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ARAŞTIRMA

Açık Erişim

## How Does Problematic Internet Use Mediate The Relation Between Belongingness And Mental Well-Being?

Problemlı İnternet Kullanımı Aidiyet İle Mental İyi Oluş Arasındaki İlişkiye Nasıl Aracılık Etmektedir?

Begüm Satıcı , M. Fatih Yılmaz 

**Abstract.** The present study examined whether problematic internet use mediate the links between belongingness and mental well-being. This study recruited 373 (57.4% female and 42.6% male) university students and the data collected via Warwick-Edinburgh Mental Well-Being Scale, General Belongingness Scale, and Young's Internet Addiction Test-Short Form. The data were analyzed by structural equation modeling and bootstrapping. Results showed that belongingness significantly predicted mental well-being and this relation was mediated by problematic internet use. Consequently, results highlight the significance of identifying the mechanisms that mediate the path between belongingness and university students' mental well-being.

**Keywords.** Mental well-being, belongingness, problematic internet use.

**Öz.** Bu araştırmada problemlı internet kullanımının aidiyet ile mental iyi oluş ilişkisinde aracı rolünün olup olmadığı incelenmiştir. Araştırmaya 373 (%57.4 kadın ve %42.6 erkek) üniversite öğrencisi katılmış ve veriler Warwick-Edinburgh Mental İyi Oluş Ölçeği, Genel Aidiyet Ölçeği ve Young İnternet Bağımlılığı Testi Kısa Formu ile elde edilmiştir. Araştırmanın verileri yapısal eşitlik modellemesi ve bootstrapping ile gerçekleştirilmiştir. Araştırmanın sonuçlarına göre aidiyet mental iyi oluşu anlamlı yordamakta ve problemlı internet kullanımı bu ilişkide aracılık yapmaktadır. Sonuç olarak bu araştırma; aidiyet ile üniversite öğrencilerinin mental iyi-oluşları arasındaki yola aracılık eden mekanizmaları tanımlamanın önemini vurgulamıştır.

**Anahtar Kelimeler.** Mental iyi oluş, aidiyet, problemlı internet kullanımı.

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## INTRODUCTION

After the emergence of the positive psychology at the end of the 20st century, it can be said to have gained broad acceptance among workers in the mental health field. It appears that one of the most important reasons for this acceptance is the reminder that positive concepts were ignored in explanations about being healthy. According to the definition of health by the World Health Organization (WHO), health is explained as not just lack of disease or disability, but full well-being in body, mind, spirit and social aspects (Ryff & Singer, 2008). As understood from this definition, health is not just limited to the absence of physical, mental and psychological disease, but goes beyond this situation. Positive psychology proposes the importance of the presence of positive concepts in explaining a healthy individual. In other words, when explaining whether a person's health is good or not, it is not sufficient for the balance of the scales not to weigh heavily toward the negative or neutral, but they need to weigh heavily toward the positive.

Positive psychology is a discipline focusing on individuals living positive experiences and developing positive aspects and thus preserving mental health. From this aspect, the concept of well-being appears to have an important place within positive psychology. One of the founders of the concept Seligman (2011) stated the basic topic in positive psychology is well-being. Although there are different types of well-being, optimal level of psychological functioning and experience is seen as common characteristic of well-being. When the relevant literature is examined, well-being appears to be explained by different dimensions like psychological well-being, subjective well-being and physical well-being types. Subjective well-being, equivalent to happiness, involves cognitive and emotional assessments of an individual related to their life (Diener, 2009). These assessments comprise judgements related to the individual's affect and life satisfaction. For example, if a person feels positive feelings frequently and negative feelings rarely and have positive assessment about life satisfaction, they can be said to have high subjective well-being. However, subjective well-being alone is not sufficient to state that this person's psychological health is in healthy situation (Robbins & Kliwer, 2000). Psychological well-being focuses on features like positive self-respect, quality of relationships with others, ability to manage their environment, finding meaningful and purposeful activities, and continuation of development (Ryff, 1989). Additionally, it is stated that

psychological well-being is not synonymous with happiness and has a different meaning than happiness (Ryff & Singer, 1998).

One of the concepts explaining well-being is mental well-being. Mental well-being is a construct encompassing both hedonic and eudaimonic viewpoints (Demirtaş, Baytemir & Güllü, 2018). Mental well-being is proposed to be a concept forming a unifying framework between psychological and subjective well-being (Keyes, 2002). The definition of mental well-being appears to represent an umbrella concept encompassing the individual's cognition, emotion and behavior in addition to satisfaction from their environment, feeling peaceful and in this sense not experiencing any mental confusion (Sawyer et al., 2001). WHO (2004) defines mental well-being as the state of well-being ensuring an individual is aware of their own abilities, deals with the stress of daily life, works productively and contributes to society. When the definition is examined, it can be said that individuals with high mental well-being need to be healthy in mental terms, in addition to having high psychological and subjective well-being.

