

Psychological Concomitants of Mindfulness

Master's Thesis in

Peace, Mediation and Conflict Research

Developmental Psychology

Tijana Anić, 42077

Supervisor: Karin Österman

Faculty of Education and Welfare Studies

Åbo Akademi University, Finland

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Abstract

Aim: The aim of the study was to investigate the relationships of mindful attention awareness and self-esteem, sense of coherence, depression, anxiety and hostility in a Serbian sample.

Method: A questionnaire was completed by 405 respondents, 353 females and 52 males, living in Serbia. The age range was between 18 and 45 years. The mean age was 21.8 years ($SD = 3.8$) for females and 21.8 ($SD = 4.4$) for males. The questionnaire included scales for measuring mindful attention awareness (Brown, & Ryan, 2003), self-esteem (Rosenberg, 1965), sense of coherence (Antonovsky, 1993), depression, anxiety, and hostility (Derogatis, 1975).

Results: All scales in the study correlated significantly with each other. Mindful attention awareness correlated positively with self-esteem and sense of coherence and negatively with depression, anxiety, and hostility. Age did not correlate with any of the scales. Males reported significantly higher levels of mindfulness than females. Females scored significantly higher on depression and anxiety than males, no sex differences were found for self-esteem, sense of coherence or hostility. Respondents with a higher level of mindfulness than the average scored significantly higher on self-esteem and sense of coherence, and significantly lower on depression, anxiety and hostility than those with a low level of mindfulness.

Conclusions: A high level of mindfulness was associated with high levels of self-esteem and sense of coherence, and low levels of depression, anxiety and hostility.

Keywords: Mindfulness, self-esteem, sense of coherence, depression, anxiety, hostility, sex differences, Serbia

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List of abbreviations

BA - behavioural activation

BSE - basic self-esteem

CBSE - competence-based self-esteem

EBCT - Exposure-Based Cognitive Therapy for Depression

EI - emotional intelligence

GAD - generalised anxiety disorder

HAS - hostile attribution style

FFMQ - Five Facet Mindfulness Questionnaire

MABI - Mindfulness and Acceptance Based Intervention

MAGT - Mindfulness and Acceptance Based Group Therapy

MBCT - Mindfulness-Based Cognitive Therapy

MBI - mindfulness-based intervention

MBT - mindfulness-based treatment

MBSR - Mindfulness-Based Stress Reduction

MBT - Mindfulness-Based Therapy

SAD - social anxiety disorder

SFM - Soles of the Feet Meditation

1. Introduction

1.1 Aim of the study

The aim of the study was to investigate the relationships of mindful attention awareness and self-esteem, sense of coherence, depression, anxiety and hostility in a Serbian sample.

1.2 Definitions of Mindfulness

Mindfulness is a state of consciousness in which attention is directed toward the present moment in a way that is accepting and non-judgmental of arising thoughts, emotions and bodily sensations (Brown & Ryan, 2003).

Because of various conceptualisations of mindfulness it can be observed and measured either as a single construct or researched based on its various facets. The facets are specific components and processes present in mindfulness practice. In the present study, mindfulness is seen and measured as a single construct. Research on psychometric properties of different mindfulness questionnaires has found five distinct facets of mindfulness: observation, description, acting with awareness, nonjudgement of inner experience, non-reactivity to inner experience. These facets can be measured with the Five Facet Mindfulness Questionnaire (FFMQ) (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Other components that are proposed and measured in mindfulness research are awareness, attention, openness, letting go, acceptance and non-aversion (Baer, et al., 2008). Furthermore, mindfulness can be understood as a trait or a state, reflecting both between-person, more permanent, tendencies and within-person fluctuations in mindfulness that can be registered in everyday life (Brown & Ryan, 2003). Another distinction is made between dispositional mindfulness, a person's ability to be naturally mindful, and trained mindfulness, which can be taught, learned and practiced (Rau & Williams, 2016).

