Epiphany

BIG FIVE PERSONALITY TRAITS AS PREDICTORS OF MINDFULNESS: A STUDY ON A BOSNIAN SAMPLE

Sabina Alispahic

Enedina Hasanbegović-Anić

Đenita Tuce

Abstract: The goal of present study was to examine the relationship between mindfulness and Big five personality traits on Bosnian sample. We used the following instruments: Sociodemographic scale, Five Factor Mindfulness Questionnaire (FFMQ) and The Big Five Inventory. According to the results, there is a moderate and inverse correlation between mindfulness and Neuroticism, and small to moderate positive correlations with other Big five personality traits (Openness, Conscientiousness, Agreeableness and Extraversion). The results of multiple regression analysis showed that Big five personality traits explain the significant proportion of the variance for the criterion variable mindfulness and that the significant predictors for mindfulness were Neuroticism, Conscientiousness and Openness. More research is needed to explore this multi-faceted nature of both Big five personality traits and mindfulness.

Keywords: Mindfulness, Neuroticism, Extraversion, Agreeableness, Conscientiousness, Openness

Sabina Alispahić, PhD, works as Associate Professor at Department of Psychology at Faculty of Philosophy, University of Sarajevo. Her research interests are clinical and health psychology and psychotherapy. E-mail: sabina_alispahic@hotmail.com.

Enedina Hasanbegović-Anić, PhD, works as Associate Professor at Department of Psychology at Faculty of Philosophy, University of Sarajevo. Her research interests are clinical and health psychology, psychotherapy and child and adolescent psychopathology. E-mail: enedina.hasanbegovic-anic@ff.unsa.ba.

Đenita Tuce, PhD, serves as Assistant Professor at Department of Psychology at Faculty of Philosophy, University of Sarajevo. Research interests: developmental psychology, psychology of parenting, wellbeing and self-esteem in childhood and adolescence. E-mail: djenita.tuce@ff.unsa.ba.

Introduction

Since the early 2000s, research on mindfulness has been expanding rapidly. Mindfulness can be defined as the degree of awareness that is achieved by purposefully paying attention to the present moment, without judging it (Kabat-Zinn, 1994). The main aspects of mindfulness, awareness and nonjudgmental acceptance of one's moment-to-moment experience, are regarded as potentially effective antidotes against common forms of psychological distress—rumination, anxiety, worry, fear, anger, and so on—many of which involve the maladaptive tendencies to avoid, suppress, or over-engage with one's distressing thoughts and emotions (Hayes & Feldman, 2004; Kabat-Zinn, 1990). Numerous studies have shown the positive effects of increased mindfulness on life-satisfaction, vitality, self-esteem, empathy, optimism, integrity, or positive affect – and its contribution to reducing the difficulties with emotional dysregulation, depression, neuroticism, rumination, social anxiety, and wandering thoughts (Brown & Ryan, 2003; Dekeyser, Raes, Leijssen, Leysen, & Dewulf, 2008; Keng, Smoski, & Robins, 2011; Rasmussen & Pidgeon, 2011; Thompson & Waltz, 2007).

Many types of research also examine how personality traits can be related to mindfulness. One of the most empirically researched models of personality in this field is the Big five model which consists of five personality traits: Neuroticism, Extraversion, Agreeableness, Conscientiousness, and Openness to experience. Neurotic individuals are prone to anxiety, depression and irritation (John, Naumann, & Soto, 2008). Individuals who score high on Neuroticism are insecure and prone to mood swings, whereas emotionally stable individuals are calmer, more relaxed and more stable (Larsen & Buss, 2008). Individuals high on Extraversion are sociable, open to others, assertive and usually have high levels of energy (John, Naumann, & Soto, 2008). On the other hand, there are individuals who are introverted and they are usually shy, quiet and withdrawn. Agreeableness means that individual is cooperative, pleasant and friendly. Low scorers on Agreeableness are unkind, often rude, and sometimes even cruel (Larsen & Buss, 2008). Conscientious individuals are characterized by tidiness, responsibility and reliability. They are also goal-oriented, task-oriented, as well as reliable and punctual (Larsen & Buss, 2008). High scorers on Openness are original, curious, have a variety of interests and a refined taste in art and beauty (John, Naumann, & Soto, 2008). They are also creative, imaginative, and since they have a wide array of interests, they love to explore the unknown.

Giluk (2009) performed a meta-analysis where he found that mindfulness is positively correlated with Conscientiousness and inversely related to Neuroticism. West (2008) made research on adolescents, where she found that the strongest correlations where mindfulness inversely correlated to Neuroticism and between mindfulness and Openness. Baer, Smith, Hopkins, Krietemeyer, & Toney (2006) observed positive correlation between mindfulness and Openness, and inverse relationship between Neuroticism and mindfulness.

