

The serial mediation role of mindfulness and regret elements between social connectedness and mental well-being
Bilinçli farkındalık ve pişmanlık unsurlarının sosyal bağlılık ve mental iyi oluş arasındaki seri aracılık rolü

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ABSTRACT: Humans require a sense of belonging in order to function socially. In this context, consider the concept of social connectedness. Individuals feel better when they know they are not alone and are understood through social connections. Individuals must maintain a high level of well-being in order to function and cope with life's challenges. Mindfulness is beneficial in the context of psychological functioning, and negative emotions such as regret can have a significant impact on overall wellbeing. From this perspective, the current study aimed to investigate the role of mindfulness and regret as mediators in the relationship between social connectedness and mental well-being. This is the first study to investigate the relationships between these variables. Data were gathered through the voluntary participation of 84 male and 292 female university students. The mediation analysis was performed using structural equation modelling (SEM). The research discovered that mindfulness and regret served as serial mediators of social connectedness and mental well-being. According to the model, social connectedness promotes mental health and mindfulness while reducing regret. Individuals who are socially connected are mindful and do not have regrets, so we can be optimistic about their mental health and the benefits it brings to them.

Keywords: Social connectedness, Mindfulness, Regret elements, Mental well-being

ÖZ: İnsanlar sosyal olarak işlev görebilmek için bir aidiyet duygusuna ihtiyaç duyarlar. Bu bağlamda, sosyal bağlılık kavramını ele alabiliriz. Bireyler yalnız olmadıklarını ve sosyal bağlar aracılığıyla anlaşıldıklarını bildiklerinde kendilerini daha iyi hissederler. Bireylerin işlevlerini yerine getirebilmeleri ve hayatın zorluklarıyla baş edebilmeleri için yüksek düzeyde iyi oluşu sürdürmeleri gerekir. Bilinçli farkındalık psikolojik işlevsellik açısından faydalıdır ve pişmanlık gibi olumsuz duygular genel iyi oluş üzerinde önemli bir etkiye sahip olabilir. Bu bakış açısıyla, mevcut çalışma sosyal bağlılık ve mental iyi oluş arasındaki ilişkide bilinçli farkındalık ve pişmanlığın aracı rolünü araştırmayı amaçlamıştır. Bu çalışma, bu değişkenler arasındaki ilişkileri araştıran ilk çalışmadır. Veriler 84 erkek ve 292 kadın üniversite öğrencisinin gönüllü katılımıyla toplanmıştır. Aracılık analizi yapısal eşitlik modellemesi (YEM) kullanılarak gerçekleştirilmiştir. Araştırma, bilinçli farkındalık ve pişmanlığın, sosyal bağlılık ve zihinsel iyi oluşun seri aracılığı olarak hizmet ettiğini ortaya koymuştur. Modele göre, sosyal bağlılık pişmanlığı azaltmanın yanı sıra ruh sağlığını ve farkındalığı da desteklemektedir. Sosyal olarak bağlı olan bireyler farkındalık sahibidir ve pişmanlık duymazlar, bu nedenle zihinsel sağlıkları ve bunun onlara getirdiği faydalar konusunda bu konuda umutlu olabiliriz.

Anahtar Kelimeler: Sosyal bağlılık, Bilinçli farkındalık, Pişmanlık unsurları, Mental iyi-oluş

