

## RESEARCH

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## ARAŞTIRMA

Açık Erişim

## The Relationship among Mindfulness, Sense of Uniqueness, and Hope: The Mediatonal Role of Psychological Inflexibility

*Bilinçli Farkındalık, Kişisel Biriciklik Algısı ve Umud Arasındaki İlişki: Psikolojik Esnekliğin Aracılık Rolü*

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### ABSTRACT

Hope is one of the sources of resilience that facilitates adaptation and coping in the face of crucial life changes and difficulties. Therefore, more studies are needed regarding hope and its predictors. Based on this philosophy, the mediating role of psychological inflexibility in the relationship among hope, mindfulness, and sense of uniqueness was examined in this study. A total of 352 undergraduate students (279 female and 73 male) from various universities in Turkey were included in to study. The results indicated that psychological inflexibility has a full mediator role in the relationship between mindfulness and hope and a partial mediator role in the relationship between sense of uniqueness and hope. The findings are discussed in the context of theoretical postulation and current empirical studies. In line with the results, recommendations for researchers and mental health practitioners are provided.

### ÖZET

Umut, önemli yaşam olayları ve zorlukları karşısında uyum sağlamayı ve başa çıkmayı kolaylaştıran psikolojik sağlık kaynaklarından biridir. Bu nedenle, umut ve onun yordayıcıları ile ilgili daha fazla çalışmaya ihtiyaç vardır. Dolayısıyla, bu çalışmada umut, bilinçli farkındalık ve kişisel biriciklik algısı arasındaki ilişkide psikolojik esnekliğin aracılık rolü incelenmiştir. Çalışmaya Türkiye'nin farklı üniversitelerinde lisans düzeyinde öğrenim gören 279 kadın, 73 erkek olmak üzere toplam 352 kişi dahil edilmiştir. Sonuçlar, psikolojik esnekliğin bilinçli farkındalık ve umut arasındaki ilişkide tam aracılık ve kişisel biriciklik algısı ile umut arasındaki ilişkide kısmi aracılık rolleri olduğunu göstermiştir. Bulgular, kuramsal ve güncel ampirik çalışmalar bağlamında tartışılmıştır. Sonuçlar doğrultusunda araştırmacılar ve ruh sağlığı uzmanları için çeşitli öneriler sunulmuştur.

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## INTRODUCTION

Although the hope is a term often used in common parlance, it is used interchangeably with wishful thinking or even positive thinking. Snyder (2000) defined hope as the belief that one can produce a path to achieve desired goals. In other words, hope, as a goal-oriented agency, is defined as the set of cognition that initiates as well as maintains action (Snyder, 2002; Snyder et al., 1996). In Snyder's model (1991; 2000; 2002), pathways thinking and agency thinking are considered as two basic components of hope. While "pathways thinking" describes establishing and creatively regulating realistic and clear goals, "agency thinking" is the belief and self-confidence to overcome the obstacles and achieve goals (Larsen et al., 2020). Along this line, agency thinking reflects the motivational component of hope (Snyder & Lopez, 2005).

It is argued that the dimension of emotional aspects of hope should be added to in Snyder's models (Ward & Wampler, 2010). However, the emotional component of hope is considered as a result of cognition. Although the hope is conceptualized from the state and dispositional perspective, it is articulated that the dispositional hope also includes the state version (Snyder et al., 1996).

On the other hand, specifically hope, and broadly positive psychology has been criticized in terms of due to high emphasis on hedonic functioning and some concerns related to potential conflict between individual positive functioning and global peace (e.g., Aspinwall & Leaf, 2002; Cohrs et al., 2013; Lazarus, 2003). However, accumulating empirical data suggested that hope may contribute positively to psychological functioning with its own right. For instance, researches have shown that high hope is associated with low suicidal ideation (Huen, et al., 2015), and low alcohol and drug use (Gutierrez, 2019). Additionally, researches have shown that hope positively predicts academic self-efficacy (Feldman & Kubota, 2015), optimism and self-esteem (Ling et al., 2015), and life satisfaction (Yang et al., 2016). Although there have been studies that reflect that hope is an indicator of psychological functioning, there is a scarcity of studies in which the predictors of hope are investigated. Various studies have shown that a significant positive relationship between mindfulness and hope (e.g., Loo et al., 2014; Singh & Devender, 2015). Furthermore, it has been demonstrated that hope was predicted by mindfulness (e.g., Ender et al., 2019; Munoz et al., 2018). In a recent study, it has been found that mindfulness can increase analytical thinking and decrease belief in the just world (Fitzgerald & Lueke, 2017). It can be deduced that mindfulness can also directly predict hope, as it can increase analytical thinking, which is an important component of hope. Therefore, in this study, we hypothesize that mindful awareness and uniqueness may be the determinants of hope.

Mindfulness is defined as improving attention and awareness of current experiences and reality (Brown & Ryan, 2003). Additionally, mindfulness is explained as cultivating current experience nonjudgmentally and purposefully (Kabat-Zinn, 2003). Mindfulness may contribute to affect regulation and affective well-being (Jimenez et al., 2010; Rowland et al., 2018) and psychological well-being (Brown & Ryan, 2003). It has been found that a strong mediating role of psychological need satisfaction exists in relation to mindfulness and positive/ negative affect as well as depression, stress, and anxiety (Charbonneau, 2019). Similarly, in a study by Sarıçalı and Satici, (2017), it was demonstrated that mindfulness predicts psychological vulnerability in Turkish undergraduate sample. Apart from western cultures, moreover, it is theoretically argued that mindfulness may be the main determinant of well-being beyond the hedonic and eudaimonic well-being paradigm (Christopher, 2018).

