Bilinçli Farkındalık ve Psikolojik Esneklik Arasındaki İlişkide Değerlerin Aracı Rolünün İncelenmesi*

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Makale Bilgisi

**ÖZET**

Anahtar Sözcükler: Kabul ve kararlılık terapisi, bilinçli farkındalık, psikolojik esneklik, değerler

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Mindfulness and Psychological Flexibility: The Mediating Role of Values

**ABSTRACT**
The present study aimed to understand how mindfulness predicted psychological flexibility when values played a mediator role in this relationship. The participants of the study were 432 undergraduate students. As data collection instruments, Acceptance and Action Questionnaire – II, Mindful Attention Awareness Scale, Valuing Questionnaire and demographic information form were used. The hypothesized model was tested by structural equation modeling. The results indicated that values fully mediated the relationship between mindfulness and psychological flexibility. The results were discussed in the light of the literature and further suggestions were provided.

Keywords: Acceptance and commitment therapy, mindfulness, psychological flexibility, values

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**1. INTRODUCTION**
Several approaches and theories have explained human behavior from different perspectives. Contextualism is a holistic and novel way of explaining human psychopathology and behavior (Hayes, Strosahl, Bunting, Twohig, & Wilson, 2010). Contextualism is a worldview in which events are ongoing actions that are inseparable from their past and current context. In other words, contextualism posits that the whole is understood in relation to its context rather than breaking into the pieces (Hayes, Strosahl, & Wilson, 2012). Third wave cognitive and behavioral approaches including Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999) in psychology have emerged in last decades and they mainly focus on a person's

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Acceptance and Commitment Therapy (ACT) has brought a new perspective to cognitive behavior therapy. With regard to this, the fundamental purpose of ACT is to increase psychological flexibility. The definition of psychological flexibility can be understood best with its emphasis on present moment awareness, valued living, and fully experiencing feelings, thoughts and urges even if they are undesired (Hayes & Lillis, 2012). Psychological flexibility can be ensured by increasing awareness in six core processes namely, present moment awareness, valued living, committed actions, self as context, cognitive defusion and acceptance (Hayes & Lillis, 2012). Acceptance is viewed as monitoring and encountering the events with intrigue and without endeavoring to transform them repulsively. Individuals cannot stay away from negative events throughout everyday life except they can endeavor to dodge undesirable sentiments identified with negative events. ACT aims at having cognitive defusion that emphasizes having a different way of relating with thoughts rather than being stuck with them. ACT underlines that it is unimaginable not to think, expel a thought from someone’s brain. Hence, the capacity of context can be changed regardless of whether relations cannot be changed between occasions. Self as context means the ability of noticing or observing oneself (Bach, Moran, & Hayes, 2008). Attention to the present moment is defined as focusing attention to now. Committed action stands for behavior change in line to values. ACT profoundly regards values chosen by the person. Values are main life domains that help individuals to find a meaning in life (Hayes et al., 2012). It is also important to understand that values are not something to be achieved but they are endless components of life.

Another way of explaining psychological flexibility is about understanding the patterns of responding. In this regard, Wilson and DuFrene (2009) stated that a psychologically flexible person is someone who has a broad, flexible potential and skills in responding to the difficulties in life. It is not a passive reaction but an open perspective to experience the events. ACT highlights that individuals have the potential to have a meaningful life. However, fused thoughts, feelings and experiential avoidance behaviors of some people interfere with valued based living actions. Therefore, a major goal of ACT is to help individuals create a feeling of life direction (Hayes, Strosahl, & Wilson, 2012). At this point it is crucial to discover the interference of an individual's values and experiential avoidance.

Experiential avoidance can be defined as one's tendency to get rid of or to avoid internal experiences such as feelings, thoughts, urges and physiological sensations, even those experiences are not in line with their values (Hayes et al., 1996). The aforementioned process of ACT, that is experiential avoidance, feeds the avoidant behaviors and makes acceptance difficult for individuals (Hayes et al., 2012). It can be problematic for individuals who desire to move towards their values. The clarification of the importance of values in the ACT perspective is important. Values and values training are the subject of various disciplines. ACT brings a different perspective to the concept of value (Hayes et al., 2012). According to Hayes and Smith (2005), values are simply more than just goals, or something to be obtained, but they are directions in life that are chosen purposefully. The chosen life direction doesn’t have an end itself and they happen in the present moment rather than past or future. For instance, while personal growth and learning can be a value for a university student which never ends, getting an A+ from a course can be considered as a goal that perfectly has an end and it is something to be achieved.