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GENİŞLETİLMİŞ ÖZET

Literatür taraması

İnsanların sosyal faaliyetlere katılma, ilişki kurma ve sosyal bağlar kurmaya ihtiyaç duyduğu önemli bir gerçektir (Baumeister ve Leary, 1995). Robbins'e (1995) göre kendini bağlı hissetmekte zorlanan bir kişi kendini diğer insanlardan farklı ve uzak görmeye başlar, sosyal rolleri ve sorumlulukları kabul etmekte zorlanabilir ve bu da kişiyi daha fazla izolasyona sürükleyebilir. Devamında kişi başkalarıyla ilişki kurmaya çalışır ancak başkalarının onu anlamaması nedeniyle hayal kırıklığına uğrayarak daha gerçekçi rolleri ve ilişkileri reddedip ait olduğu bir yer bulma hayalleri kurmaya başlayabilir. Sosyal bağlılık, bireyin sosyal ilişkilerinde aidiyet, bağlılık, ilişkisellik, birliktelik veya kenetlenme deneyimleme derecesini ifade etmektedir (Santini vd., 2015). İnsanların bağlılık hissettiği toplumların daha yüksek refah, sağlık ve iyi oluş düzeylerine sahip olduğu görülmüştür (Helliwell ve Putnam, 2004). Zira sosyal kabul ve social connectedness kavramları well being'i pozitif yönde yordayan önemli iki kavramdır (Arslan, 2017). İyi oluş, bireyin kendi yeteneklerinin farkında olduğu, yaşamın normal stresleriyle başa çıkabildiği, üretken ve verimli bir şekilde çalışabildiği ve toplumuna katkıda bulunabildiği bir durum olarak tanımlanmaktadır (World Health Organisation, 2022). İyi oluş, sağlık ve sosyal işlevselliğin birçok yönüyle bağlantılı olması yönünden önem arz etmektedir (Keyes vd., 2010; Wood vd., 2010). Bu nedenle daha iyi anlaşılması ve farklı konseptler kapsamında incelenmesi gereken bir kavramdır. Mental sağlığın önemli göstergelerinden biri olarak bilinçli farkındalık, şu anda olup bitenlere karşı dikkatli olma ve bunların farkında olma durumunu ifade etmektedir (Brown ve Ryan, 2003). Bireyler için sosyal anlamda kendilerini bağlı hissetmeleri ve içinde bulundukları anın farkında olmaları onların iyi oluşu için olumlu göstergeler olduğu anlaşılmaktadır. Bireyin duyguları da iyi oluş kapsamında değerlendirilmeye uygundur.

Olumsuz mental sağlık semptomlarıyla ilişkili kavramlardan biri pişmanlıktır (Roese vd., 2009). Bireyin önceden vermiş olduğu kararın farklı bir karar olsaydı daha iyi bir halde olacağına inandığında yaşadığı olumsuz duyguya pişmanlık denmektedir (Pieters ve Zeelenberg, 2007). Pişmanlık ve iyi oluşun negatif yönde ilişkili olduğunu bilinmektedir (Xu vd., 2021). Gelecekte pişmanlık yaşama ihtimali için koruyucu bir faktörün ise sosyal bağlılık olduğu düşünülmektedir (Cusatis vd., 2020). Literatürdeki değerli bilgiler kapsamında mental sağlık ve iyi oluşun bireyin yaşamındaki önemli konumu anlaşılmaktadır. İyi oluşun insan hayatında daha fazla yaşanan bir deneyim olması istenmektedir. Zaman zaman bireyler aldıkları kararlardan pişmanlık duymaktadırlar. Bu durumun iyi oluş ve sosyal bağlılık hissi ile ilişkisinin incelenmesinin ilgili literatür taraması kapsamında değerli olduğu görülmüştür. Bununla birlikte sosyal bağlılığın iyi oluşla yakından ilişkili olduğu ve yine sosyal bir canlı olan insanlar için ihtiyaç niteliğinde bir kavram olduğu anlaşılmıştır. Ek olarak bireyin içinde bulunduğu ana yönelik farkındalığını temsilen kullanılan bilinçli farkındalık kavramı da bahsedilen diğer kavramlarla ilişkili ve çeşitli müdahale şekillerinde insan hayatında olumlu sonuçlara yol açabilme potansiyeline sahiptir. Sonuç olarak mevcut araştırma kapsamında üniversite öğrencilerinin bilinçli farkındalık, pişmanlık, sosyal bağlılık, mental iyi oluş düzeyleri arasındaki ilişkiyi ortaya koymak amaçlanmıştır.

Yöntem

Araştırmaya 84 erkek (%22.3) ve 292 kadın (%77.7) olmak üzere 376 üniversite öğrencisi katılmıştır. Veriler çevrimiçi yolla ve sosyal medyada duyurularak toplanmıştır. Veri toplama araçları olarak Warwick-Edinburgh Mental İyi Oluş Ölçeği, Bilinçli Farkındalık Ölçeği, Pişmanlık Unsurları Ölçeği ve Sosyal Bağlılık Ölçeği kullanılmıştır.