The relationship between these constructs has not been the subject of empirical research in Bosnia and Herzegovina, therefore the goal of the present study is to examine such relationship on the Bosnian sample. Since past research has shown that some personality traits like Neuroticism, Conscientiousness, and Openness are in correlation with mindfulness (Giluk, 2009; West, 2008; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) our prediction is that we will also have similar results on our sample.

Method

Participants and Design

Our sample consisted of 441 participants from the Bosnian general population (213 men and 228 women), from twelve cities in Bosnia and Herzegovina. The age range of participants was from 18 to 65 years, and the average age was M = 39.9 (SD = 13.33).

Instruments

The sociodemographic *scale* was developed by the authors of this research and it consisted from a several questions about the gender and age of participants.

Five Factor Mindfulness Questionnaire (FFMQ) was developed by Baer, Smith, Lykins, et al. (2008). FFMQ measures five components of mindfulness: observing ("I notice the aromas of things"), describing ("I am good at finding words to describe my feelings"), acting with awareness ("I find myself doing things without paying attention"), nonjudging of inner experience ("I think some of my emotions are bad and or inappropriate and I should not feel them"), and nonreactivity to inner experience ("I perceive

my feelings and emotions without having to react to them"). The participants answered 39 (questions) items on a 5-point Likert scale, ranging from 1 (very rarely or never true) to 5 (very often or always true). Alpha coefficients for Bosnian version of FFMQ that we have used in this study are ranging from .68 to .84. (Hasanbegović-Anić, Alispahić, Tuce, & Čolić, 2016).

The Big five Inventory (BFI; John & Srivastava, 1999) which is based on the Big five model, was used to assess personality traits: Neuroticism, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience. BFI consists of 44 items and uses a five-point scale of agreement. Alpha coefficients in this study range from .75 to .82.

Procedure

For the purpose of data collection, a snowball technique was used. The technique is based on the initial selection of a narrow circle of people who spread the sample themselves, referring the researcher to persons who could also be examined. During the data collection, ethical principles and standards related to psychological research were met. The participation in the research was defined on a voluntary basis, and the data collected in the research were used exclusively for scientific research purposes. The survey was anonymous, and participants had the option to refuse to participate in the survey if they wished, for no apparent reason. Participants, together with the questionnaires, were given a clear instruction with the stated purpose of the research, and the completed questionnaires were returned in sealed envelopes.

Results

The distribution of results on all measured variables varies significantly from normal to mild asymmetry (Table 1). However, given that the descriptive statistical parameters of all the variables were tested on a large sample of participants, the established values on the above measures could be explained by the size of the sample. Namely, according to Field (2009), small standard errors are typical for large samples, which result in significant values on normality and symmetry measures, even in the case of very small deviations. Accordingly, when it comes to large sample participants (200 or more), the basic recommendation is the visual inspection of the

distribution form and the value of the symmetricity and flattening index instead of testing their significance (Field, 2009). In accordance with the above recommendation, in the next step, we analyzed the graphic representations of the QQ plot, which established that the deviations from the average values are not so significant. Accordingly, all variables were introduced in the form of a gross result in further analysis.

Table 1. *Descriptive statistics for Big five personality traits and mindfulness*

Scale	N	M	SD	Skew-ness	Kurtosis	K-S z[a]
Mindfulness	428	129.63	14.77	.03	-.04	.05**
Neuroticism	434	25.57	6.32	.43	.20	.08**
Extraversion	435	37.09	6.92	-.47	-.11	.06**
Agreeableness	435	43.41	5.11	-1.01	1.24	.11**
Conscientiousness	435	41.76	5.80	-.84	.64	.11**
Openness	426	37.73	6.18	-.36	.14	07*

[a]One-Sample Kolmogorov-Smirnov Test; ** Significance at the 0.01 level (2-tailed)

The results of the correlation analysis between Big five personality traits and mindfulness are presented in Table 2.

Table 2. *Correlations between Big five personality traits and mindfulness*

Variable		1.	2.	3.	4.	5.	6.
1.	Neuroticism	-	-.34**	-.43**	-.41**	-.36**	-.41**
2.	Extraversion		-	.30**	.21**	.43**	.23**
3.	Agreeableness			-	.62**	.34**	.21**
4.	Conscientiousness				-	.46**	.40**
5.	Openness					-	.41**
6.	Mindfulness						-

** Significance at the 0.01 level (2-tailed)

The results of the correlation analysis indicate that the intercorrelations between mindfulness and all Big five personality traits are statistically significant. There is a moderate and inverse correlation between mindfulness and Neuroticism (r=-.41; p<.01), moderate and positive with Openness (r=.41; p<.01) and Conscientiousness (r=.40; p<.01), and small and positive with Agreeableness (r=.27; p<.01) and Extraversion (r=.23; p<.01). Since intercorrelations between predictor variables are significant, we have tested multicollinearity. The acceptable values of the VIF test (VIF≤2) were determined, indicating that the data is suitable for the implementation of regression analysis (Field, 2009).