One of the important functions of mindfulness is to contribute to affect regulation by making use of cognitive energy to focus on the current experiences. Accordingly, mindfulness may diminish mind wandering (Deng et al., 2014) and the crucial role of mindful acceptance of the current moment in reducing mind wandering via mindfulness training has also been revealed (Rahl et al., 2017). Accumulating evidence indicates that mindfulness is the opposite of mind wandering (Crosswell et al., 2019; Mrazek et al., 2012). The contribution of mindfulness to the regulation of cognitive processes and cognitive energy to focus on the current experience is expected to contribute to hope which is defined as finding alternative ways of solving problems and motivations for the solution (Ender et al., 2019). Therefore, mindful awareness has been proposed as a determinant of hope in this study. With this in mind, it was hypothesized that, may also be a mediator in this relationship. Although psychological inflexibility is considered a mindfulness-related construct, it is stated that there is limited research in which these two phenomena are examined together (Woodruff et al., 2014).

The effort to avoid present experiences, especially negative ones, overwhelms the person and paradoxically push them into painful experiences of inflexibility (Hayes et al., 2006). Psychological inflexibility is the reluctance to keeping contact with present feelings, thoughts, and bodily sensations (Hayes et al., 2004). According to the psychological inflexibility models, in addition to avoiding experience, using language, also inflate the pains as the person begins to symbolizing the experience as opposed to mindfully experiencing it in the present moment (Chawla & Ostafin, 2007). Thus, because of psychological inflexibility, a person's intellectual and behavioral repertoire is restricted, which is also crucial for hope.

Researchers have shown that psychological inflexibility is positively associated with depression, stress anxiety (Hayes et al., 2004; Meunier et al., 2014) depressive symptoms (Kato, 2016), post-traumatic stress disorder (Meyer et al., 2019), and academic procrastination (Sutcliffe et al., 2019). In terms of personality, it was indicated that high mindfulness was associated with low neuroticism and high conscientiousness, whereas high psychological inflexibility was associated with high neuroticism and low conscientiousness (Latzman & Masuda, 2013). In another study, mindfulness and psychological inflexibility were found to be separately related to distress, and it was concluded that mindfulness and psychological inflexibility were interrelated concepts (Masuda & Tully, 2012). Based on the relationship between psychological inflexibility and depressive symptoms and variables that show psychological functioning, this study proposed that psychological inflexibility may mediate the relationship between mindfulness and hope. Additionally, since it regulates the behavior and thoughts of the person in line with their genuine values (Hayes et al., 2006), the mediating role of psychological inflexibility in uniqueness and hope is also expected.

The perception of uniqueness in the literature has been defined as two different approaches, namely need for uniqueness (Snyder & Fromkin, 1977) and sense of uniqueness (Şimşek & Yalınçetin, 2010). While the need for uniqueness describes an effort to be different in a positive manner (Snyder & Fromkin, 1977), the sense of uniqueness is described as an important part of the identity that facilitates the acceptance of self-specific characteristics (Şimşek & Yalınçetin, 2010). Research studies concerning the sense of uniqueness indicated that high uniqueness was associated with high happiness (Demir et al., 2013; Şimşek & Demir, 2013), high sense of uniqueness was also associated with high authenticity (Koydemir et al., 2018). In another study, the mediating role of sense of uniqueness in relation to extroversion and openness to experience personality traits and happiness was documented (Koydemir et

al., 2014). In this study, it was expected that sense of uniqueness would predict hope through psychological inflexibility. As an interdependent culture in Turkey, autonomy is crucial for personal growth like in collectivistic cultures (Kagitcibasi, 2005, 2013). Therefore, it may be expected that the sense of uniqueness predicated on autonomy may predict psychological inflexibility. It may also be speculated that in interdependent cultures, rumination and cognitive diffusion which originated from relatively intertwined relationships may be more frequent. Therefore, the sense of uniqueness may increase hope by reducing psychological inflexibility.

### **The Present Study**

Although the hope is an important psychological construct in daily life and therapeutic encounter (Ward & Wampler, 2010; Winter Plumb et al., 2020) it is considered an under-research topic (Flaskas, 2007; Larsen et al., 2020; Scioli et al., 2011). In a limited number of studies, the contribution of hope to positive functioning has been investigated. However, to fully realize the potential of hope as a construct, it is necessary to determine the variables that may predict hope. Moreover, hope was found to be a more important determinant of functionality in high school students than in middle school students (Lenz, 2021). In line with this finding, it was inferred that hope may be more important for undergraduate students who are at an important developmental crossroads and the predictors of hope were found to be worthy of research in an undergraduate sample. Based on this philosophy, the following hypotheses are proposed in this research:

*Hypothesis 1:* Mindfulness will be positively related to hope.

*Hypothesis 2:* Personal sense of uniqueness will be positively related to hope.

*Hypothesis 3:* Psychological inflexibility will be negatively related to hope.

*Hypothesis 4:* Psychological inflexibility will mediate the relationship among mindfulness, uniqueness, and hope.

## **METHOD**

### **Participants and Procedures**

A total of 356 voluntary university students in Turkey were recruited via an online survey from advertisements on Turkish online forums, Facebook and WhatsApp. Inclusion criteria were being (i) Turkish, (ii) being able to understand spoken Turkish, (iii) aged 18 years or older, and (iv) being a university student. Informed consent was given to the participants before data were collected. Since a large number of items were left blank, a set of four response sets was excluded before the analysis, and the remaining 352 pieces of data (279 female and 73 male) were analyzed. The ages of the participant range from 17 to 34 years ( $M = 20.72$ ,  $SD = 1.43$ ).