Araştırma analizleri yapılırken normallik analizi, betimsel istatistikler, güvenilirlik analizi ve korelasyon analizi gerçekleştirilmiştir. Anlamlı analiz sonuçları sonrasında Yapısal Eşitlik Modellemesi (YEM) geçilmiştir. YEM birden fazla parametreye göre karar verme imkanı sunduğundan dolayı oldukça güçlü bir nicel analiz yöntemi olarak belirtilmektedir (Kline, 2011). Çalışmada Kline'in (2011) önerileri doğrultusunda iki aşamalı YEM kullanılmıştır. İlk aşamada gösterge değişkenlerin gizil değişkenleri oluşturmasıyla ve bu oluşan gizil değişkenlerin birbirleriyle olan ilişkilerini ele alan ölçme modelinin doğrulanıp doğrulanmadığı test edilmiştir. Ölçme modelinin doğrulanmasının ardından hipotetik olarak ortaya konulan yapısal modelin test edilmesine geçilmiştir. YEM'in sonuçlarını değerlendirebilmek için Hu ve Bentler (1999) tarafından tavsiye edilen uyum iyiliği indeksleri ele alınmıştır. YEM'de birden

fazla modelden hangisinin en iyi model olarak nitelendirilip seçilmesi için kay-kare fark testinin yanı sıra, AIC ve ECVI değerleri incelenmiştir.

Bulgular ve tartışma

Kültür, duygusal ifadeyi, sosyal destek sistemlerini ve başa çıkma stratejilerini etkileyerek iyi oluş algılarını önemli ölçüde şekillendirir ve nihayetinde bireyin mental iyi oluşunu etkiler (Gautam vd., 2024). Bu nedenle mental iyi oluşun bireyin sosyo-kültürel bağlamı içinde yorumlanması gerektiği düşünülebilir. Mental iyi oluşun sosyal kapsamı içerisine sosyal bağlılık hissini yerleştirmek ve bu ikili arasındaki ilişkileri incelemeye ek olarak bilinçli farkındalık ve pişmanlık gibi diğer kavramların da oynadıkları rolü ele almak önem arz etmektedir. Dolayısıyla mevcut araştırmada sosyal bağlılık ve mental iyi oluş kavramları arasında bilinçli farkındalık ve pişmanlığın aracı rolünün incelenmiştir. Yapılan analizlerin sonucunda sosyal bağlılık ve mental iyi oluş arasında bilinçli farkındalık ve pişmanlığın seri aracı rolü ortaya çıkmıştır. Mevcut araştırma için kurulan hipotezler ve elde edilen bulgular ilgili literatür kapsamında tartışılmıştır.

Sonuç ve öneriler

Araştırma sonucuna göre söyleyişle sosyal bağlılık hem doğrudan hem de bilinçli farkındalık ve pişmanlık dolayısıyla mental iyi oluşu yordamaktadır. Bireylerin yüksek düzeyde sosyal bağlılık hissetmesi, bilinçli farkındalığın desteklenmesine ve pişmanlık duygusunun hafiflemesine dolayısıyla mental iyi oluşun artmasına katkı sağlayabilecek bir değişken olduğu ortaya konmuştur. Literatüre bakıldığında sosyal bağlılık, mental iyi oluş, bilinçli farkındalık ve pişmanlık kavramları arasındaki ilişkiyi açıklayan niceliksel bir model durumundadır. Sosyal dünyaya bağlı hissetmek bireyler için bir ihtiyaç özelliği taşıyıp farkındalıklı olmalarını destekleyebilir. Ek olarak pişmanlık duygusunun daha az yaşanmasına işaret edebilir. Dolayısıyla mental iyi oluş düzeyine olumlu manada katkı sağlayabildiği söylenebilir.