In determining the significance of the predictors for mindfulness, we conducted multiple regression analysis. The predictor variables were the Big five personality traits (Neuroticism, Extraversion, Agreeableness, Conscientiousness, and Openness), and the criterion variable was the total result on mindfulness scale. The main results of the multiple regression analyses are presented in Table 3.

Table 3. *Results of the multiple regression analyses with mindfulness as criterion variable*

Predictors	r	Beta (β)[a]
Neuroticism	-.41**	-.25**
Extraversion	.23**	.02
Agreeableness	.21**	.06
Conscientiousness	.40**	.22**
Openness	.41**	.22**
R=.523		
R^2=.273		
F=30.68		

[a] Standardized Coefficient; ** Significance at the 0.01 level (2-tailed)

Big five personality traits explain 27,3% of the variance for the criterion variable mindfulness (R^2=.273). The significant predictors for mindfulness are Neuroticism (β=-.25, p<.01), Conscientiousness (β=.22, p<.01), and Openness (β=.22, p<.01). These results suggest that individuals who scored higher on Neuroticism have lower results on mindfulness, and individuals with higher results on Conscientiousness and Openness also have higher results on mindfulness.

Discussion

The goal of this research was to examine the relationship between mindfulness and Big five personality traits. According to the results, there is moderate and inverse correlation between mindfulness and Neuroticism, and small to moderate positive correlations with other Big five personality traits (Openness, Conscientiousness, Agreeableness and Extraversion).

Results of multiple regression analysis showed that Big five personality traits explain a significant proportion of the variance for the criterion variable mindfulness. The significant predictors for mindfulness were Neuroticism, Conscientiousness and Openness. Our results are generally in accordance with previous research (Giluk, 2009; West, 2008; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). The significant correlation between Neuroticism and mindfulness can be explained with the interpretation that individuals low on Neuroticism are more anxious and therefore more oriented on the future and not on "here and now". Since FFMQ measures five components of mindfulness: observing, describing, acting with awareness, nonjudging of inner experience and nonreactivity to inner experience, many of these components could be related to these Big five personality traits. For example, emotional stability includes aspects related to the control of the tension and the ability to maintain control over own behavior. A high score on this dimension of personality is achieved by individuals who are less anxious, sensitive, impulsive and impatient, and generally less irritable (Barbaranelli et al., 2003). Neuroticism is also a general tendency to experience negative emotions such as sadness, fear, agitation, anger, guilt, etc. The tendency to experience such emotions is a general vulnerability and disrupts adaptation. Such people react irrationally, they have weak control of impulses, and have less capacity to overcome stressful situations (McCrae and Costa, 1992; Knežević et al., 2004). They also

have a tendency to use more non efficient strategies for coping (Costa & McCrae, 1992). Conscientiousness is also a significant predictor of mindfulness. This could be explained by the idea that mindfulness is conscious and intentional awareness, not just passive or habitual (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Conscientiousness implies that the person acts with awareness and within the Big five model it is conceptualized as the ability of self-control in the sense of disciplined aspirations to goals and strict adherence to own principles. It is bursting with the processes of planning, organization, performance of duties and obligations. Conscientious people are strong-willed, goal-oriented, scrupulous, accurate and reliable. Also, high Consciousness is often associated with academic and professional success and more successful behavioral regulation (Knežević et al., 2004). Experience of Openness implies aesthetic sensuality, intellectual curiosity, preference of diversity, the need for change and independence of thought. Such persons are open minded towards inner experiences and curious towards the outside, and more intensively they perceive both positive and negative emotions (Knežević et al., 2004). The relation between mindfulness and Openness could be explained with the idea that both are connected with curiosity, attention and receptivity. Individuals who are more open to new experiences are more willing to try new strategies and explore the inner world (Giluk, 2009).

Conclusion

The results of this research confirm previous findings suggesting that Big five personality traits are related to mindfulness. The results of multiple regression analysis showed that Big five personality traits explain 27% proportion of the variance for the criterion variable mindfulness and the significant predictors were Neuroticism, Conscientiousness and Openness. This study was the preliminary research about the correlation between Big five personality traits and mindfulness in Bosnia and Herzegovina, so we hope that it will be only the beginning of empirical research about this topic. We also hope that these results will provide inspiration for more extensive future research about mindfulness and correlated constructs.

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