1.3 Age and Sex Differences in Mindfulness

Age and sex differences in mindfulness are rarely the primary focus of research. Among studies where it was the primary focus, results indicate that older people are more mindful than younger (Hohaus & Spark, 2013; Alispahic & Hasanbegovic-Anic, 2017), that there is a statistically significant sex difference on some facets of mindfulness (Alispahic & Hasanbegovic-Anic,

2017), and that women show greater increases in mindfulness compared to men after mindfulness-based interventions (Rojiani, Santoyo, Rahrig, Roth, & Britton, 2017).

In mindfulness research conducted with primary focus other than sex or age differences in mindfulness, the specific topic or aim of the research varies. These topics include individual differences in dispositional mindfulness, associations of various psychological processes such as rumination with mindfulness and short and long-term effects of mindfulness treatments or interventions. All this is done across various populations, including varieties in age and culture and different psychological instruments are used, even when measuring the same construct. Within this context, results regarding sex and age seem to vary from existing sex (Peters, et al., 2015; Eisenlohr-Moul, Peters, Pond, & Dewall, 2016) and age differences (Borders, Earleywine & Jajodia, 2010; Peters, et al., 2015; Yusainy & Lawrence, 2014) to no sex (Borders, Earleywine & Jajodia, 2010; Mcindoo, File, Preddy, Clark, & Hopko, 2016; Bajaj, Robins, & Pande, 2016; Lundh, Karim, & Quilisch, 2007; Koole, Govorun, Cheng, & Gallucci, 2009) or age differences (Gallagher, Hudepohl, & Parrott, 2010; Bergen-Cico & Cheon, 2014). Additionally, there is a study that provides evidence for the long-term benefits of regular mindfulness practice for the elderly (Fountain-Zaragoza & Prakash, 2017).

1.4 Mindfulness and Self-Esteem

Self-esteem has been defined as the evaluation of the self, regarding competence and worth when facing challenges in life and it can be observed either as a trait or a state (Randal, Pratt, & Bucci, 2015).

Pepping, O'Donovan and Davis (2013) found that four out of five facets of mindfulness (non-reactivity, awareness, labelling and non-judgement) were associated positively with high self-esteem, while observing as a facet of mindfulness showed no connection with self-esteem. Higher self-esteem was also positively related with life satisfaction. The same research group tested the effect of mindfulness intervention on self-esteem. Both state mindfulness and state self-esteem were significantly higher post-intervention.

Results of a study on the relationship between dispositional mindfulness, self-esteem and social anxiety using self-report measures have indicated that mindfulness is positively correlated with self-esteem, and negatively correlated with social anxiety, the second relation being partially mediated by self-esteem (Rasmussen & Pidgeon, 2011).

Since there were suggestions in the literature that mindfulness and unconditional self-acceptance could be alternative concepts to self-esteem, Thompson and Waltz (2008) set out to

explore how these three constructs are related. Results of their study show significant positive correlations between mindfulness, self-esteem and unconditional self-acceptance.

Competence-based self-esteem (CBSE) can be understood as a compensation through achievement in a particular professional field for low basic self-esteem (BSE) which in turn can lead to burnout. A study by Rajamäki (2011) investigated how these concepts are connected with mindfulness induced by the programme Mindfulness-Based Stress Reduction (MBSR) conducted over eight weeks. The programme aims at developing mindfulness through exercises in order to help patients deal with pain and stress. According to results based on self-reports post MBSR, mindfulness and BSE were significantly increased, while burnout and CBSE had decreased significantly.

In order to better understand the relationship between mindfulness and self-esteem, Park and Dhandra (2017) studied four facets of emotional intelligence as potential mediators between mindfulness and its positive effect on self-esteem. Their results showed that mindfulness had both a direct influence on self-esteem, and an indirect influence through increased emotional intelligence (EI). The ability to direct emotions into productive action as a facet of EI was found to be a significant mediator of the association between mindfulness and self-esteem.

Haertel (2016) studied the relationship between mindfulness, self-esteem, fragile self-esteem and a hostile attribution style (HAS). According to the findings, mindfulness was negatively correlated with HAS, low self-esteem was positively correlated with HAS, and high self-esteem was positively correlated with mindfulness. Mindfulness was found to be a mediator between self-esteem and HAS.

In a study of Irish adolescents that investigated the connection between mindfulness and wellbeing, it was found that dispositional mindfulness was a significant predictor of self-esteem and well-being (Stokes, 2013).