The awareness of the present moment and valued based committed actions are among the core processes in psychological flexibility. Based on this explanation, mindfulness, defined as a nonjudgmental and purposeful present moment awareness (Kabat-Zinn, 1994), has a close relationship with values thereby psychological flexibility. Even though historically, mindfulness comes from a religious background, majorly Buddhist tradition, it now has its understanding and application in modern western psychology (Armstrong, 2001). Mindfulness is not only one of the core processes of Acceptance and Commitment Therapy (Hayes et al., 2011). It is also included in Mindfulness Based Cognitive Therapy (MBCT, Segal et al., 2002) and Dialectical Behavior Therapy (DBT; Linehan, 1993). The role of mindfulness and psychological flexibility has been studied with diverse problems including chronic pain (McCracken & Velleman, 2010; MacCracken & Vowles, 2014), anxiety and depression (Masuda & Tully, 2012; Vollestad, Nielsen, & Nielsen, 2011), and general mental health ( Kashdan & Rottenberg, 2010) in various settings including adults, adolescents and children (e.g. Buki, Reich, & Lehardy, 2016; Gonzalez-Fernandez, Fernandez-Rodriguez, Paz-Caballero, & Perez-Alvarez, 2018; Öztöp, 2017).

Even though it has been found that mindfulness has positive relationship with well-being (Brown & Ryan, 2003) and studied in relation to psychopathology (Ruiz, 2014; White et al., 2013), mindfulness and acceptance has not been extensively studied in relation to different psychological problems, samples and settings (Woidneck, Pratt, Gundy, Nelson, & Twohig, 2012). On the other hand, the fact that aforementioned outcome variables have a predictive role in explaining psychological flexibility brings the question whether there can be other variables that have a strong predictive role in explaining the concept of psychological flexibility. Overall, the literature supports the view that when people have mindfulness skills, they can be more psychologically flexible and if people lead a life through the way of their values, they can have a better understanding of psychological flexibility. To be more precise, the focus of this current study is understanding mindfulness in a context and to put emphasis on the function of a mindful act whether it is just a rigid, fixated attention or serves for actions that are more dynamic and evolving. Wilson (2008) distinguishes this difference with an example of someone playing a video game with a fixated attention on the screen. We might find the act of this person with a high level of attention to the present moment, but an excessive lack of value driven action and flexibility. It is also crucial to explain the function of mindfulness from an experiential avoidance perspective. If someone uses mindfulness to escape from painful memories and other private experiences, shortly to feel good, then the relationship to his thoughts and emotions rather than on their content (Hayes, 2004). Third wave approaches also emphasized the importance of concepts such as mindfulness, acceptance and values (Hayes & Hoffman, 2017).
mindful actions of this person can be considered as experiential avoidance. Hayes and Smith (2005) state that values contain pain and one cannot value anything without being woundable. Therefore, a mindful action serves for flexibility only if it goes through value lenses.

This study is significant in several terms. First, university students generally have a goal-oriented lifestyle. Being goal oriented brings a lot of stress and anxiety in university students. On the other hand, ACT proposes a new way of experiencing life that is value-based living. Therefore, this study emphasizes the importance of exploring the values which are basically finding the direction in life instead of fighting for goals. Second, mindfulness concept has been extensively studied in relation to various variables such as psychological well-being, depression, anxiety and life satisfaction (e.g. Deniz, Erus, & Büyükcebeci, 2017; Ülev, 2014; Yıkılmaz & Gündül, 2015). However, studying mindfulness within the ACT perspective will help us to understand the present moment awareness process from a functional contextualism viewpoint. In this regard, this study will be unique in terms of bringing out the function of mindfulness which eventually leads us to understand a mindful act in a context. Third, the concept of mindfulness can be meaningful only if it is explored through values lenses which are basically shaped by the culture of an individual.