Introduction

It is critical that people participate in social activities, build relationships, and form bonds. According to research, loneliness and social isolation are detrimental to both physical and mental health. Loneliness and social isolation are associated with an increased risk of depression, cognitive decline, heart disease, stroke, and premature death (Chen & Feely, 2014; Holt-Lunstad et al., 2015; Valtorta et al., 2016). According to Lee and Robbins (1995), a person who struggles to feel connected begins to perceive himself or herself as different and distant from others and may struggle to accept social roles and responsibilities, leading to further isolation. As a result, the individual may try to connect with others but, frustrated by their lack of understanding, reject more realistic roles and relationships in favor of fantasizing about finding a place to belong. In the worst-case scenario, the person may withdraw from society and lead a lonely life (Lee and Robbins, 1995). Social connectedness, as a self-aspect, reflects subjective awareness of interpersonal closeness and is an important component of one's sense of belonging (Lee and Robbins, 2000). Another definition of social connectedness is a person's sense of belonging, connectedness, relationality, togetherness, or cohesion in social relationships (Santini et al. 2015). Kohut's self-psychology theory states that a sense of social connectedness emerges early in life and lasts throughout (Baker & Baker, 1987). People who are highly connected are more likely to feel close to others, easily identify with them, perceive others as friendly and approachable, and participate in social groups and activities (Lee et al., 2001). According to Baker and Baker (1987), these adults are more tolerant and respectful of interpersonal differences and temporary loss of belonging because an underlying sense of connectedness brings people together. People who are not socially connected frequently experience loneliness, anxiety, jealousy, anger, depression, low self-esteem, and a variety of other negative emotions (Baumeister & Leary, 1995). Researchers have also reported that these people frequently experience interpersonal distance, perceive themselves as strangers, are misunderstood by others, struggle to relate to the social world, and are uncomfortable in social situations (Lee et al., 2001). According to the same researchers, these people can form relationships with others but still feel disconnected from themselves, limiting their ability to interact with the larger social world. Strongly connected societies and communities have been linked to increased prosperity, health, and well-being (Helliwell & Putnam, 2004). Social acceptance and social connectedness are two important concepts that positively predict well-being (Arslan, 2017). It is claimed that being connected to one's parents (Conner et al., 2016), school (Resnick et al., 1997), teachers (Golaszewski et al., 2018), and peers (Rawlings & Stoddard, 2017) is positively related to wellbeing. Ryan and Deci (2001) define mental well-being as the subjective experience of happiness, life satisfaction, and positive psychological functioning (which includes good relationships with others, self-actualization, autonomy, self-acceptance, and competence). According to the World Health Organization, mental well-being is a state in which an individual is aware of his or her own abilities, can cope with life's normal stresses, works productively and efficiently, and contributes to society. A longitudinal study discovered that a sense of global connectedness with family, school, peers, and the environment predicts well-being (Jose et al., 2012).

Well-being is significant because it influences numerous aspects of health and social functioning (Keyes et al., 2010; Wood and Joseph, 2010). As a result, it is a concept that necessitates further investigation and analysis in light of other concepts. A study discovered that participants who reported high levels of well-being also reported high levels of mindfulness, and that mindfulness positively predicted well-being (Haver et al., 2015; Howell et al., 2008; Zollars et al., 2019). In other words, both mindfulness and social connectedness are associated with increased well-being. Mindfulness, an important indicator of mental health, refers to the state of being mindful and aware of what is happening in the present moment (Brown & Ryan, 2003). Mindfulness practices have been shown to improve communication, interpersonal relationships, the workplace environment, and work-life quality (Good et al. 2016). Researchers have shown that mindfulness practices can reduce interpersonal problems while also improving stress and emotion regulation skills (Gouda et al., 2016; Luong et al., 2019). Mindfulness-based programs have been shown to improve social connectedness and reduce loneliness in people (Cohen and Miller, 2009; Teoh et al., 2021). One study found that social connectedness and self-esteem mediate the link between mindfulness and well-being. For these reasons, it seems critical to incorporate mindfulness into daily activities and interactions (Brown & Ryan, 2003).

Individuals' well-being is positively correlated with their sense of social connection and awareness of the present moment. An individual's emotions can also be evaluated as part of their overall well-being. Regret is a concept associated with negative mental health symptoms (Roese et al., 2009). Regret is the negative emotion experienced by an individual when he or she believes that he or she would have been in a better situation if the previous decision had been different (Pieters & Zeelenberg, 2007). Individuals who experience regret are concerned about being unable to change the past (Ermiş & Bayraktar, 2021). Regret is known to be linked to depression and anxiety (Roese et al., 2009). Furthermore, Xu et al. (2021) found a negative relationship between regret and well-being. Social connectedness is thought to reduce the likelihood of future regret (Cusatis et al., 2020). As can be seen, regret, like mindfulness, is a concept associated with both well-being and social connection.

The importance of mental health and well-being in an individual's life is recognized within the context of valuable information in the literature. Well-being is desired to be a more tangible experience in human life. People sometimes regret their decisions. Examining the relationship between this situation and their sense of well-being and social connectedness was also found to be useful in the context of the related literature review. Furthermore, it has been recognized that social connectedness is closely related to well-being and is an essential concept for people who are social creatures. Furthermore, the concept of mindfulness, which refers to an individual's awareness of the present moment, is related to the other concepts mentioned and has the potential to have a positive impact on human life through various forms of intervention. As a result, the hypotheses to be tested in the current study were determined within this context.

H1. There is a positive relationship between social connectedness and mental well-being.

H2. There is a mediating role of mindfulness between social connectedness and mental well-being.

H3. There is a mediating role of regret elements between social connectedness and mental well-being.

H4. There is a serial mediation role of mindfulness and regret elements between social connectedness and mental well-being.