Lundh, Karim, and Quilisch (2007) studied self-esteem, mindfulness and self-harm among Swedish adolescents. It was found that high levels of self-harm were negatively correlated with both mindfulness and self-esteem.

Expanding on findings of differences between implicit and explicit self-esteem, results of a study by Koole, Govorun, Cheng, and Gallucci (2009) showed that mindfulness enhanced by meditation decreased the gap between implicit and explicit self-esteem.

In a review, Randal, Pratt, and Bucci (2015) investigated 32 studies on the association between mindfulness and self-esteem, and studies on the effects of different mindfulness-based interventions (MBIs) on self-esteem. Studies consistently showed that there was a significant

positive association between mindfulness and self-esteem. Despite methodological flaws, studies on the effects of MBIs on self-esteem indicate significant improvement in self-esteem after the mindfulness intervention.

1.5 Mindfulness and Sense of Coherence

Sense of coherence is the tendency to perceive life and the world as being structured and predictable (comprehensible), to see problems as solvable (manageable), and the efforts invested in facing those problems worthy of being carried out (meaningful). These characteristics help individuals in difficult times by enhancing their coping mechanisms and flexibility (Antonovsky, 1993).

The effect of the MBSR programme was tested among female patients with fibromyalgia, a chronic rheumatic condition (Weissbecker, Salmon, Studts, Floyd, Dedert, & Sephton, 2002). The results showed that patients reported higher levels of sense of coherence post MBSR compared to the control group.

In a study of stress response of nurses, a significant increase in sense of coherence and a significant decrease in general health symptoms, such as physical symptoms, sleep difficulties, anxiety, and depression, were found post MBI compared to the control group (Ando, Natsume, Kukihara, Shibata, & Ito, 2011). Another study was carried out with patients with atrial fibrillation, a condition in which the heart has an irregular beat. It was found that post Mindfulness-Based Cognitive Therapy (MBCT) there was a significant increase in health-related quality of life and a significant decrease in psychological distress compared to the control group at a 12 month follow-up. Effects on the quality of life were strongly mediated by a significant increase in sense of coherence (Malm, et al., 2018).

In a study aiming to further understand the long-term impacts of programmes such as the MBSR on patients with physical illness, it was found that an increase in mindfulness was associated significantly with reduction in stress, medical and depressive symptoms, as well as with an increase in sense of coherence (Dobkin & Zhao, 2011).

Dobkin (2008) conducted a study based on quantitative and qualitative data with patients treated for cancer in order to better understand the mechanisms that induce change during MBSR programmes. A significant increase in mindfulness, engagement in self-care, and sense of coherence were registered. The quantitative data were in accordance with the qualitative reports.

Breast cancer patients who had received medical treatment were exposed to MBSR in a study with control groups (Sarenmalm, Mårtensson, Andersson, Karlsson, & Bergh, 2017). Effects at a three month follow-up were registered with psychological and physical measures covering overall wellbeing. The results showed a significant decrease in depression and distress, and a significant increase in mindfulness, post traumatic growth, coping capacity understood through sense of coherence, and an improved immune response.

Another study explored the effects of MBSR in a German sample of patients with various illnesses based on qualitative and quantitative data (Majumdar, Grossman, Dietz-Waschkowski, Kersig, & Walach, 2002). Although there was a significant reduction in distress, a significant improvement in quality of life and wellbeing, and overall satisfaction with the programme, there were no significant changes in sense of coherence pre to post intervention.

1.6 Associations between Mindfulness and Depression and Anxiety

Depressive mood and anxiety can be normal responses in the daily life of many people, but they can also take pathological forms. Depression and anxiety disorders are characterised by a prolonged duration of the symptoms associated with them and an impairment in the ability to adequately respond to everyday situations.

Depression is a mood disorder that impacts thoughts, feelings and behaviour. It can be characterised with a lack of interest in activities, a sense of worthlessness and hopelessness, trouble sleeping, changes in appetite and food intake and possible presence of suicidal thoughts. Anxiety is a mood disorder marked with thoughts and feelings of fear and panic, sometimes about the future, followed by accompanying physical symptoms of restlessness, sweaty hands, shakiness, and irregular or quick heartbeat.