### **Ethical Statement**

All procedures conducted were approved by the Nevşehir Hacı Bektaş Veli University Scientific Research and Ethical Review Board. (Decision Number: E.9755, Date: 14.05.2020).

### **Data Collection Tools**

***Dispositional Hope Scale (DHS)***. was developed by Snyder et al. (1991) to evaluate hope perceptions. DHS consists of 12 items and two subscales called Pathways thinking (e.g., There are lots of ways around

any problem) and Agency thinking (e.g. I energetically pursue my goals). The four items are fillers that are not related to hope. Except for the filler items, DHS consists of eight items with eight Likert types. Turkish form of the DHS was adapted by Tarhan and Bacanlı (2015). The scores obtained from the scale range between eight and 64. The increase in the scores indicates an increased dispositional hope perception. Exploratory factor analysis showed that items were collected in two factors and the total variance was explained as 61%. As the result of the confirmatory factor analysis, fit index values were emerged as GFI = .96, AGFI = .92, CFI = .96 and RMSEA = .077. and was found as .81. Test re-test reliability coefficient of Pathways thinking was .78 and that of Agency thinking was .81 and internal consistency coefficient was .84 of the Turkish form of hope. In this study, Cronbach's Alpha coefficient was .82.

**Acceptance and Action Questionnaire-II (AAQ-II).** Original AAQ-II was designed by Bond et al. (2011) to assess psychological inflexibility based on the Acceptance and Commitment Therapy. AAQ-II is a seven-point Likert-type scale that consists of seven items (e.g. My painful experiences and memories make it difficult for me to live a life that I would value). High scores indicate lower psychological flexibility. Turkish form of the AAQ-II was adapted by Meunier et al. (2014). The first confirmatory factor analysis result showed that the first model of the AAQ-II poorly fitted the data because of the strong relationship between items 1 and 4. After the adding the estimates of the covariance between the errors of items 1 and 4, it is seen that the second model has acceptable fit indices (Satorra-Bentler scaled  $\chi^2(13) = 35.42$ ,  $p < .001$ , CFI = .97, RMSEA = .08, SRMR = .05). The poor fit of the data problem due to strong similarity between items 1 and 4 was also observed in this study. Meunier et al. (2014) recommended that the model could be evaluated by discard one of these items. Therefore, the analysis was executed with six items by removing the first item from the Turkish form. In the Turkish adaptation study of the AAQ-II, the internal consistency coefficient was .88 and the test-retest coefficient was .78 (Meunier et al., 2014). The Cronbach's alpha coefficient was found as .86 in the current study.

**Personal Sense of Uniqueness (PSU) Scale.** PSU scale was developed by Şimşek and Yalınçetin (2010) to measure individuals' personal sense of uniqueness. Explanatory factor analysis supported the one factor with five items (e.g., As people get to know me more, they begin to recognize my special features) construct of the PSU scale. The result of the confirmatory factor analysis showed a nearly perfect fit to the data:  $\chi^2/df = 0.30$ , CFI = 1.00, AGFI = 1.00, GFI = 1.00, SRMR = .008, and RMSEA = .000). The internal consistency coefficient was found .81 and test re-test reliability was found as .80. In the current study, it was found that there is no meaningful relationship between item 3 and the total of the scale ( $p > .05$ ) and this item reduces the Cronbach's Alpha internal consistency (.55). Thus, further analyses were executed by removing this item. Cronbach's Alpha internal consistency coefficient was found .69 in the current study.

**Mindful Attention Awareness Scale (MAAS).** The original MAAS was developed by Brown and Ryan (2003). The MAAS is a six-point Likert type and includes 15 items (e.g., I find myself listening to someone with one ear, doing something else at the same time.). that measure awareness of the experience occurring in the present moment in daily life. Higher scores indicate greater levels of mindfulness. Turkish form of the MAAS was adapted by Özyeşil, Arslan, Kesici and Deniz (2011). The confirmatory factor analysis showed that one factor with 15 items indicates an acceptable fit to the data ( $\chi^2/df = 2.086$ , RMSEA=.06, GFI=.93, and AGFI=.91). The Cronbach's Alpha coefficient was .80 and the test-retest correlation coefficient was .86. In the current study, Cronbach's Alpha internal consistency coefficient was .83.



## Data Analysis

In the study, the mediational role of psychological inflexibility in the relationship among mindfulness, uniqueness perception, and hope were tested via structural equation modeling (SEM). SEM was used to test the measurement and mediation models with the help of AMOS Graphics. Descriptive and correlation analyses were executed in IBM SPSS Statistics 22.0.

Item parceling method was used for mindfulness. This method is based on reducing the number of observed variables to provide controlling measurement errors because of multiple items for the latent variable (Little et al., 2002), and increase the normality and reliability of the measures (Nasser-Abu Alhija & Wisenbaker 2006). Five item parcels for mindfulness were constructed concerning with balancing approach. In this approach, items with the highest item correlation and lowest correlation are matched (Little et al., 2013).

Mediation analysis consists of two phases. In the first step, the measurement model is tested. In the second step, if the statistical values obtained from the measurement model are adequate, the measurement model would be tested with the help of the maximum likelihood estimation paradigm. Some measurement error and goodness of fit index values such as  $\chi^2/df < 5$ , CFI, GFI, TLI, IFI  $> .90$ , RMSEA, and SRMR  $< 0.08$  were used to test the validity of the models (Hu & Bentler 1999; MacCallum et al. 1996; Tabachnick & Fidell, 2007). Further, models were compared using path coefficients and  $\chi^2$  test.