Methodology

Participants and procedure

The study included 376 university students, with 84 men (22.3%) and 292 women (77.7%). Data were collected online and via social media announcements. The study only included voluntary participants, and they were asked to carefully read the informed consent in the scale sets. This study has been approved by the Human Research Ethics Committee of Zonguldak Bülent Ecevit University with 446568-13.05.2024 number and date.

Measures

Warwick-Edinburgh Mental Well-being Scale Short Form. Tennant et al. (2007) devised a scale to evaluate the mental health of adults. Demirtaş and Baytemir (2019) translated the scale into Turkish. The Cronbach's alpha coefficients were determined to be 0.84 and 0.86. The fit values of the scale were satisfactory ($\chi^2/df = 1.58$; $p < .05$; RMSEA = 0.06; SRMR = 0.04; NFI = 0.97; CFI = .99; GFI = .96; AGFI = .91). The Likert scale comprises seven items, each of which contains a positive statement. The scale ranges from one (never) to five (always).

Mindful Attention Awareness Scale. This instrument was developed by Brown and Ryan (2003) to evaluate the mindfulness levels of an adult sample. An adaptation study of this measurement tool in Turkish was conducted by Özyeşil et al. (2011). It is a scale that is both valid and dependable for evaluating mindfulness levels and can be implemented within Turkish culture. The internal consistency coefficient of Cronbach's alpha for the Turkish version is 0.80. The scale comprises 15 items and exhibits a single dimension. The fit values were calculated as RMSEA = .06, SRMR = .06, GFI = .93, and AGFI = .91, suggesting that the scale had a good fit. The response options are a six-point Likert scale, with 1 representing "almost always," 2 representing "most of the time," 3 representing "sometimes," 4

representing "rarely," 5 representing "very rarely," and 6 representing "almost never." The scale permits scores of 15 and 90, respectively.

Regret Elements Scale. This methodology was specifically designed for adult samples by Buchanan et al. (2016). A Turkish cultural adaptation was implemented by Aktu (2023). The reliability coefficient of this scale was 0.92, as determined by Cronbach's alpha. The scale comprises ten items, with two of them, each consisting of five items, evaluating the cognitive and affective dimensions. Satisfactory fit indices were determined for the scale ($\chi^2/df = 2.09$, RMSEA = .043, SRMR = .07, NNFI/TLI = .91, CFI = .94, GFI = .92). The response options are arranged on a 7-point Likert scale, with "strongly agree" (7) and "strongly disagree" (1). The scale generates scores that vary from 10 to 70. It is evident that individuals experience a more profound sense of regret as their scale scores increase.

Social Connectedness Scale. The scale was developed by Lee and Robbins (1995), translated into Turkish by Duru (2007), and administered to adults to evaluate their social connectedness. The scale's internal consistency coefficient was determined to be 0.90. With a 6-point Likert scale (1 = strongly agree, 2 = mostly agree, 3 = agree, 4 = disagree, 5 = mostly disagree, 6 = strongly disagree), the scale consists of eight items and one dimension. The scale permits a minimum score of 8 and a maximum score of 48. Individuals who achieve higher scores on the scale report lower levels of social connectedness.

Data analysis

The study sought to establish a link between university students' mindfulness, regret, social connectedness, and mental well-being levels. The research included normality, descriptive statistics, reliability, and correlation analysis. Following significant analysis results, Structural Equation Modeling (SEM) was employed. SEM is described as a very powerful quantitative analysis method because it allows for decision-making based on multiple parameters (Kline, 2011). The study followed Kline's (2011) recommendations for a two-stage SEM. The first stage was to determine the validity of the measurement model, which dealt with the relationship between indicator variables and latent variables, as well as the relationships between these latent variables. After the measurement model had been validated, the hypothetical structural model was evaluated. Hu and Bentler's (1999) goodness-of-fit indices were used to assess the SEM results. In addition to chi-square (χ^2) and degrees of freedom, GFI, RFI, CFI, NFI, IFI, TLI, SRMR, and RMSEA were calculated. The critical values are a χ^2 to degrees of freedom ratio of less than 5, GFI, RFI, CFI, NFI, IFI, and TLI values above .90, and SRMR and RMSEA values below .08. (Hu and Bentler, 1999; Tabachnick and Fidell, 2001). In contrast, AIC and ECVI values were used in conjunction with the chi-squared difference test to select the best model from among multiple models in SEM. The model with the lowest AIC and ECVI values is considered the best (Akaike 1987; Browne and Cudeck 1993).