In a study exploring the relationship between mindfulness, a wandering mind and depression, it was shown that mindfulness was significantly negatively correlated with depression and a wandering mind (Deng, Li, & Tang, 2012).

Rumination is characterised by repeated negative thoughts that can sometimes be extreme, intrusive, and uncontrollable. Alleva, Roelofs, Voncken, Meevissen, and Alberts (2012) examined the relationship between mindfulness, rumination and depressive symptoms, by studying four facets of mindfulness (observing, describing, awareness and non-judgement) and two forms of rumination (brooding and reflective pondering). Brooding mediated the negative association between depression and mindfulness skills of awareness and acceptance without

judgement, while reflective pondering mediated the negative association between depression and the observing facet of mindfulness.

In a study of factors that predict individual differences in naturally occurring mindfulness, it was found that trait anxiety and attachment anxiety were negatively associated with mindfulness. Attentional control predicted mindfulness and partially mediated the relationship between mindfulness and anxiety (Walsh, Balint, Sj, Fredericksen, & Madsen, 2009).

Teachers have reported improvement in attention and reductions in anxiety and depression in a study exploring the applicability of mindfulness for children with anxiety (Semple, Reid, & Miller, 2005).

In two studies mentioned in an article by Roemer, et al. (2009), the associations between emotional regulation and levels of mindfulness were investigated. Difficulties in emotional regulation and low levels of mindfulness were positively associated with generalised anxiety disorder in both a clinical and a nonclinical sample.

Lepera (2011) examined connections between mindfulness as purposeful direction of attention to the present moment and boredom proneness as a result of deficits in attention. The results showed that mindfulness was negatively correlated with boredom proneness, anxiety, depression, and substance use.

In a study by Mamić (2016), the connections between anxiety, depression, negative perfectionism, rumination, intolerance of uncertainty, and mindfulness were examined in a Croatian sample. Both anxiety and depression were negatively correlated with mindfulness. Low levels of mindfulness predicted high levels of anxiety and depression and lower levels of anxiety and depression were found in the high mindfulness group compared to the low mindfulness group.

Bajaj, Robins, and Pande (2016) explored the possible mediating role of self-esteem on the association between mindfulness and anxiety and depression. The results showed negative correlations between mindfulness and anxiety and depression and positive correlation between mindfulness and self-esteem. Self-esteem was found to mediate between both mindfulness and depression, and between mindfulness and anxiety.

A study investigating mindfulness, self-esteem and depression, it was shown that mindfulness was positively associated with self-esteem and negatively associated with depression. It was also found that mindfulness moderated the relationship between self-esteem and depression (Michalak, Teismann, Heidenreich, Ströhle, & Vocks, 2011). Although the moderating effect was significant for both high and low mindful individuals, the intensity of

this relation was different for the two groups. Self-esteem was more closely related to depression in individuals with low mindful acceptance than in those with high mindful acceptance.

A number of studies have investigated the effects of Mindfulness-Based Cognitive Therapy (MBCT) on levels of anxiety and depression. Patients who had failed to fully recover from depression through other types of treatment showed a significant improvement in depressive symptoms post MBCT (Kenny & Williams, 2007). The effect sizes were relatively large. In another study with the same type of patients, a significant improvement was found. Depressive symptoms reduced from severe to mild in the MBCT group compared to the control group (Barnhofer, et al., 2009). Additionally, in the MBCT group there were fewer individuals who met the criteria for depression post-treatment compared to the controls.

In a randomised control study, individuals with mild to moderate depression and anxiety showed a significant reduction in symptoms of depression and a significant increase in mindfulness, mental flexibility, and general mental health post MBCT (Pots, Meulenbeek, Veehof, Klungers, & Bohlmeijer, 2014).

A randomised control study of sub-clinically depressed individuals explored the effects of MBCT (Kaviani, Hatami, & Javaheri, 2012). Reduction in depression, anxiety, occurrence of negative automatic thoughts and dysfunctional attitudes, and increase in quality of life, and ability to deal with stressful situations before, during and after the stressful event were registered post MBCT. These effects were proposed to be a result of disengagement from ruminative thoughts and images.