The percentile bootstrapping method was used to determining the mediator roles of psychological inflexibility in the relationships among mindfulness, uniqueness, and hope. The bootstrapping method was computed considering 95% bias-corrected confidence intervals of the total, direct, and indirect effects from 5,000 resample of the data. The proposed mediational model is considered statistically significant since it does not include zero in the specified confidence interval.

## RESULTS

### Descriptive Statistics and Correlations

The descriptive statistics concerning psychological inflexibility, uniqueness, mindfulness, and hope as well as the correlation results of these variables are given in Table 1. Firstly, it was checked whether the distribution of the variables in this research met the criteria of the normality assumption. It is seen that skewness coefficients range from  $-.43$  to  $.22$ , and kurtosis coefficients range from  $-.72$  to  $.26$ . According to Field, (2009), it can be stated that normality assumption of all variables was met. The correlation analysis found that both dimensions of hope positively correlated with the uniqueness and parcels of mindfulness. On the other hand, psychological inflexibility negatively correlated with all variables.

**Table 1. Descriptive statistics for the variables (n = 352)**

Variable	1	2	3	4	5	6	7	8	9
1. Hope1	-								
2. Hope2	.61**	-							
3. MindPar1	.11*	.20**	-						
4. MindPar2	.19**	.16**	.51**	-					
5. MindPar3	.16**	.23**	.50**	.56**	-				
6. MindPar4	.19**	.19**	.53**	.56**	.53**	-			
7. MindPar5	.23**	.31**	.48**	.51**	.62**	.48**	-		
8. Uniqueness	.29**	.30**	-.01	-.02	.06	-.03	.05	-	
9. Psych. inflex.	-.27**	-.43**	-.49**	-.30**	-.40**	-.30**	-.45**	-.14**	-
M	24.43	22.08	3.25	4.19	4.17	4.12	4.15	14.92	21.12
SD	4.63	4.93	.97	.97	.95	1.01	.98	3.29	8.85
Skewness	-.5	-.43	.29	-.17	-.11	-.19	-.06	-.36	.22
Kurtosis	-.30	.26	-.10	-.59	-.64	-.49	-.46	-.68	-.72

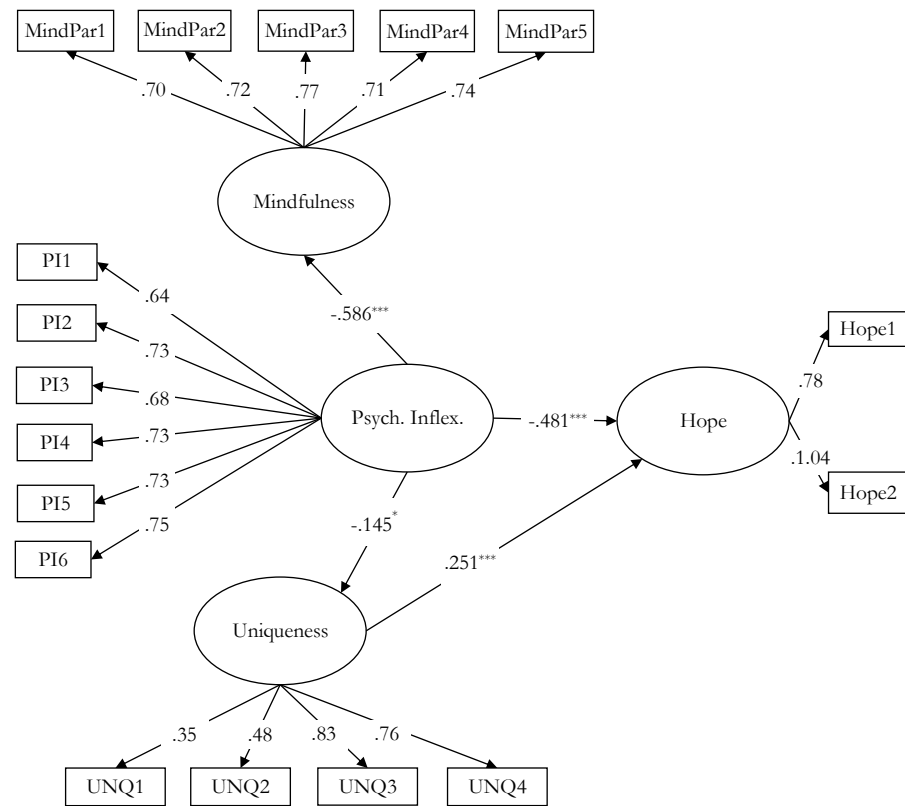
Note. \*\* $p < .01$ ; \* $p < .05$ ; Par Parcel; *Hope1* Pathways Thinking Dimension of Dispositional Hope; *Hope2* Agency Thinking Dimension of Dispositional Hope; *Mind* Mindfulness; *Psych. Inflex.* Psychological inflexibility

### Measurement Model

In the study, the measurement model had four latent factors which are hope, sense of uniqueness, psychological inflexibility, mindfulness, and 23 observed variables. The test of measurement model demonstrated that data has an acceptable fit:  $\chi^2 (222, N = 352) = 418.05, p < .001$ ; GFI = .90; CFI = .93; TLI = .92; RMSEA = .05; SRMR = .055. The factor loadings (ranged .35 to .1.03) demonstrated that they are exact representations of their latent factors for all indicators. When these values are taken into consideration, it may be stated that the measurement model was accepted.