When research related to mental well-being is examined, it appears the concept has positive significant correlations with positive concepts like hope (Demirtaş, Baytemir, & Güllü, 2018), life satisfaction, problem-solving skills (Kaya, 2018), happiness (Gönener, Öztürk, & Yılmaz, 2017) and purpose of the life (Hietalahti, Rantanen, & Kokko, 2016). Another case that has been investigated for correlation with well-being is belongingness (Gök & Kocayörük, 2019).

Belongingness appears to be a basic component of interpersonal relationships and is explained as an individual perceiving themselves to be a meaningful, valuable and important part of their surroundings (Duru, 2015). Belongingness is expressed as a feeling involving the mutual interaction, responsibilities and communication of the individual and the construct they are found in, requiring trust (Alptekin, 2011). An individual's development of belonging is shaped by time spent with other people and mutual interactions (Mavili, Kesen & Daşbaşı, 2014). It is stated that it is important for the person to see that he or she is recognized, approved and accepted by the individuals he or she cares about in the development of belongingness (Yeter, 2019).

The importance of belongingness in human life has been emphasized by many conceptualists. Belongingness is known to have a function in protecting mental health against negative experiences like loneliness, isolation and depression

(Mellor et al., 2008). Adler (1964) proposed that belongingness ensures survival in the process from a person's birth to when they gain economic independence, when all basic requirements like eating, drinking and security are met by others. Maslow (1943) stated belongingness was the third basic need after physiologic and security needs in the hierarchy of needs. Glasser (1999) stated that belongingness was one of the five basic needs in the reality therapy concept he developed. On the other hands, when studies investigating the correlation between belongingness and well-being are examined, it appears there is a positive significant correlation between belongingness and subjective well-being (Gök & Kocayörük 2019). Another study found that belongingness had a positive significant correlation with happiness (Yeter, 2019).

### **Purpose of the Study**

Problematic internet use is excessive use of the internet without control by a person and all behavior resulting from this leading to problems being experienced in their family, work and social life (Caplan, 2005). Another explanation is that problematic internet use is discomfort and functional impairment due to a person's inability to control internet use (Shapira et al, 2003). Difficulties experienced by individuals with problematic internet use may be explained by reduced duration allocated to social, family and occupational activities due to internet use, spending longer durations than planned on the internet and all efforts to reduce internet use producing no results (Goldberg 1996; Young, 1996).

There is no research encountered which investigates the correlation between problematic internet use and general belongingness, while researches (Chen, Li, & Long, 2007; Oktan 2015) investigating the correlation between problematic internet use and perceived social support has observed negative significant correlations. Additionally, in researches (Ceyhan & Ceyhan, 2008; Çetin Dağlı & Gündüz, 2017) investigating the relationship between problematic internet use and loneliness, a positive significant correlation was found. There are researches (McIntyre, Wiener, & Saliba; 2015; Savcı & Aysan, 2017) encountered showing negative correlations between problematic internet use and social connectedness.

When research about problematic internet use and well-being are examined, a variety of researches (Çağır & Gürkan, 2010; Yılmaz, 2013) are encountered which found negative correlations. Research investigating the mediating role of problematic internet use in the correlation between loneliness and psychological

well-being (Çetin-Dağlı & Gündüz, 2017) determined that problematic internet use had a mediating role in the relationship between loneliness and psychological well-being.

In the literature, there is much research investigating the correlation of well-being with problematic internet use. Additionally, though there is no research found which investigates the correlation between problematic internet use and general belongingness, there are findings (Keser-Özcan & Buzlu, 2007; Çağır & Gürkan, 2010) about negative correlations between concepts similar to general belongingness like social connectedness and perceived social support with problematic internet use and positive correlation with the concept contrasting general belongingness of loneliness. There are a few studies (Carlsson, Lampi, Li, & Martinsson, 2014; Gök & Kocayörük, 2019) investigating the relationships between well-being and belongingness. With all of these, there is no finding encountered whether investigates the mediating role of problematic internet use between belongingness and mental well-being. In this context, the target of this research was to investigate the mediating role of problematic internet use between belongingness and mental well-being.

## METHOD

### Participants

The research was completed with the participation of students from two state universities in the Eastern Black Sea and Eastern Anatolian regions. Participants obtained with the convenience sampling method included 214 (57.4%) females and 159 (42.6%) males ( $N = 373$ ). Ages varied from 17 to 26 years, with mean age of 20.69 ( $SD = 1.9$ ). Of participants, 100 (26.8%) were in first year, 96 (25.7%) were in second year, 99 (26.5%) were in third year and 78 (20.9%) were in fourth year of university.

### Ethical Statement

This research was completed in line with the Helsinki Declaration. In line with this, the study was investigated and permitted by Artvin Coruh University Scientific Research and Ethical Review Board (REF: 78646441-050.01.04-E.2700). Additionally, data tools in the study were only distributed to volunteer participants. All participants provided informed consent. Additionally,

participants were informed that they could withdraw from the study at any time during data collection.