In a study investigating depression understood as a result of a failure to suppress parallel irrelevant mental-sets, it was shown that increased mindfulness positively correlated with the capability to successfully suppress alternative irrelevant mental-sets competing for attention (Greenberg, Shapero, Mischoulon, & Lazar, 2016). This outcome was related to a significant decrease in depressive symptoms post MBCT.

Among patients with generalised anxiety disorder (GAD) significant reductions in anxiety and depressive symptoms were registered post MBCT, although no statistically significant increase in mindfulness was registered (Evans, et al., 2008). MBCT has also been studied as an addition to pharmacological treatment of patients with GAD and panic attacks. Significant decreases in anxiety and depression were registered in the MBCT group compared to a control group that received education on anxiety (Kim, et al., 2009).

Another intervention often used in practice and research as a possible treatment for anxiety and depression is Mindfulness-Based Stress Reduction (MBSR). Results have shown significant increase in overall wellbeing and mindfulness, and decrease in rumination and depressive symptoms post MBSR in a community sample (Deyo, Wilson, Ong, & Koopman, 2009).

After participating in an intensive MBSR programme including continuous post intervention practice, individuals diagnosed with anxiety disorder showed both subjective and objective improvement on levels of anxiety, panic, and depression at a three year follow-up (Miller, Fletcher, & Kabat-Zinn, 1995).

Application and effects of MBSR were tested on a sample with a wide range of anxiety disorders in a randomised control study design (Vøllestad, Sivertsen, & Nielsen, 2011). Results indicate moderate to high positive effects on reduction of anxiety and depression at a six month follow-up and an increase in trait mindfulness compared to the control group.

A randomised control study of patients diagnosed with GAD showed significant reduction on measures of anxiety used in the study, improvement in coping and resilience in stress response laboratory task, and increased likelihood to agree with positive self-statements post MBSR (Hoge, et al., 2013).

A study on neural correlates of effects of MBSR on patients with GAD found a significant reduction in symptoms of GAD post intervention (Hölzel, et al., 2013). The changes were registered in the brain as decreased reactivity of the amygdala to ambiguous neutral stimuli, and improved connectivity of the amygdala with prefrontal areas of the brain compared to control group.

Exploration of the efficacy of MBSR programme in treatment of GAD revealed that the effect of the intervention on the symptoms was mediated by increase in mindfulness and decentering, measured as an increased capacity to observe arising thoughts without identifying with them (Hoge, et al., 2015).

In a review article, Toneatto and Nguyen (2007) analysed 15 articles that explored the efficacy of MBSR in clinical populations. The outcomes of the interventions were measured as changes in levels of anxiety and depression. The authors of the review concluded that the effects of MBSR on anxiety and depression were ambiguous. Benefits were mostly seen in studies without a control group. However, MBSR reduced relapse of depression after the treatment.

A number of other mindfulness based interventions have been examined. Kumar, Feldman, and Hayes (2008) studied the effectiveness of an integral multi-component Exposure-Based

Cognitive Therapy for Depression (EBCT) that includes training in mindfulness. A significant increase in mindfulness was found and a linear corresponding decrease in depression, and two strategies of emotion regulation: rumination and experiential avoidance post treatment in individuals diagnosed with major depressive disorder.

Mindfulness and Acceptance Based Interventions (MABI) were examined in nineteen studies in populations diagnosed with various anxiety disorders (Vøllestad, Nielsen, & Nielsen, 2012). The results indicated a significant reduction in anxiety and comorbid depressive symptoms, and increase in quality of life.

Mindfulness and Acceptance Based Group Therapy (MAGT) was studied as an intervention for individuals diagnosed with social anxiety disorder (SAD). A significant reduction was found in social anxiety, depression and rumination. A significant increase was found in mindfulness and acceptance, that could still be registered at a three month follow-up (Kocovski, Fleming, & Rector, 2009).