Regarding the above-mentioned literature, the current study aimed to understand how mindfulness predicted psychological flexibility when values played a mediator role. In this regard, the following research questions were asked through the study: “Does mindfulness significantly predict psychological flexibility?” and “Does “values” mediate the relationship between mindfulness and psychological flexibility?

2. METHODOLOGY

2.1. Participants

This study included 432 (344 female, 88 male) undergraduate university students from a state and a private university in Turkey. The age of participants varied between 18 to 35 \( (M = 20.59, SD = 1.81) \). Participants were recruited from Faculty of Education, mostly from Department of Psychological Counseling and Guidance (56.2%), and following, Science (11.3%), Primary Education (6.5%), Early childhood education (7.4), Turkish language (9.4%), Maths (3.2%) and Computer and Instructional Technologies (5.5%). Also, the grade level of participants was as follows: 21% first grade, 18.7% second grade, 31.8% third grade and 27.9% fourth grade and one of the participants did not indicate grade level.

2.2. Instruments

Acceptance and Action Questionnaire – II (AAQ-II; Bond et al., 2011). This scale is a common measurement of psychological inflexibility. This 7- item measurement on a 7-point Likert scale gives a total score. Obtaining a high score in the scale means having a high level of psychological inflexibility. Bond et al. (2011) revealed Cronbach’s alpha level of .84, and the test-retest reliability as .81. Sample items were as follows: “I am afraid of my feelings” and “Emotions cause problems in my life”. AAQ-II was translated into Turkish by Yavuz et al. (2016).

Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003). The scale was developed to measure participants’ mindful attentions in daily life. This 15-item measurement on a 6-point Likert type scale gives a total score. Obtaining a high score presents more mindfulness. The internal consistency coefficient was found as .82 and test-retest reliability was calculated as .81 (Brown & Ryan, 2003). The scale was adapted into Turkish by Özyesil, Arslan, Kesici and Deniz (2011). The reliability was calculated as .80 for the Turkish version of Mindful Attention Awareness Scale.

Valuing Questionnaire (VQ; Smout, Davies, Burns, & Christie, 2014). The questionnaire was developed to measure to what extent people have lived a valued living through the last week. The 10-item measurement on a 7-point Likert type scale has two subscales as progress and obstruction. Higher scores indicate that the person has been living a value-based life. The Cronbach alpha was .87 with a sample of university students. The questionnaire was adapted into Turkish by Aydn and Aydn (2017). The internal consistency coefficient was found as .78 for the Turkish version of the questionnaire.

2.3. Procedure

After getting necessary permission from the Human Subjects Ethics Committee, participants were recruited from the faculty of education by informing students about voluntary participation, confidentiality borders and the aim of the study. Researchers applied the scales in person by paper-pencil format during the class hours. It took participants nearly 15 minutes to fill out the measurement package. The data were collected in spring of 2018.

2.4. Data Analyses

SPSS 23 was utilized to summarize descriptive statistics and AMOS18 was used to test the hypothesized model. The hypothesized model was given in Figure 1 below. Assumptions for structural equation modeling were tested before analysis.
3. FINDINGS

Assumptions were checked before running the structural equation modeling (SEM). The data was screened in case of any missing values, misentry or extreme cases before running. In terms of missing data analysis, we followed Kline's (2011) suggestion to replace all missing values with mean if cases had missing data lower than 5%. Then, univariate normality was checked via histograms, skewness and kurtosis values. According to the results, the variables were found within acceptable scores suggested by Tabachnick and Fidell (2013). Also, linearity assumption was not violated according to scatterplots. However, as Mardia’s test indicated a violation of multivariate normality, item parceling, which is a way of taking one score for two or more items (Bandalos, 2002), was conducted according to item-to-construct. That is, converted order was applied after getting factor loadings for MAAS (splitted into three parcels; namely, MindIP_1, MindIP_2, MindIP_3) and VQ (splitted into two parcels based on sub-scales; namely, ValuesIP_1, ValuesIP_2) in further analysis.