Because the measurement tools for mindfulness, social connectedness, and mental well-being were one-dimensional, the item parceling method was employed in SEM. The parceling method, which is used in personality trait concepts, reduces the number of observed variables, improves reliability, and allows scales to have a normal distribution (Nasser-Abu Alhija and Wisenbaker, 2006). Parceling generated two dimensions: mindfulness, social connectedness, and mental well-being.

Results

This section begins by presenting the findings of correlation analysis and descriptive statistics. The results of both the measurement and structural models are then shown.

Table 1. Descriptive statistics and reliabilities for the study variables

	N	Mean	SD	Skewness	Kurtosis	McDonald's ω	Cronbach's α	Guttman's λ_6	1	2	3
1-Mindfulness	376	59.59	11.2	-.220	.118	.883	.844	.857	-		
2-Regret elements	376	36.30	15.3	.330	-.609	.936	.938	.959	-.49**	-	
3-Social connectedness	376	35.78	9.95	-.700	-.391	.932	.930	.931	.53**	-.48**	-
4-Mental well-being	376	23.89	5.52	-.309	-.026	.874	.870	.859	.23**	-.40**	.43**

** $p < .001$

Table 1 shows the variables' correlation and descriptive statistics (arithmetic mean, standard deviation, skewness, and kurtosis). Table 1 demonstrates that the variables' skewness (between $-.700$ and $.330$) and kurtosis (between $-.609$ and $.118$) values meet Finney and DiStefano's (2006) normality criteria of ± 2 and ± 7 , respectively.

As seen in Table 1, social connectedness has a significant positive relationship with mindfulness ($r = .53$ $p < .001$) and mental well-being ($r = .43$ $p < .001$) and mindfulness has a significant positive relationship with mental well-being ($r = .23$ $p < .001$). However, there are significant negative relationships between regret elements and mindfulness ($r = -.49$ $p < .001$), social connectedness ($r = -.48$ $p < .001$), and mental well-being ($r = -.40$ $p < .001$).

After the relationships between the concepts were discovered to be significant, the measurement model was developed. In the measurement model, there are four latent variables: mindfulness, regret elements, social connectedness, and mental well-being, with a total of nine observed variables associated with each. Table 2 shows the fit values based on the results. The fit values can be stated as good. It is also understood that factor loadings range between $.70$ and $.97$. As a result, the observed values can be interpreted as representing the latent variables.

The structural model examined whether mindfulness and regret elements fully mediate the relationship between social connectedness and mental well-being. In the fully mediated model, there is no direct relationship between social connectedness and mental well-being, but social connectedness does predict mental well-being through mindfulness and regret elements. Table 2 shows the model's fit values, which include mindfulness and regret as full mediators. The best mediation model was found by testing a model with partial mediation of mindfulness and regret components. The partial mediation model demonstrates a direct relationship between social connectedness and mental well-being, as well as mediation through mindfulness and regret. The fit values for the test results are presented in Table 2.

Table 2. SEM Fit Indices

	N	CMIN	DF	CMIN/DF	GFI	NFI	RFI	IFI	TLI	CFI	RMSEA	SRMR	AIC	ECVI
Measure	376	44.239	21	2.107	.975	.979	.964	.989	.981	.989	.05	.02	-	-
Partial Mediator Model	376	44.239	21	2.107	.975	.979	.964	.989	.981	.989	.05	.02	92.239	.246
Full Mediator Model	376	76.285	22	3.467	.957	.964	.941	.974	.957	.974	.08	.04	122.285	.326

** $p < .001$

However, the full mediation model cannot be applied because the path is insignificant. As a result, a partial mediation model was used in the study. Because the full mediation model was not significant, the AIC and ECVI values from the chi-square difference test were not investigated. Among all of these findings, the model in which mindfulness and regret partially mediate the relationship between social connectedness and mental well-being was preferred. The path coefficients for this model are illustrated in Figure 1.