Mindfulness-Based Therapy (MBT) was compared to Behavioural Activation (BA) in a randomised control study of college students with depressive symptoms (Mcindoo, File, Preddy, Clark, & Hopko, 2016). A significant reduction in depressive symptoms, rumination and stress were found. Levels of mindfulness had increased significantly in the MBT condition compared to the BA and control groups. However, neither of the two methods have successfully addressed somatic anxiety. MBT was also studied as a method used in a case study of a single college student with intermittent depression and GAD (Preddy, Mcindoo, & Hopko, 2013). Findings indicated a significant decrease in depression and anxiety, and a significant increase in quality of life.

The effects of mindfulness meditation were explored in a sample of students with learning disabilities (Beauchemin, Hutchins, & Patterson, 2008). Improvement in state and trait anxiety, increased social skills, and greater success in academic performance were registered as outcomes. Three different types of mindfulness meditation were investigated in another study exploring the effect on negative and positive affect, anxiety and hope (Sears & Kraus, 2009). The authors report a decrease in negative affect and anxiety, and increase in positive affect and hope post meditation. Reduced presence of cognitive distortions appeared as a mediator. Trait anxiety decreased significantly and mindfulness and self-compassion increased post meditation compared to control group (Bergen-Cico & Cheon, 2014). Mindfulness was found to mediate effects of meditation on wellbeing through reduced anxiety and increased self-compassion.

Several review articles provide summaries of findings on mindfulness, depression and anxiety. Strauss, Cavanagh, Oliver, and Pettman (2014) reviewed 12 studies on patients with anxiety and depression. The patients were participating in mindfulness-based interventions (MBI). The authors conclude that there was a significant reduction in symptom severity post MBI for depression, but not for anxiety. The effect appeared in studies with an inactive control group, but not in studies with an active control group.

Studies on the effects of mindfulness meditation, or MBI, on mindfulness, anxiety and stress in college students were reviewed by Bamber and Schneider (2016). Out of 40 studies on anxiety, 33 reported a significant decrease in anxiety. In 25 out of 34 studies a significant reduction in stress was found and a significant increase in mindfulness was registered in 22 out of 24 studies post intervention.

Roemer and Orsillo (2002) reviewed studies on the treatment of GAD. Based on empirical evidence and with theoretical support they proposed an integrated model of mindfulness and cognitive approaches in the treatment of GAD.

1.7 Mindfulness and Hostility

Hostility can be seen as enduring anger or resentment after repeated or extended encounters with frustration. Frustration can include impulses to express anger and to reciprocate. Although it can be normal and healthy to sometimes experience anger, hostility can present major problems in everyday life if it takes serious or chronic forms (Singh, et al., 2007; Wright, Day, & Howells, 2009).

In a study examining associations of mindfulness measured with the Mindful Attention Awareness Scale (MAAS) (Brown & Ryan, 2003) and a number of psychological well-being variables, a negative association was found between mindfulness and hostility and depression (Brown & Ryan, 2003). In the same study mindfulness was also found to be significantly negatively correlated with rumination.

Heppner and Kernis (2008) explored the relationship between mindfulness and aggressive behaviour. A significant negative association was found between mindfulness and self-reported aggressiveness. When the level of mindfulness was a part of an experimental procedure, they measured how more mindful individuals reacted to threat compared to less mindful individuals. It was found that more mindful individuals expressed less aggression in response to rejection compared to individuals who were less mindful.

Another study examined level of mindfulness in relation to frequency and amount of alcohol consumption and sexual aggression in intimate partner relationships (Gallagher, Hudepohl, & Parrott, 2010). It was found that men who drank frequently engaged in sexual aggression toward their partners more frequently. The association was found for men with low self-reported mindfulness, but not for men with high levels of mindfulness.

Meditation on the soles of the feet is a form of mindfulness practice, where a person focuses on the soles of their feet as an emotionally neutral and familiar stimulus. A study was conducted on three individuals who suffered from severe and enduring mental illness (Singh, et al., 2007). They were taught to apply the Soles of the Feet Meditation (SFM) in situations that provoked physical or verbal aggression. Aggressive behaviour is one of the factors that makes integration into a community difficult for people who have been patients in a psychiatric institution (Singh, et al., 2007). It also keeps them in the cycle of repeated hospitalisation. The study showed that the method was successful in reducing aggression. No physical aggression and significantly reduced levels of verbal aggression were recorded at a four year follow-up.