### **Data Collection Tools**

The research data were obtained with Warwick-Edinburgh Mental Well-Being Scale, General Belongingness Scale, and Young's Internet Addiction Test-Short Form. Detailed information about the data collection tools is given below.

**Warwick-Edinburgh Mental Well-Being Scale (MWBs).** Developed by Tennant et al., (2017) the MWBs was adapted to Turkish by Keldal (2015). The MWBs has a single dimension and comprises a total of 14 items. Grading is on a 5-point Likert scale and possible points that can be obtained from the MWBs vary from 14 to 70 with higher points indicating increased mental well-being levels of individuals. The unidimensional structure of the scale was confirmed with university students during the Turkish adaptation study ( $\chi^2/df = 3.71$ , NFI = .94, RFI = .93, IFI = .96, CFI = .96, NNFI = .95, and RMR = .054) and internal consistency coefficients were stated to be at acceptable levels ( $\alpha = 0.92$ ; Keldal, 2015).

**General Belongingness Scale (GBs).** Developed by Malone et al. (2012) the GBs was adapted to Turkish by Satici and Gocet-Tekin (2016). The GBs has two dimensions of accept and reject and comprises a total of 12 items. Grading is on a 7-point Likert type scale with possible points obtained from the GBs varying from 6 to 42 for each dimension. Increasing points indicate the level of the relevant dimension is increased. The two-dimensional structure of the scale was confirmed with university students during the Turkish adaptation study ( $\chi^2/df = 2.26$ , CFI = .93, GFI = .94, AGFI = .92, SRMR = .05, and RMSEA = .06) and internal consistency coefficients were stated to be at acceptable levels ( $\alpha = 0.82$  and  $0.76$ , respectively; Satici & Gocet-Tekin, 2016).

**Young's Internet Addiction Test-Short Form (YIAT-sf).** Developed by Young (1998) the YIAT-sf was adapted to Turkish by Kutlu, Savci, Demir, and Aysan (2016). The YIAT-sf has a single dimension and comprises a total of 12 items. Grading is on a 5-point Likert scale and possible points that can be obtained from the YIAT-sf vary from 12 to 60 with higher points indicating increased problematic internet use levels of individuals. The unidimensional structure of the scale was confirmed with university students during the Turkish adaptation study ( $\chi^2/df = 2.78$ , CFI = .95, GFI = .93, AGFI = .90, IFI = .91,

and RMSEA = .07) and internal consistency coefficients were stated to be at acceptable levels ( $\alpha = 0.91$ ; Kutlu et al., 2016).

### **Data Analysis**

Structural equation modelling (SEM) was used to test whether problematic internet use had a mediating role or not in the relationship between general belongingness and mental well-being of university students. Before beginning SEM, descriptive statistics, correlation analysis and reliability coefficients were investigated for the variables. The first step in SEM deals with the measurement model. After the measurement model, the hypothetical structural model is tested. In order to fully reveal the relationship network, both partial mediating model and full mediating model were tested. A range of fit indices are used to test whether the models are confirmed or not. These include the chi-square degree of freedom ratio ( $\chi^2/df$ ) and RMSEA values. Acceptable threshold values were determined as  $\chi^2/df < 5$ ; CFI, NFI and TLI  $> 0.90$ ; and SRMR and RMSEA  $< 0.80$  (Hu & Bentler 1999; MacCallum, Browne, & Sugawara, 1996). Model comparisons (partial and full) used the chi-square difference test. The SEM in this study used the parceling method. The parceling method is used to reduce the observed variable numbers and to contribute to ensuring normal distribution (Nasser-Abu Alhija & Wisenbaker, 2006).

Along with SEM to test the problematic internet use mediation of the correlation between general belongingness and mental well-being, the bootstrapping procedure was completed, which has begun to be used frequently in recent times. The bootstrapping procedure performs 10,000 resampling to create coefficients and confidence intervals. When the created confidence interval does not contain zero, the results are concluded to be significant. The analyses in the study were completed using IBM SPSS Statistics 22, Amos Graphics, and the JASP.

### **RESULTS**

In this section, firstly descriptive statistics including mean, standard deviation, skewness and kurtosis for the variables, correlation results showing relationships between variables and reliability coefficients are given. Then, findings are presented about the measurement model and structural model. Finally, the bootstrapping procedure results related to the chosen model are given.



### Correlation and Descriptive Statistics

The descriptive statistics and the correlation analysis results for the research variables of mental well-being, belongingness and problematic internet use are presented in Table 1. Firstly, the normal distribution of the variables was investigated. Skewness values varied from -0.948 to 0.593, while kurtosis values varied from -0.536 to 1.68. These results are within the  $\pm 2$  normality criteria stated by George and Mallery (2010), so it was concluded the variables had normal distribution. When reliability coefficients are investigated, they abided by the criterion of being above .70 as recommended by Nunnally and Bernstein (1994).