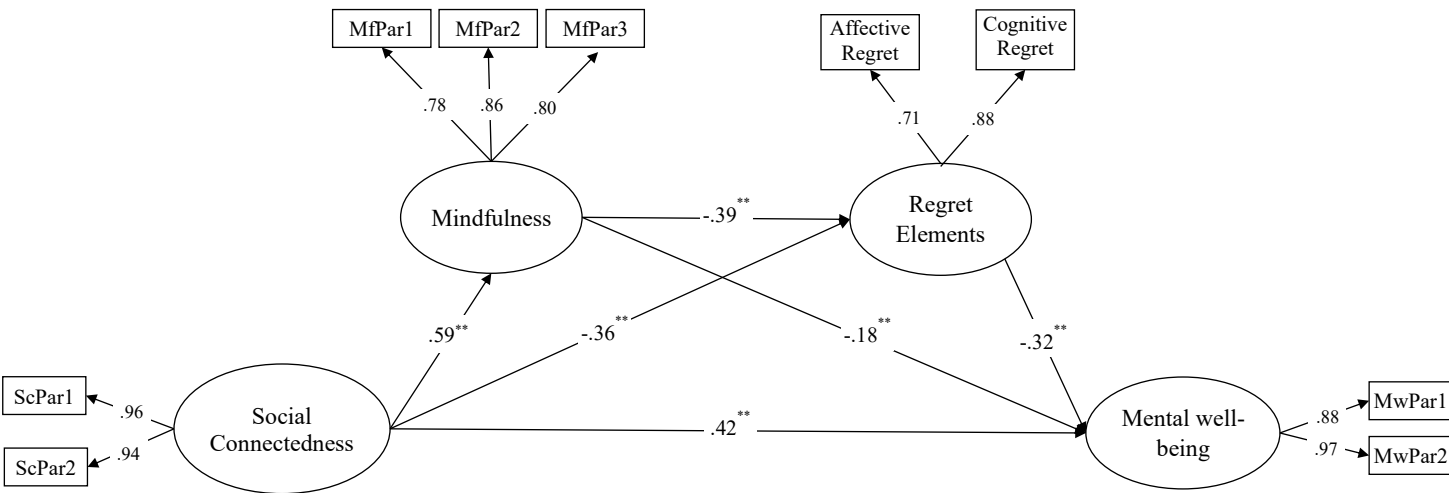


Figure 1. Standardised factor loadings for the partially mediated structural model. Note. $N = 376$; ** $p < .001$; *Scpar* parcels of Social Connectedness; *MfPar* parcels of mindfulness; *MwPar* parcels of mental well-being

All of these findings led to the conclusion that mindfulness and regret elements serve as serial and partial mediators of social connectedness and mental well-being. All findings are evaluated in the following section in light of the literature.

Discussion

Individuals are expected to maintain a satisfactory level of well-being throughout their lives. Given that the concept of mental well-being, which can mean happiness or satisfaction, also refers to the absence of disease and negativity, or economic well-being in other definitions, it is believed that the lack of a universally accepted definition stems from the fact that mental well-being has different connotations for different individuals, groups, and cultures. Culture influences emotional expression, social support systems, and coping strategies, all of which affect an individual's mental health (Gautam et al., 2024). As a result, mental well-being should be interpreted in light of the individual's sociocultural context. In addition to investigating the links between social connectedness and mental well-being, it is critical to consider the role of other concepts like mindfulness and regret. As a result, the current study seeks to investigate the mediating role of mindfulness and regret in the relationship between social connectedness and mental health. The study found that mindfulness and regret serve as serial mediators in the

relationship between social connectedness and mental health. The current study's hypotheses and findings are discussed in light of the relevant literature.

First, the relationship between social connectedness and mental well-being was examined. The study found that social connectedness predicted mental well-being. The related literature review revealed that the current study's findings were supported by previous research. Indeed, social connectedness has been linked to improved well-being (Thomas & Kamble, 2024). A 32-year longitudinal study discovered that adolescent social connectedness predicts adult well-being (Olsson et al., 2012). Another longitudinal study discovered that high levels of social connectedness were associated with a lower risk of depression and anxiety, both of which are negative indicators of mental well-being one year later, while loneliness was associated with a higher risk (Weziak-Bialowolska et al., 2022). Increased engagement was associated with better mental health, whereas decreased engagement was associated with worsening well-being over time (Oberle et al., 2024). Furthermore, the link between loneliness and low well-being supports this hypothesis (Emerson et al., 2021). Given that well-being expresses happiness, it is reasonable to assume that socially connected people are happy (Diener, 2018). Individuals must be able to form quality social relationships in order to avoid feelings of loneliness and isolation. People who exhibit these characteristics are more likely to have good mental health.