### Structural Model

After approving of the measurement model, a model where psychological inflexibility is a partial mediator of the relationship between mindfulness, sense of uniqueness, and hope was tested. Model 1 showed an acceptable fit to the data:  $\chi^2 (223, N = 352) = 418.05, p < .001$ ; CFI = .93; TLI = .93; GFI = .90; SRMR = .055; RMSEA = .050. On the other hand, the paths between mindfulness and hope was not significant ( $\beta = .14, p > .05$ ). Therefore, this meaningless path was removed and Model 2 where psychological inflexibility was full mediator between mindfulness and hope but partial mediator between uniqueness and hope was tested. Model 2, also, showed an acceptable fit to data:  $\chi^2 (224, N = 352) = 421.52, p < .001$ ; CFI = .93; TLI = .92; GFI = .90; SRMR = .056; RMSEA = .050. Moreover, Chi square difference test results showed that an additional path from mindfulness to hope did not significantly contribute to the model fit ( $\Delta\chi^2 = 3.47, df = 1, p > .05$ ). Thus, Model 2 where psychological inflexibility was full mediator between mindfulness and hope was chosen. The path coefficients for this model are given in Figure 1.



Note.  $N = 352$ ; \*\*\*  $p < .001$ ; Note. \*\* $p < .01$ ; \* $p < .05$ ; Par Parcel; Hope1 Pathways Thinking Dimension of Dispositional Hope; Hope2 Agency Thinking Dimension of Dispositional Hope; Mind Mindfulness; PI item of Psychological Inflexibility; Psych. Inflex. Psychological Inflexibility; UNQ item of Uniqueness.

Figure 1. Standardized factor loading of the mediated structural model.

### Bootstrapping

Bootstrapping was performed with 5000 resampling via 95% bias-corrected bootstrapped confidence intervals (CIs) to provide further evidence of whether the direct and indirect effect of mindfulness and uniqueness through psychological inflexibility was significant. The bootstrap coefficients and the confidence intervals are presented in Table 2.

Table 2. Parameters and 95 % CIs for the paths of the mediated model

Model pathways	Bootstrapping		95 % C.I.	
	Effect	SE	Lower	Upper
Direct effects				
Uniqueness → Psychological inflexibility	-.15	.06	-.26	-.02
Mindfulness → Psychological inflexibility	-.59	.04	-.67	-.49
Uniqueness → Hope	.25	.08	.01	.40
Psychological inflexibility → Hope	-.48	.06	-.60	-.36
Indirect effects				
Uniqueness → Psychological inflexibility → Hope	.07	.03	.02	.13
Mindfulness → Psychological inflexibility → Hope	.28	.05	.20	.38



The results indicated that all direct and indirect effects are significant. All in all, it can be stated that bootstrap results provide additional evidence of psychological inflexibility has a full mediator role between mindfulness and hope but a partial mediator role between uniqueness and hope.

## **DISCUSSION, CONCLUSION & SUGGESTIONS**

In this research study, we tested two potential pathways that could enhance hope. In the first pathway, the full mediation of psychological inflexibility was revealed in the relationship between mindfulness and hope. However, in the second pathway, psychological inflexibility was partially mediated the relationship between uniqueness and hope. Thus, in this study, four hypotheses were tested for both direct and indirect relationships. The discussion on these hypotheses is given below.

The first hypothesis of the research that predicted a positive correlation between hope and mindfulness has been confirmed. This finding is consistent with the researches that reveal the positive relationship between mindfulness and hope in school counselors (Ender et al., 2019). Similarly, this research is in line with the studies which show that self-compassion, which is one of the mindfulness-related concepts, predicts hope (Yang et al., 2016). This finding also indirectly overlaps with the research findings that mindfulness decreases mind wandering (Rahl et al., 2017). Therefore, it may be inferred that it is important for hope to get rid of negative thought patterns such as rumination and regulate cognitive processes through mindfulness. Moreover, in counseling psychology students, the mediation role of hindering self-focused attention was found in the relationship between mindfulness and self-efficacy (Wei et al., 2015). Hence, in the high mindful awareness condition, people may effectively regulate attention that is focused negatively on self and find alternative ways for solutions to current problems.

The second hypothesis of the study regarding the relationship between personal sense of uniqueness and hope is confirmed. In the acceptance and action model, the absence of the ability to manage relationships is considered the main cause of psychopathology (Hayes et al., 2006). Taking this theoretical presupposition and the findings of this research into account, the development of the sense of uniqueness without experiencing a diffusion in relationships may facilitate the regulation of relationships and the development of dispositional hope.

The main hypothesis of the research that targeted to test the mediation effect of psychological inflexibility in the relationship between mindfulness, uniqueness, and hope was accepted in two different ways. The analysis showed that psychological inflexibility was a full mediator in the relationship between mindfulness and hope, but was a partial mediator in the relationship between uniqueness and hope.

According to the findings, the relationship between mindfulness and hope occurs through flexibility. In other words, mindfulness raises hope by increasing psychological flexibility. This finding makes a strong contribution to the mindfulness literature. Mindfulness refers to recognizing the emotional and intellectual experiences objectively and being able to look at them more accepting and tolerant rather than being firmly attached to them (Kabat-Zinn, 2003). In this respect, mindfulness enables individuals to appreciate all their positive and negative experiences, to live them here and now, and to increase their well-being by liberating themselves from disturbing thinking styles (Brown & Ryan, 2003). Therefore, it can be stated that there is a natural bond between mindfulness and psychological flexibility. In this respect, it is quite meaningful that mindfulness raises hope by increasing psychological flexibility in its relationship with hope. This result is consistent with research indicated that mediating role of psychological inflexibility relations between mindfulness and adaptive emotional schemas (Silberstein et

al., 2012), and the mediating role of hindering self-focused attention between psychological inflexibility and self-efficacy (Wei et al., 2015). This research is also consistent with the scholarship that psychological inflexibility has a positive relationship with mindfulness in adaptations study of psychological inflexibility scales to the Spanish culture (Flynn et al., 2016). Further, considering the research findings showing that psychological inflexibility predicts depressive symptoms (Hayes et al., 2004; Kato, 2016; Meunier et al., 2014) together with this research finding, it may be stated that psychological inflexibility is important variables besides mindfulness for hope.