**Table 1. Correlations and descriptive statistics (N = 373)**

<i>Correlation</i>	1	2	3	4
1. Mental well-being	–			
2. Accept	.34**	–		
3. Reject	-.30**	-.37**	–	
4. Problematic internet use	-.32**	-.31**	.28**	–
<i>Descriptive</i>				
Cronbach's $\alpha$	.870	.738	.708	.863
McDonald's $\omega$	.872	.759	.714	.865
Mean	52.43	32.80	16.16	26.98
Standard deviation	8.20	5.35	6.13	8.19
Skewness	.520	-.948	.422	.593
Kurtosis	.818	1.68	-.536	.171

Note. \*\*  $p < .001$

When correlation results are investigated, as seen in Table 1, all variables can be said to have significant correlations with each other. There was positive correlation between mental well-being with accept ( $r = .34, p < .001$ ) and negative correlations for mental well-being with reject ( $r = -.30, p < .001$ ) and problematic internet use ( $r = -.32, p < .001$ ). On the other hand, a negative correlation was present for problematic internet use with accept ( $r = -.31, p < .001$ ) and positive correlation was present for reject ( $r = .28, p < .001$ ).



### Structural Equation Modeling

**Measurement Model.** The measurement model included four latent variables of mental well-being, problematic internet use, accept and reject and 10 observed variables occurring due to these latent variables. Analysis results found the measurement model had acceptable goodness of fit indices:  $\chi^2$  (29, N = 373) = 94.522,  $p < .001$ ; CFI = 0.96; NFI = 0.95; GFI = .95; TLI = 0.94; SRMR = 0.03; RMSEA = 0.07. Factor loadings in the measurement model varied from 0.64 to 0.88, and all factor loads were observed to be significant. Considering these values, the measurement model was confirmed; in other words, the observed variables can be said to significantly represent the latent variables.

**Structural Model.** In this section of the research, firstly the full mediating structural model was tested. In the full mediating model, there was no direct path between accept and reject with mental well-being. When the goodness of fit indices for the full mediating model are investigated, apart from SRMR (0.09) and RMSEA (0.10), all others had acceptable levels; [ $\chi^2$  (31, N = 373) = 134.41,  $p < .001$ ; CFI = 0.94; NFI = 0.92; GFI = 0.93; TLI = .91]. In order to identify the best model, testing of the partial mediating model was begun. In the partial mediating model, the direct path from the independent variables to the dependent variable is added. When the goodness of fit values for this model are dealt with, all values appear to be acceptable;  $\chi^2$  (29, N = 373) = 94.522,  $p < .001$ ; CFI = 0.96; NFI = 0.95; GFI = .95; TLI = 0.94; SRMR = 0.03; RMSEA = 0.07. Additionally, the chi-square difference test determined the direct path included in the partial mediating model significantly contributed to the model ( $\Delta\chi^2 = 39.89$ , SD = 2,  $p < .001$ ). As a result, due to all goodness of fit indices for the partial mediating model being acceptable and the chi-square difference test results, the model with problematic internet use having a partial mediating role between general belongingness and mental well-being of university students was chosen. The path coefficients related to this model are presented in Figure 2.

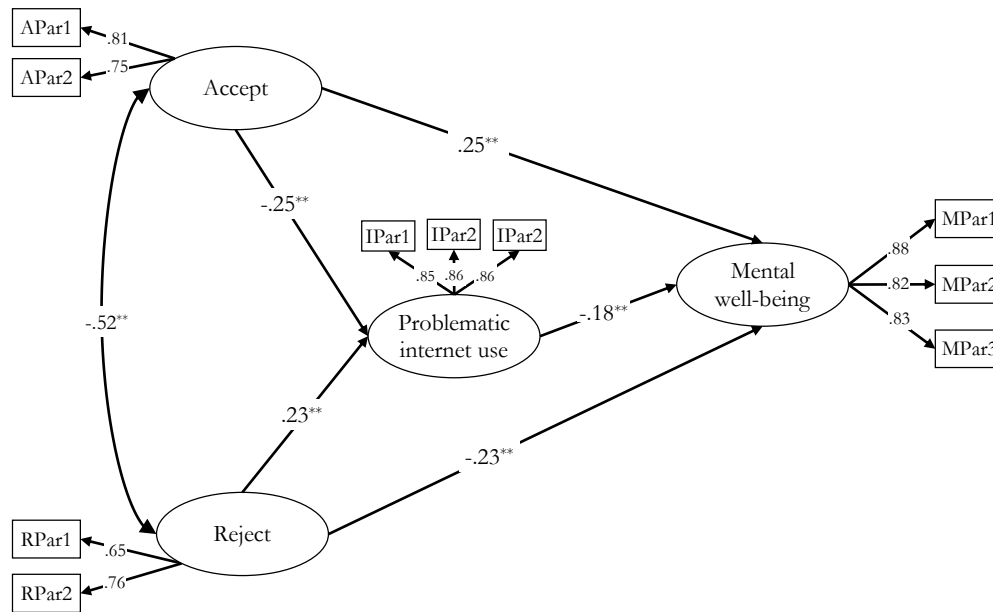


Figure 1. Standardized factor loading for the final structural model. Note.  $N = 373$ ; \*\*  $p < .01$

### Bootstrapping Procedure

With the aim of providing additional proof of whether the indirect effect was significant for prediction of mental well-being in mediation of general belongingness by problematic internet use among university students, the bootstrapping procedure with 10,000 resampling was completed. Findings are presented in Table 2.