The study's other hypothesis is that mindfulness mediates the relationship between social connectedness and mental well-being. The findings of the analysis confirmed the hypothesis. This suggests that mindfulness serves as a partial mediator. In other words, social connectedness predicts mental health, both directly and indirectly, through mindfulness. Based on previous research, it is clear that the related hypothesis is supported. According to studies, mindfulness and well-being are positively related, whereas loneliness and mindfulness are negatively related (Crego et al., 2020; Borawski et al., 2021). Mindfulness is defined as the state of being attentive and aware of what is happening in the present moment; it is also an important indicator of mental health (Brown & Ryan, 2003). Experiments have demonstrated that mindfulness-based programs can improve well-being (Maloney et al., 2024; Gál et al., 2021). Although the current study's findings suggest that mindfulness plays a partial mediating role in the relationship between social connectedness and well-being, another study discovered that social connectedness and self-esteem mediate the relationship between mindfulness and well-being. When the current study's findings are taken into account, it is possible that individuals with a high level of social connectedness receive social support from those to whom they feel connected, allowing them to stay present and mentally healthy.

Another hypothesis was tested: regret's role as a mediator of social connectedness and mental health. The analyses revealed that regret mediates the relationship between social connectedness and mental well-being, and the corresponding hypothesis was confirmed. As a result, social connectedness predicts regret negatively, whereas regret predicts poor mental health. Furthermore, because of the direct link between social connectedness and mental well-being, regret is partially mediated. In other words, social connectedness influences mental health both directly and indirectly through regret. Regret is a feeling that occurs when an individual is dissatisfied with a decision and believes that a different decision would have improved the current situation (Pieters and Zeelenberg, 2007). The current study's findings are supported by research showing that regret predicts negative well-being and that social connectedness reduces the risk of future regret (Cusatis et al., 2020; Xu et al., 2021). Based on all of this, it has been discovered that people who feel socially connected have fewer regrets and thus enjoy a higher level of well-being. People have fewer regrets because of their positive relationships with their surroundings. Less exposure to negative emotions, such as regret, may be interpreted as a sign of good mental health.

Finally, the study's main hypothesis is that mindfulness and regret play a mediating role in the relationship between social connectedness and mental health. The analyses revealed that mindfulness and regret are serial mediators. In this case, social connectedness predicts mental well-being both directly and indirectly, via mindfulness and regret. It was discovered that the related concepts were investigated in pairs in various studies in the literature, and their findings were consistent with those of the current study. For example, in direct relationships, social connectedness and well-being are positively correlated, as are mindfulness and well-being (Arslan, 2017; Zollars et al., 2019). Furthermore, given that regret can be avoided by feeling social connectedness, if studies revealing a negative relationship between the concept of regret and well-being are evaluated, the current study's

findings are supported (Cusatis et al., 2020; Xu et al., 2021). In light of all of this valuable information, it is clear that individuals' well-being can improve when they feel socially connected. Among the factors that enable this situation to occur, it is worth noting that the individual is aware of his or her current situation and does not regret his or her actions.

Conclusion

The study's findings revealed that mindfulness and regret play a partial mediating role in the relationship between social connectedness and mental health. In other words, social connectedness predicts mental health both directly and indirectly via mindfulness and regret. It was discovered that people's high levels of social connectedness can contribute to an increase in mindfulness and a decrease in regret, resulting in an increase in mental well-being. In the literature, social connectedness is a quantitative model that explains the link between mental health, mindfulness, and regret. Individuals may require a sense of social connection to support their mindfulness. Furthermore, it may indicate that the feeling of regret is less intense. As a result, it has the potential to improve mental health. At this point, programs that help people feel more connected to others can help them practice mindfulness and have less regret. As a result, it can help people feel better.

Limitations and future research

Although the study's findings are relevant to the field, some limitations should be noted. First and foremost, the data for this study were gathered through self-reported measurement tools. This demonstrates that the data obtained can only explain variables that fall within the measurement tools' range. Future studies may use a variety of techniques in addition to self-report measurement tools. Another limitation pertains to the research methodology. Although structural equation modeling, which can provide strong results from quantitative methods, was used in the study, the cause-effect link should be used with caution due to the nature of the quantitative method and the sample's cross-sectionality.

Although the structural equation model suggests that social connectedness, mindfulness, and regret all predict mental well-being, more longitudinal and experimental research is needed to fully understand these causal pathways. Another limitation is that this study only considers the variables listed. The mediating role of various concepts between social connectedness and mental well-being can be investigated. People's social connections may require different predispositions. At this point, studies on social skills for interpersonal relationships can begin. On the other hand, programs to promote well-being can be created. In terms of regret, emotion regulation and decision-making abilities can be taken into consideration. At these points, mindfulness-based programmes can be implemented.

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Ethical approval

This study has been approved by the Human Research Ethics Committee of Zonguldak Bülent Ecevit University with 446568-13.05.2024 number and date.

Contribution rate of researchers

The authors contributed equally to the study.

Conflict of interest

There is no potential conflict of interest in this study.

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