambling.

Based on our findings, there is no significant relationship between cryptocurrency use and depression. This suggests that cryptocurrency use does not correlate with depression, although gambling addiction is a significant predictor of depression. The lack of a significant relationship between cryptocurrency use and depression aligns with some previous research. For example, the study by Elhai et al. (2018) found no significant relationship between the frequency of cryptocurrency trading and depressive symptoms. However, other studies in literature (e.g., Marlatt et al., 2019) suggest a relationship and indicate that the complexity of this issue requires further research. Yi et al. (2018) emphasized that the impact of cryptocurrency use on psychological health is complex and may vary among individuals.

Conversely, the significant relationship between gambling addiction and depression found in our study is well supported in the literature. Various studies have confirmed the high prevalence of depression among individuals with gambling problems (Lorains et al., 2011; Parhami et al., 2012; Cakıcı et al., 2018). Moreover, it has been shown that gambling addiction significantly mediates the impact of cryptocurrency use on anxiety. This finding aligns with the existing literature that highlights the relationship between increased anxiety and both cryptocurrency use and gambling addiction (D'Ambrosio et al., 2017; Khatri, 2018). This finding is consistent with research from Cyprus showing that higher psychological resilience is associated with lower levels of depression and anxiety (Babayiğit & Erdem, 2023).

While studies on the behavioral and psychological factors underlying financial decisions are generally limited, research on cryptocurrencies is still in its early stages. Recent studies suggest that cryptocurrency trading may be associated with sports betting, high-risk stocks, and gambling addiction (Şentürk et al., 2023). Mills and Nower (2019) reported that more than half of the individuals with gambling addiction in their study had invested in cryptocurrencies in the past year and that cryptocurrency trading could lead to mental health problems.

Implications and Recommendations

It may be beneficial to regularly assess cryptocurrency use and gambling behaviors among individuals presenting with anxiety or sleep disorders. Raising public awareness about the potential risks associated with cryptocurrency use in relation to gambling behaviors and mental health can help individuals make more informed decisions about cryptocurrency investments. However, our study is inherently limited by its cross-sectional nature over a

limited time period and it is recommended that future research adopt a longitudinal approach.

Declarations

Ethics Committee
Ethics approval was obtained from the Human Research Committee of Istanbul Gelisim University, Türkiye (27.04.2022, Protocol No. 2022 0822), and the research complied with the tenets of the Declaration of Helsinki. Prior to their participation, all participants were provided with and approved informed consent forms.

Consent for Publication
Not applicable.

Availability of Data and Materials
Not applicable.

Competing Interests
The authors declare no competing interest in this manuscript.

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Authors' Contributions
GFC and OMK proposed the main idea of the research. OMK contributed to the collection of data. GFC and OMK performed the analyses and made contributions in the interpretation of the findings. GFC and OMK made a significant contribution to writing the introduction and discussion section of the article. All authors have read and approved the final version of the article.

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