As seen in Table 2, as the confidence intervals for the indirect path coefficients as a result of bootstrapping of direct paths did not include zero, they appear to be significant. Additionally, the path where problematic internet use mediated between accept and mental well-being was determined to be significant (bootstrap coeff = 0.044, 95%CI = 0.008, 0.109). Similarly, it was identified that problematic internet use mediated between reject and mental well-being (bootstrap coeff = -0.041, 95%CI = -0.096, -0.012).

**Table 2. Bootstrapping parameters for the final model**

Model pathways	Coefficient	95 % CI	
		Lower	Upper
Direct effect			
Accept → PiU	-.247	-.407	-.079
Accept → Mental well-being	.247	.056	.429
Reject → PiU	.229	.055	.397
Reject → Mental well-being	-.234	-.403	-.052
PiU → Mental well-being	-.179	-.311	-.039
Indirect effect			
Accept → PiU → Mental well-being	.044	.008	.109
Reject → PiU → Mental well-being	-.041	-.096	-.012

Note. *PiU* problematic internet use, *CI* confidence interval

## DISCUSSION, CONCLUSION AND SUGGESTIONS

Internet use appears to have gained increasing popularity in Turkey, as in the rest of the world. According to Turkish Statistical Institute, the internet use rates for individuals aged 16-74 years was 61.2% in 2016, 66.8% in 2017, 72.9% in 2018 and 75.3% in 2019. Again, according to the same data, in 2009 the internet use rates appeared to be 38.1%. In this context, the internet use rates in our country have shown nearly 100% increase in the last 10 years. The age interval with one of the most common internet use appears to be 94.8% use among individuals from 16-24 years. In light of this data, it can be said there are many missing pieces about internet research to understand how our present internet use shapes human nature and there is a need for new research. Based on this situation, a study was designed to investigate the mediating role of problematic internet use in the relationship between belongingness and mental well-being. When the findings in the study are examined, problematic internet use was found to have an indirect effect in the correlation between belongingness and mental well-being. These findings are discussed in detail.

In the research, there was a negative significant correlation between belongingness and problematic internet use and belongingness was found to significantly predict problematic internet use. When the relevant literature is examined, there was no research encountered investigating the correlation

between belongingness and problematic internet use. Although, there appear to be negative significant correlations between belongingness with loneliness and negative affect, and positive significant correlations with social connectedness, life satisfaction and positive affect (Duru, 2015). In this context, there appears to be negative correlations found in studies investigating the correlation between problematic internet use and social connectedness (McIntyre, Wiener, & Saliba; 2015). There appear to be positive correlations in studies investigating the correlation between problematic internet use and loneliness (Ceyhan & Ceyhan, 2008). The research findings can be said to overlap with the literature. Belongingness is a situation related to a person seeing themselves as a valued and important part of the environment they find themselves in. Individuals who do not see themselves as part of their environment; in others words, who have low levels of belongingness, are considered to attempt to find a place for themselves in the internet environment. Additionally, it is considered that these people may attempt to meet their need for belonging, which is not met in the real world, in the internet world.

In the research, it was found that a negative significant correlation between problematic internet use and mental well-being and problematic internet use significantly predicted mental well-being. Though there is no research dealing with the relationship between problematic internet use and mental well-being in the relevant literature, there are a variety of studies investigating problematic internet use with psychological and subjective well-being. When the studies (Caplan, 2003; Dađlı & Gündüz, 2017; Morahan-Martin & Schumacher, 2000; Whang, Lee, & Chang, 2003; Yılmaz, 2013) are examined, there appears to be negative significant correlations between problematic internet use and well-being. The results reached in this research can be said to coincide with results of other research. Problematic internet use is stated to be a multidimensional syndrome causing a range of functional disruptions in the daily lives of individuals and cognitive and behavioral symptoms leading to negative outcomes in social terms (Caplan, 2005). Additionally, due to individuals with problematic internet use choosing to spend their time on the internet they are considered to have less face-to-face interaction with individuals in their daily lives. As a result, over time, the relationships of these individuals with people in their daily lives will reduce and they may begin to feel lonely (Durak-Batıgün & Hasta, 2010). In this context, it can be said that the finding that individuals with problematic internet use have low mental well-being levels is an expected outcome.