Finally, the mediating role of psychological inflexibility in the relationship between sense of uniqueness and hope was partially confirmed. In other words, uniqueness predicted hope both directly and through psychological inflexibility. This finding is similar to the research that psychological inflexibility negatively predicts identity diffusion (Salande et al., 2017) as sense of uniqueness involves considering identity as valuable and autonomous. In addition, the findings of this research are indirectly in line with the studies that reveal the relationship between the sense of uniqueness and happiness (Koydemir et al., 2014) as well as subjective well-being (Demir et al., 2019). Hence, just as happiness, the sense of uniqueness is an important determinant for hope in the Turkish sample. However, the sense of uniqueness makes a partial contribution to hope through psychological inflexibility. Further research is needed to determine potential moderators and mediators of this relationship.

### **Conclusion and Practical Implications**

The researchers proposed that mindfulness and psychological inflexibility, the concepts of the third-generation cognitive-behavioral approach, are crucial for hope. Further, the sense of uniqueness also contributed to hope. In line with these findings, counselors working with undergraduate clients may consider postulation of the third-generation cognitive behavioral approach to developing hope. Undergraduate students may be exposed to many development stages-specific stressors such as future anxiety, academic stress, and relationship problems. Additionally, as in the recent COVID-19 pandemic, a number of collective stress may be experienced for undergraduate college youth. Thus, to deal with all these individual and collective stressors, the development of hope is crucial. The findings of this study proposed that increasing mindfulness, uniqueness and decreasing psychological inflexibility are effective ways promoting hope. Accordingly, in situations where the individual or collective stress is experienced, activities fed by mindfulness and acceptance and commitment theory may be effective to increase hope. Furthermore, the existential approach to therapies may be considered important in enhancing the sense of uniqueness and hope to strengthen the value of being an autonomous agent.

### **Limitations and Suggestions**

As with any empirical research, this study had some limitations. First, this research is cross-sectional and correlational. Experimental as well as longitudinal studies are needed to inferred cause and effect relationships. Second, this research was done in self-report methods. In future researches, the impact of state mindfulness on hope can be examined by using various mindfulness induction and psychological inflexibility priming methods. Thirdly, in this study, predictive relations between the sense of uniqueness and hope were introduced. However, further studies may concern other potential mediators such as autonomy, relational self-construal, dialectic self, self-complexity; and also, narcissism may be used as a control variable in this relationship. Finally, this research was carried out with an undergraduate sample.

The potential roles of mindfulness, psychological inflexibility, and sense of uniqueness in the therapeutic relationship may be concerned in further research.

## REFERENCES

- Aspinwall, L. G., & Leaf, S. L. (2002). In search of the unique aspects of hope: Pinning our hopes on positive emotions, future-oriented thinking, hard times, and other people. *Psychological Inquiry*, 13(4), 276-288.
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K. et al. (2011). Preliminary psychometric properties of the acceptance and action questionnaire - II: A revised measure of psychological flexibility and experiential avoidance. *Behavior Therapy*, 42, 676-688.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822-848. doi:10.1037/0022-3514.84.4.822
- Charbonneau, D. (2019). Model of mindfulness and mental health outcomes: Need fulfillment and resilience as mediators. *Canadian Journal of Behavioural Science-Revue Canadienne Des Sciences Du Comportement*, 51(4), 239-247. doi:10.1037/cbs0000137
- Chawla, N., & Ostafin, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology*, 63(9), 871-890. doi:10.1002/jclp.20400
- Christopher, J. C. (2018). Let it be: Mindfulness and releasement—Neglected dimensions of well-being. *Journal of Theoretical and Philosophical Psychology*, 38(2), 61.
- Cohrs, J. C., Christie, D. J., White, M. P., & Das, C. (2013). Contributions of positive psychology to peace: Toward global well-being and resilience. *American Psychologist*, 68(7), 590-600. doi:10.1037/a0032089
- Crosswell, A. D., Coccia, M., & Epel, E. S. (2019). Mind wandering and stress: When you don't like the present moment. *Emotion*, 20(3), 403-412. doi:10.1037/emo0000548
- Demir, M., Haynes, A., Sanchez, M., & Parada, J. C. (2019). Personal sense of uniqueness mediates the relationship between compassion for others and subjective well-being. *Journal of Happiness Studies*, 20(6), 1751-1773.
- Demir, M., Şimşek, Ö. F., & Procsal, A. D. (2013). I am so happy 'cause my best friend makes me feel unique: Friendship, personal sense of uniqueness and happiness. *Journal of Happiness Studies*, 14(4), 1201-1224. doi:10.1007/s10902-012-9376-9
- Deng, Y.-Q., Li, S., & Tang, Y.-Y. (2014). The relationship between wandering mind, depression and mindfulness. *Mindfulness*, 5(2), 124-128. doi:10.1007/s12671-012-0157-7
- Ender, Z., Sarıçalı, M., Satici, S. A., & Eraslan-Capan, B. (2019). Is mindful awareness effective on hope, burnout and self-efficacy among school counsellors in Turkey? *British Journal of Guidance & Counselling*, 47(6), 712-726.
- Feldman, D. B., & Kubota, M. (2015). Hope, self-efficacy, optimism, and academic achievement: Distinguishing constructs and levels of specificity in predicting college grade-point average. *Learning and Individual Differences*, 37, 210-216.
- Field, A. (2009). *Discovering statistics using SPSS*. London: Sage
- Fitzgerald, C. J., & Lueke, A. K. (2017). Mindfulness increases analytical thought and decreases just world beliefs. *Current Research in Social Psychology* 24(8), 80-85.
- Flaskas, C. (2007). Holding hope and hopelessness: Therapeutic engagements with the balance of hope. *Journal of Family Therapy*, 29(3), 186-202.
- Flynn, M. K., Berkout, O. V., & Bordieri, M. J. (2016). Cultural considerations in the measurement of psychological flexibility: Initial validation of the Acceptance and Action Questionnaire-II among Hispanic individuals. *Behavior Analysis: Research and Practice*, 16(2), 81.