Descriptive statistics were reported for exogenous, mediator and endogenous variable, respectively; mindfulness ($M=58.03, SD=10.19$), values ($M=46.57, SD=9.75$), and psychological inflexibility ($M=23.18, SD=8.55$). In addition, bivariate correlations were tested for multicollinearity and Pearson coefficients should not exceed .90 (Tabachnick & Fidell, 2013). The bivariate correlations between variables were found as follows: psychological inflexibility - mindfulness = -.32, mindfulness - values = .38, and psychological inflexibility - values = -.49.

After assumption checking, SEM analysis was used to test the hypothesized model via AMOS 18. The proposed model (see Figure 2) in which the students’ level of mindfulness was placed as the predictor of values and psychological inflexibility, and at the same time values was placed as the mediator between mindfulness and psychological inflexibility. The following fit indices were examined in the proposed model: $\chi^2$, GFI, CFI, NFI, TLI and RMSEA. Additionally, the squared multiple correlation coefficients ($R^2$) were tested to see the amount of explained variable following the fit values, direct and indirect effects. Finally, the following modifications were conducted between e4-e5, e4-e10, and e7-e10 before running the SEM analysis.

The role of mindfulness on psychological flexibility was tested before analyzing the mediating role of values. As a result of the regression analysis, mindfulness came out as a significant predictor of psychological flexibility ($\beta = -.37$) and it accounted for 14% of total variance in psychological flexibility. Followingly, it was aimed to test the mediator role of values in the proposed structural model.

As a result of model testing (See Figure 2) following fit results were emerged: $\chi^2 (66) = 171.601$, $\chi^2/df = 2.60$ and $GFI = .94$, $CFI = .94$, $NFI = .92$, $TLI = .92$, and $RMSEA = .077$. The direct, indirect, and total effects of independent variables on psychological inflexibility were also shown in Table 1. The results revealed that the previous significant relationship between mindfulness and psychological flexibility ($\beta = -.37$) became non-significant ($\beta = -.12$) when values were mediator. That is, values were found to be a full mediator in the model.

Table 1.

<table>
<thead>
<tr>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mindfulness</td>
<td>-.12</td>
<td>-.27</td>
</tr>
<tr>
<td>Values</td>
<td>-.57</td>
<td>-</td>
</tr>
</tbody>
</table>

Finally, squared multiple correlation coefficient ($R^2$) analysis revealed that 23% of total variance was explained by values and 40% was explained by psychological inflexibility.
4. RESULTS, DISCUSSION AND RECOMMENDATIONS

This study investigated how mindfulness predicted psychological flexibility when values played a mediator role. The results of the statistical analysis revealed that values fully mediated the relationship between mindfulness and psychological flexibility. Previous research has indicated that mindfulness is related to anxiety and depression (Hoffman, Sawyer, Witt, & Oh, 2010), as well as a variety of other positive variables such as well-being (Baer, Lykins, & Peters, 2012). The results of this current study revealed that mindfulness was a negatively and significantly predictor of psychological inflexibility in parallel with other recent findings with non-clinical college samples including the investigation of the role of mindfulness and psychological flexibility in relation to psychological distress (Masuda, & Tully, 2012) and the role of mindfulness skills in mood, sleep quality, self-efficacy, and perceived stress (Caldwell, Harrison, Adams, Quin, & Greeson, 2010). It is obvious that mindfulness, that is defined as an awareness that arises through paying attention, on purpose, nonjudgmentally in the present moment (Kabat-Zinn, 2005), is a strong protective factor in all forms of psychological distress. Mindfulness is also quite central in the psychological flexibility model, due to the strong emphasis on present moment awareness with an acceptance value in ACT. However, the psychological flexibility model provides more than non-judgmental present moment awareness. It is a value driven approach.

Before explaining the significance of the value driven approach relevant to this study, it is important to remember that the results of this current study also revealed that values variable was found to be a full mediator in the relationship between mindfulness and psychological flexibility. In plain language, psychological flexibility was explained by mindfulness through values. Values, in ACT model, are freely chosen life directions (Wilson, 2008) and the opposite of valued living direction is the experiential avoidances which may create a relief in the short run but reveals more problematic behaviors in the long run. The research has indicated that clarity of values, the extent to which values are freely chosen life directions, are associated with psychological distress negatively and with happiness positively (Hernandez, 2013).