Another finding obtained in the research is the positive significant correlation between belongingness and mental well-being and that belongingness significantly predicts mental well-being. Belonging can be said to be an important concept in terms of mental well-being because belongingness is accepted as being one of the foundation stones in mental terms for individuals (Ersanlı & Koçyiğit, 2013). Belongingness, stated to be a basic requirement by Maslow, is stated to involve an individual perceiving themselves as a part of their environment, being accepted by this environment and feeling they are secure and an important part of this environment (Alptekin, 2011). In this context, in light of the research findings, it can be said the individuals with high belongingness levels will have high mental well-being levels. In fact, when other researches (Akdoğan, 2017; Gök, 2019; Taylor, Chatters, Hardison & Riley, 2001; Yeter, 2019) in the relevant literature is examined, they appear to overlap with the findings obtained in this research.

In the structural equation model used in the research, it was concluded that problematic internet use partially mediated the correlation between belongingness and mental well-being. In other words, as the belongingness levels of university students increased, problematic internet use levels reduced and mental well-being levels increased. When the literature is examined, there is no other study which investigates the mediating role of problematic internet use in the relationship between belongingness and mental well-being dealt with in the scope of this research. Additionally, a study (Çetin Dağlı & Gündüz, 2017) investigating the mediating role of problematic internet use in the correlation between loneliness, with a negative correlation with belongingness, and well-being showed that problematic internet use had a partial mediating role between loneliness and well-being. Different studies (Çağır & Gürkan, 2010; Meral & Bahar, 2016) dealing with these three concepts found positive significant correlations between problematic internet use and loneliness and negative significant correlations between problematic internet use and well-being.

Belongingness is said to be a concept related to a person forming strong relationships with their surroundings, perceiving themselves to be an important part of their surroundings, and experiencing positive feelings like being liked and secure. Individuals experiencing this feelings and this situation in daily life are expected to have high mental well-being. However, if a person does not experience feelings related to belonging like loving, being liked and feeling secure

in daily life, and they do not see themselves as part of their surroundings, it is considered they may attempt to meet their need to belong on the internet and this may transform them into problematic internet users. Currently the internet provides opportunities for many virtual interactions such as users sharing things, receiving likes, accumulating followers, and making live broadcasts reaching many internet users etc. Thus, individuals who cannot meet their need to belong in daily life are considered to use the internet to meet this requirement in the virtual environment. The increasing use of the internet to meet their need to belong may cause a person to disconnect more from real life over time, weaken relationships in daily life, reduce interactions with their environment and linked to this cause a reduction in mental well-being.

It can be said that in order to resolve their belongingness needs, university students increasingly use the internet and as a result become more distant from their social surroundings. As a result of this, they enter a negative feedback cycle; in other words, university students who cannot fulfill their belongingness needs begin to use the internet problematically, and as they use the internet problematically their connections to their surroundings progressively weakens. The result of this situation is proposed to be that the mental well-being of these individuals, existing in a phase of isolation against proximity, will may fall.

### **Limitations and Recommendations**

There are some limitations to the research. The first is that as this research was completed with university students. Therefore the research results are limited to university students. In this context, there is a need to perform new research using the same research pattern with participation of individuals in different development periods to increase the generalizability of the research results. Additionally, the study data was collected using self-report-based scale tools. As a result, new research may be performed using different methods to increase the scientific knowledge about the topic gained in the research. As the university students in Generation Z are in this development stage and have grown up with the internet, explaining the correlations between their belongingness perceptions, internet use and mental well-being is considered to contribute to the mental health literature.

**About Authors / Yazarlar Hakkında**

**Begüm Satıcı**, PhD, is an assistant professor of Psychological Counseling and Guidance at Artvin Coruh University. She received her MS in Psychological Counseling and Guidance from Anadolu University. She earned her PhD in Psychological Counseling and Guidance from Yıldız Technical University. Her primary research interests include relationship satisfaction, behavioral addictions, and educational-social-positive psychology concepts.

Begüm Satıcı Artvin Çoruh Üniversitesi Rehberlik ve Psikolojik Danışmanlık anabilim dalında doktor öğretim üyesi olarak çalışmaktadır. Yüksek lisansını rehberlik ve psikolojik danışmanlık alanından Anadolu Üniversitesinden doktora'sını aynı alandan Yıldız Teknik Üniversitesinden elde etmiştir. Çalışma konularında ilişki doyumu, davranışsal bağımlılıklar ve eğitim-sosyal-pozitif psikoloji kavramları yer almaktadır.

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Muhammet Fatih Yılmaz Erzincan Binali Yıldırım Üniversitesi Rehberlik ve Psikolojik Danışmanlık anabilim dalında doktor öğretim üyesi olarak çalışmaktadır. Yüksek lisans ve Doktora'sını rehberlik ve psikolojik danışmanlık alanında Anadolu Üniversitesinden elde etmiştir. Çalışma konularında internet kullanımı, kişilik özellikleri ve pozitif psikoloji kavramları yer almaktadır.