- Gutierrez, D. (2019). Spiritus contra spiritum: Addiction, hope, and the search for meaning. *Spirituality in Clinical Practice, 6*(4), 229-239. doi:10.1037/scp0000201
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*(1), 1-25. doi:10.1016/j.brat.2005.06.006
- Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., . . . McCurry, S. M. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54*(4), 553-578. doi:10.1007/BF03395492
- 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*, 1-55. doi:10.1080/10705519909540118
- Huen, J. M. Y., Ip, B. Y. T., Ho, S. M. Y., & Yip, P. S. F. (2015). Hope and hopelessness: The role of hope in buffering the impact of hopelessness on suicidal ideation. *PLOS ONE, 10*(6), e0130073. doi:10.1371/journal.pone.0130073
- Jimenez, S. S., Niles, B. L., & Park, C. L. (2010). A mindfulness model of affect regulation and depressive symptoms: Positive emotions, mood regulation expectancies, and self-acceptance as regulatory mechanisms. *Personality and Individual Differences, 49*(6), 645-650. doi:10.1016/j.paid.2010.05.041
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10*(2), 144-156. doi:10.1093/clipsy/bpg016
- Kagitcibasi, C. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology, 36*(4), 403-422. doi:10.1177/0022022105275959
- Kagitcibasi, C. (2013). Adolescent autonomy-relatedness and the family in cultural context: What is optimal? *Journal of Research on Adolescence, 23*(2), 223-235. doi:10.1111/jora.12041
- Kato, T. (2016). Psychological inflexibility and depressive symptoms among Asian English speakers: a study on Indian, Philippine, and Singaporean samples. *Psychiatry Research, 238*, 1-7.
- Koydemir, S., Şimşek, Ö. F., & Demir, M. (2014). Pathways from personality to happiness: Sense of uniqueness as a mediator. *Journal of Humanistic Psychology, 54*(3), 314-335. doi:10.1177/0022167813501226
- Koydemir, S., Şimşek, Ö. F., Kuzgun, T. B., & Schütz, A. (2018). Feeling special, feeling happy: Authenticity mediates the relationship between sense of uniqueness and happiness. *Current Psychology, 1*-11. doi:10.1007/s12144-018-9865-z
- Larsen, D. J., Whelton, W. J., Rogers, T., McElheran, J., Herth, K., Tremblay, J., . . . Domene, J. (2020). Multidimensional hope in counseling and psychotherapy scale. *Journal of Psychotherapy Integration. doi:10.1037/int0000198*
- Latzman, R. D., & Masuda, A. (2013). Examining mindfulness and psychological inflexibility within the framework of Big Five personality. *Personality and Individual Differences, 55*(2), 129-134.
- Lazarus, R. S. (2003). TARGET ARTICLE: Does the positive psychology movement have legs? *Psychological Inquiry, 14*(2), 93-109. doi:10.1207/S15327965PLI1402\_02
- Lenz, A. S. (2021). Evidence for relationships between hope, resilience, and mental health among youth. *Journal of Counseling & Development, 99*(1), 96-103.
- Ling, Y., Huebner, E. S., Liu, J., Liu, W.-L., Zhang, J., & Xiao, J. (2015). The origins of hope in adolescence: A test of a social-cognitive model. *Personality and Individual Differences, 87*, 307-311.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling, 9*(2), 151-173. doi:10.1207/S15328007SEM0902\_1

- Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy needn't be one. *Psychological methods, 18*(3), 285-300. doi: 10.1037/a0033266
- Loo, J. M., Tsai, J. S., Raylu, N., & Oei, T. P. (2014). Gratitude, hope, mindfulness and personal-growth initiative: Buffers or risk factors for problem gambling? *PloS one, 9*(2), e83889. doi:10.1371/journal.pone.0083889
- 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.
- Masuda, A., & Tully, E. C. (2012). The role of mindfulness and psychological flexibility in somatization, depression, anxiety, and general psychological distress in a nonclinical college sample. *Journal of Evidence-Based Complementary & Alternative Medicine, 17*(1), 66-71.
- Meunier, B., Atmaca, S., Ayranci, E., Gökdemir, B. P., Uyar, T., & Bastug, G. (2014). Psychometric properties of the Turkish version of the acceptance and action questionnaire-II (AAQ-II). *Journal of Evidence-Based Psychotherapies, 14*(2), 179.
- Meyer, E. C., La Bash, H., DeBeer, B. B., Kimbrel, N. A., Gulliver, S. B., & Morissette, S. B. (2019). Psychological inflexibility predicts PTSD symptom severity in war veterans after accounting for established PTSD risk factors and personality. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*(4), 383.
- Mrazek, M. D., Smallwood, J., & Schooler, J. W. (2012). Mindfulness and mind-wandering: Finding convergence through opposing constructs. *Emotion, 12*(3), 442-448. doi:10.1037/a0026678
- Munoz, R. T., Hoppes, S., Hellman, C. M., Brunk, K. L., Bragg, J. E., & Cummins, C. (2018). The effects of mindfulness meditation on hope and stress. *Research on Social Work Practice, 28*(6), 696-707. doi: 10.1177/1049731516674319
- 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.
- Özyesil, Z., Arslan, C., Kesici, S., & Deniz, M. E. (2011). The validity and reliability study of Mindful Attention Awareness Scale. *Education and Science, 36*(160), 224-235.
- Rahl, H. A., Lindsay, E. K., Pacilio, L. E., Brown, K. W., & David Creswell, J. (2017). Brief mindfulness meditation training reduces mind wandering: The critical role of acceptance. *Emotion, 17*(2), 224-230. doi:10.1037/emo0000250
- Rowland, Z., Wenzel, M., & Kubiak, T. (2018). A mind full of happiness: How mindfulness shapes affect dynamics in daily life. *Emotion, 20*(3), 436-451. doi:10.1037/emo0000562
- Salande, J. D., Hawkins, I., & Raymond, C. (2017). Psychological flexibility, attachment style, and personality organization: Correlations between constructs of differing approaches. *Journal of Psychotherapy Integration, 27*(3), 365.
- Sarıçalı, M., & Satıcı, S. A. (2017). Shyness as mediating role between mindfulness and psychological vulnerability. *Hitit University Journal of Social Sciences Institute, Year, 10*, 655-670.
- Scioli, A., Ricci, M., Nyugen, T., & Scioli, E. R. (2011). Hope: Its nature and measurement. *Psychology of Religion and Spirituality, 3*(2), 78-97. doi:10.1037/a0020903
- Singh, S., & Devender, S. (2015). Hope and mindfulness as correlates of happiness. *Indian Journal of Positive Psychology, 6*(4), 422-425.
- Silberstein, L. R., Tirsch, D., Leahy, R. L., & McGinn, L. (2012). Mindfulness, psychological flexibility and emotional schemas. *International Journal of Cognitive Therapy, 5*(4), 406-419.
- Snyder, C. R. (2000). Hypothesis: There is hope. In C. R. Snyder (Ed.), *Handbook of hope: Theory, measures, and applications*. (p. 3–21). Academic Press. <https://doi.org/10.1016/B978-012654050-5/50003-8>
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13*(4), 249-275.



- Snyder, C. R., & Fromkin, H. L. (1977). Abnormality as a positive characteristic: The development and validation of a scale measuring need for uniqueness. *Journal of Abnormal Psychology, 86*(5), 518-527. doi:10.1037/0021-843X.86.5.518
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*(4), 570-585. <https://doi.org/10.1037/0022-3514.60.4.570>
- Snyder, C. R., & Lopez, S. J. (2005). *Handbook of Positive Psychology*. New York: Oxford University Press.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology, 70*(2), 321-335. doi:10.1037//0022-3514.70.2.321
- Sutcliffe, K. R., Sedley, B., Hunt, M. J., & Macaskill, A. C. (2019). Relationships among academic procrastination, psychological flexibility, and delay discounting. *Behavior Analysis: Research and Practice, 19*(4), 315.
- Şimşek, Ö. F., & Demir, M. (2013). Parental support for basic psychological needs and happiness: The importance of sense of uniqueness. *Social Indicators Research, 112*(3), 661-678. doi:10.1007/s11205-012-0075-z
- Şimşek, Ö. F., & Yalınçetin, B. (2010). I feel unique, therefore I am: The development and preliminary validation of the personal sense of uniqueness (PSU) scale. *Personality and Individual Differences, 49*(6), 576-581. doi:10.1016/j.paid.2010.05.006
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Allyn & Bacon/Pearson Education.
- Tarhan, S. & Bacanlı, H. (2015). Adaptation of Dispositional Hope Scale into Turkish: Validity and reliability study. *The Journal of Happiness & Well-Being, 3*(1), 1-14.
- Ward, D. B., & Wampler, K. S. (2010). Moving up the continuum of hope: Developing a theory of hope and understanding its influence in couples therapy. *Journal of Marital and Family Therapy, 36*(2), 212-228. doi:10.1111/j.1752-0606.2009.00173.x
- Wei, M., Tsai, P.-C., Lannin, D. G., Du, Y., & Tucker, J. R. (2015). Mindfulness, psychological flexibility, and counseling self-efficacy: Hindering self-focused attention as a mediator. *The Counseling Psychologist, 43*(1), 39-63. doi:10.1177/0011000014560173
- Winter Plumb, E. I., Hawley, K. J., Conoley, C. W., & Scheel, M. J. (2020). From cosmetics to compassion: A case study of goal focused positive psychotherapy. *Psychotherapy (Chicago, Ill.)*. doi:10.1037/pst0000287
- Woodruff, S., Glass, C., Arnkoff, D., Crowley, K., Hindman, R., & Hirschhorn, E. (2014). Comparing self-compassion, mindfulness, and psychological inflexibility as predictors of psychological health. *Mindfulness, 5*(4), 410-421. doi:10.1007/s12671-013-0195-9
- Yang, Y., Zhang, M., & Kou, Y. (2016). Self-compassion and life satisfaction: The mediating role of hope. *Personality and Individual Differences, 98*, 91-95. doi:10.1016/j.paid.2016.03.086



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