Contextual behavioral science from a functional analysis perspective may help us to have a better understanding of the mediation effect of values in the proposed model. From behavior analysis and RFT perspective, it is essential to examine the function, rather than form of a behavior to fully understand it. In this sense, it is crucial to analyze a mindful act in terms of its function. If the function of a mindful act is being done in the service of chosen values, the very mindful acts can be considered as the predictors of psychological flexibility. To be more precise, mindfulness is a process of being in the here and now, rather than an act to escape from unwanted, undesired private events. If that is the case, mindfulness can perfectly serve as an experiential avoidance for an individual who uses it. Therefore, the function of mindfulness serves in the service of psychological flexibility with values component in it. Briefly, a mindful act without clear values cannot serve for psychological flexibility.

This study should not be considered without some limitations. Firstly, the results cannot be generalized to the whole population as the data were gathered from students of only two universities. The self-report nature of the data collection instruments should also be taken into consideration while interpreting the results. The results of this current study may inform the future researchers in terms of the distinction between a mindful act in the service of values, that are freely chosen life directions, and other so-called mindful actions which do not function in the service of valued living. Practitioners including psychological counselors, psychologists or other help providers can use the findings of the study while working with clients to sustain psychological flexibility. The use of value-based interventions and providing mindfulness with increased awareness of values can work more than mindfulness exercises by itself. The current study showed that values played a full mediator role in the proposed model. However, how values affect psychological flexibility is still unclear. Therefore, future research may benefit...
from examining the effect of values and mindfulness through experimental studies. Moreover, for further research, it would be beneficial to conduct studies with different samples.

5. REFERENCES


Research and Publication Ethics Statement

This research was conducted based on human subjects ethics committee approval.

Contribution Rates of Authors to the Article

The first author contributed to the introduction, method, results, and discussion sections with 60 % and the second author contributed introduction, method, results, and discussion sections with 40 %.

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Statement of Interest

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

6. GENİŞ ÖZET


Çalışmanın katılımcıları 432 lisans öğrencisi oluşturmaktadır. Katılımcıların %56.2'si Psikolojik Danışma ve Rehberlik Bölümü, %11.3'ü Fen Eğitimi, %6.5'i Sınıf Öğretmenliği, %7.4'ü Okul Öncesi Öğretmenliği, %9.4'ü Türk Dili, %3.2'si Matematik ve %5.5'i Bilgisayar ve Öğretim Teknolojileri Öğretmenliği öğrencisidir. Ayrıca, katılımcıların %21'i birinci sınıf, %18.7'si ikinci sınıf, %31.8'i üçüncü sınıf ve %27.9'u dördüncü sınıf öğrencisidir. Veri toplama aracı olarak Kabul ve Eylem Ölçeği-II, Bilinçli Farkındalık Ölçeği, Değer Verme Ölçeği ve demografik bilgi formu kullanılmıştır. Kabul ve Eylem Ölçeği-II, 7'li likert tipi 7 maddeden oluşan ve psikolojik katılığı ölçmek üzere kullanılan bir ölçme aracıdır. Ölçeğin alınan yüksek puanlar psikolojik katılığın yüksek olduğunu göstermektedir. Bilinçli Farkındalık Ölçeği, 6'lı likert tipi 15 maddeden oluşan ve günlük yaşamda bireylerin bilinçli farkındalık düzeylerini ölçmek üzere geliştirilmiştir. Ölçeğin alınan yüksek puan, bilinçli farkındalığın yüksek olduğunun göstermektedir. Değer Verme Ölçeği, bireylerin son bir haftada ne ölçüde değerleri doğrultusunda yaşadıklarını belirlemek üzere 7'li likert tipinde geliştirilmiş 10 maddeden oluşmaktadır. Ölçeğin alınan yüksek puan kişinin değerleri doğrultusunda bir yaşam sürdüğünü göstermektedir.