**Author Contributions / Yazar Katkıları**

**Study designing:** BS & MFY; **Study plan validation:** BS & MFY; **Data collection:** BS & MFY; **Data analysis:** BS; **Data interpretation:** BS & MFY; **Final approval:** BS & MFY.

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**Conflict of Interest/ Çıkar Çatışması**

It has been reported by the authors that there is no conflict of interest.

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## REFERENCES

- Adler, A. (1964). *Social interest: A challenge to mankind*. New York: Capricorn books.
- Alptekin, D. (2011). *Toplumsal aidiyet ve gençlik: Üniversite gençliğinin aidiyeti üzerine sosyolojik bir araştırma* (Unpublished doctoral dissertation), Selçuk Üniversitesi, Sosyal Bilimleri Enstitüsü, Konya.
- Çağır, G., & Gürkan, U. (2010). The relationship between the levels of high school and university students' problematic use of internet and their perceived wellness and loneliness levels. *Balikesir University Journal of Social Sciences Institute*, 13, 75-85.
- Caplan, S. E. (2005). A social skill account of problematic internet use. *Journal of Communication*, 55, 721-736.
- Carlsson, F., Lampi, E., Li, W., & Martinsson, P. (2014). Subjective well-being among preadolescents and their parents—Evidence of intergenerational transmission of well-being from urban China. *The Journal of Socio-Economics*, 48, 11-18.
- Çetin Dağlı, M., & Gündüz, B. (2017). Üniversite öğrencilerinde yalnızlık ve psikolojik iyi oluş ilişkisinde problemlerli internet kullanımının aracı rolü. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 44, 339-357.
- Ceyhan, A. A., & Ceyhan, E. (2008). Loneliness, depression, and computer self-efficacy as predictors of problematic internet use. *CyberPsychology & Behavior*, 11(6), 699-701.
- Chen, X., Li, F. H., & Long, L. L. (2007). Prospective study on the relationship between social support and internet addiction. *Chinese Mental Health Journal*, 21(4), 240-243.
- Demirtaş, A. S., Baytemir, K., & Güllü, A. (2018). Pedagojik formasyon öğrencilerinde umut ve mental iyi oluş: Yapılandırmacı düşünmenin aracı rolü. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 14(1), 317-331.
- Diener, E. (2009). Subjective well-being. In *The science of well-being* (pp. 11-58). Springer, Dordrecht.
- Duru, E. (2015). Genel Aidiyet Ölçeğinin psikometrik özellikleri: Geçerlik ve güvenilirlik çalışması. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 5(44), 37-47.
- George, D., & Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference, 17.0 update* (10 ed.) Boston: Pearson.
- Glasser, W. (1999). *Choice theory: A new psychology of personal freedom*. Harper Perennial.
- Gök, E., & Kocayörük, E. (2019). Temel psikolojik ihtiyaçlar, aile aidiyeti ve ebeveyn algısı değişkenlerinin öznel iyi oluş üzerindeki etkisi. *Aile Psikolojik Danışmanlığı Dergisi*, 2(2), 21-51.
- Goldberg, I. (1996). Goldberg's message. Retrieved 05 December 2019 <http://users.rider.edu/~suler/psycyber/supportgp.html>
- Gönener, A., Öztürk, A., & Yılmaz, O. (2017). Kocaeli Üniversitesi Spor Bilimleri Fakültesi öğrencilerinin mental (psikolojik) iyi olma düzeylerinin mutluluk düzeylerine etkisi. *Sportif Bakış: Spor ve Eğitim Bilimleri Dergisi*, 4(1), 44-55.
- Hietalahti, M., Rantanen, J., & Kokko, K. (2016). Do life goals mediate the link between personality traits and mental well-being. *The Journal of Happiness & Well-Being*, 4(1), 72-89.

- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Kaya, Ö. S. (2018). Romantik ilişkilerde problem çözme becerilerinin empati ve mental iyi oluş açısından incelenmesi. *Journal of Higher Education & Science/Yükseköğretim ve Bilim Dergisi*, 8(1).
- Keldal, G. (2015). Warwick-Edinburgh Mental İyi Oluş Ölçeği'nin türkçe formu: Geçerlik ve güvenilirlik çalışması. *The Journal of Happiness & Well-Being*, 3(1), 103-115.
- Keser-Özcan, N. ve Buzlu S. (2007). Internet use and its relation with the psychosocial situation for a sample of university students. *Cyberpsychology and Behaviour*, 10, 6-9.
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of health and social behavior*, 207-222.
- Kutlu, M., Savcı, M., Demir, Y., & Aysan, F. (2016). Turkish adaptation of Young's Internet Addiction Test-Short Form: a reliability and validity study on university students and adolescents. *Anatolian Journal of Psychiatry*, 17, 69-76.
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological methods*, 1(2), 130-149.
- Malone, G. P., Pillow, D. R., & Osman, A. (2012). The general belongingness scale (GBS): Assessing achieved belongingness. *Personality and Individual Differences*, 52(3), 311-316.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.
- Mavili, P., Kesen, Ö., & Daşbaşı, Ö. (2014). Aile Aidiyeti Ölçeği: Bir ölçek geliştirme çalışması. *Sosyal Politika Çalışmaları Dergisi*, 14(33),29-45.
- McIntyre, E., Wiener, K., K., & Saliba, A., J. (2015). Compulsive Internet use and relations between social connectedness, and introversion. *Computers in Human Behavior*, 48, 569-574.
- Mellor, D., Stokes, M., Firth, L., Hayashi, Y., & Cummins, R. (2008). Need for belonging, relationship satisfaction, loneliness, and life satisfaction. *Personality and individual differences*, 45(3), 213-218.
- Meral, D., & Bahar, H. H. (2016). Ortaöğretim öğrencilerinde problemlı internet kullanımının yalnızlık ve psikolojik iyi oluş ile ilişkisinin incelenmesi. *Erzincan University Journal of Education Faculty*, 18(2), 1117-1134.
- Nasser-Abu Alhija, F., & Wisenbaker, J. (2006). A Monte Carlo study investigating the impact of item parceling strategies on parameter estimates and their standard errors in CFA. *Structural Equation Modeling*, 13(2), 204-228.
- Nunnally, J. C. & Bernstein, I. H. (1994). Psychometric theory, 3rd ed. New York: McGraw Hill, Inc.
- Oktan, V. (2015). Problematic internet use, loneliness and perceived social support among university students. *Kastamonu Education Journal*, 23(1), 281-292.
- Robbins, S. B., & Kliewer, W. L. (2000). Advances in theory and research on subjective well-being. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (p. 310-345). John Wiley & Sons Inc.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of personality and social psychology*, 57(6), 1069.

- Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological inquiry*, 9(1), 1-28.
- Ryff, C. D., & Singer, B. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of happiness studies*, 9(1), 13-39.
- Satici, S. A., & Gocet-Tekin, E. (2016). Psychometric properties of the general belongingness scale in Turkish youth. *Current Psychology*, 35(4), 625-631.
- Savcı, M., & Aysan, F. (2017). Teknolojik bağımlılıklar ve sosyal bağlılık: İnternet bağımlılığı, sosyal medya bağımlılığı, dijital oyun bağımlılığı ve akıllı telefon bağımlılığının sosyal bağımlılığı yordayıcı etkisi. *Düşünen Adam*, 30(3), 202-216.
- Sawyer, M. G., Arney, F. M., Baghurst, P. A., Clark, J. J., Graetz, B. W., Kosky, R. J., ... & Rey, J. M. (2001). The mental health of young people in Australia: key findings from the child and adolescent component of the national survey of mental health and well-being. *Australian and New Zealand Journal of Psychiatry*, 35(6), 806-814.
- Seligman, M. (2018). PERMA and the building blocks of well-being. *The Journal of Positive Psychology*, 13(4), 333-335.
- Shapira, N. A., Lessig, M. C., Goldsmith, T. D., Szabo, S. T., Lazoritz, M., Gold, M. S., & Stein, D. J. (2003). Problematic internet use: proposed classification and diagnostic criteria. *Depression and Anxiety*, 17, 207-216.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, 5(1), 50-63.
- Turkish Statistical Institute (2019). Hane halkı bilişim teknolojileri kullanım araştırması. Retrieved from [http://www.tuik.gov.tr/PreTablo.do?alt\\_id=1028](http://www.tuik.gov.tr/PreTablo.do?alt_id=1028)
- World Health Organisation. (2004). *Promoting Mental Health; Concepts Emerging Evidence and Practice* (Summary report). Geneva.
- Yeter, S. İ. (2019). *Üniversite öğrencilerinin mutluluk düzeylerinin aile aidiyeti ve manevi yönelimlerine göre jordanması*. (Unpublished master's thesis). Marmara Üniversitesi, Eğitim Bilimleri Enstitüsü.
- Yılmaz, M. F. (2013). *Üniversite öğrencilerinin psikolojik iyi oluşlarının problemlü internet kullanımı ve bazı demografik değişkenler açısından incelenmesi* (Unpublished master's thesis). Anadolu Üniversitesi, Eğitim Bilimleri Enstitüsü.
- Young, K. S. (1996). Internet addiction; the emergence of new clinical disorder. *CyberPsychology & Behavior*, 1, 237-244.
- Young, K. S. (1998). *Caught in the net: How to recognize the signs of internet addiction--and a winning strategy for recovery*. John Wiley & Sons.

### Ethical Statement

This research was completed in line with the Helsinki Declaration. In line with this, the study was investigated and permitted by Artvin Coruh University Scientific Research and Ethical Review Board. Additionally, data tools in the study were only distributed to volunteer participants. All participants provided informed consent. Additionally, participants were informed that they could withdraw from the study at any time during data collection.

**Ethics Committee Name:** Artvin Coruh University Scientific Research and Ethical Review Board.

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