Wright, Day and Howells (2009) investigated problematic anger and its cognitive, emotional, physiological, and behavioural components. The authors propose integrating mindfulness-based approaches with empirically tested cognitive-behavioural interventions when it comes to anger management. Some of the proposed mechanisms behind the effects of mindfulness on problematic anger are an increased tolerance of the experience of anger, taking a distanced approach and observing the anger without necessarily acting on it, greater flexibility and choice in expression of anger, increased relaxation and presence of positive emotions.

Borders, Earleywine, and Jajodia (2010) draw on previous findings that there is a negative association between mindfulness and aggression-related constructs such as anger and hostility. The authors explain the association through mediating effects of rumination, understood as presence of intrusive and repetitive negative thoughts that can exacerbate hostility, anger and aggression. They found mindfulness to be negatively correlated with all aggression-related measures, including hostility. Support for rumination as a mediator was not consistent, since it mediated the effects of mindfulness on anger and hostility but was less consistent for physical and verbal aggression.

In a study by Eisenlohr-Moul, Peters, Pond, and Dewart (2016), it was shown that mindfulness, both as a trait and a state (between and within person variability), predicted lower levels of aggression. The study also examined the influence of anger intensity and anger

rumination on negative correlation of state and trait mindfulness with aggression and found both factors to be partial mediators of the association.

Peters et al. (2015) studied how mindfulness decreased aggression through decreased angry rumination. Non-judgement of arising thoughts facet of mindfulness was associated significantly with reduced angry rumination and decreased aggression. However, no causal conclusions can be drawn since this was a correlational study.

Ego-involvement and hostile attribution bias are introduced as potential factors to consider in mindfulness-based interventions for aggression, as they lead to aggression and are decreased through mindfulness (Heppner & Kernis, 2008). Ego-involvement is a set of behaviours used to increase or maintain an unstable self-esteem, and hostile attribution bias is a tendency to read in harmful instead of benevolent intent of other people towards oneself.

Yusainy and Lawrence (2014) investigated the relationship between mindfulness, self-control and two forms of aggression – towards others and towards self (self-harm). Mindfulness and self-control were positively correlated, and negatively correlated with both harm of others and self-harm. A mediating role of self-control was found in the relationships between mindfulness and physical aggression, anger, hostility, and self-harm, but not with verbal aggression. A direct effect of mindfulness on trait aggression, anger and hostility remained significant when self-control was introduced, which was not the case for physical aggression and self-harm.

Fix and Fix (2013) conducted a review of 11 studies on the effectiveness of Mindfulness-Based Treatments (MBT) on aggression in adolescent and adult populations. Studies in the group design showed moderate effects of MBTs on lowering aggression, while studies with individuals provided strong support for the reduction of aggression post MBTs. The authors are cautious when drawing conclusions because of the methodological downsides of studies.

1.8 Limitations of the Studies

A number of limitations have been pointed out in the studies in the field of mindfulness. These limitations raise concerns for the validity of results in mindfulness research, even in cases where the results consistently point to the same outcomes.

To begin with, there is no single, universally adopted definition of mindfulness. Although the definitions used are similar, researchers point out that an agreement on a single definition would contribute to greater clarity and precision when conducting research and reaching conclusions.

It is also apparent that mindfulness can be approached both as a trait and a state, and that scientists either register the presence of mindfulness as it is found in the sample, reflecting existing individual differences, or they measure mindfulness pre and post a certain intervention. Interventions vary from mindfulness meditations to various psychotherapeutic interventions that incorporate more or less mindfulness elements. Furthermore, studies either focus on outcomes of interventions or on better understanding mechanisms of effectiveness in reaching the outcomes. This is done through exploring possible mediating and moderating factors. Although these different approaches contribute to the results, they also create problems when trying to compare and analyse results of studies on a meta level.

Mindfulness research sometimes reports negative effects of mindfulness on psychological wellbeing (Lustyk, Chawla, Nolan, & Marlatt, 2009). An explanation often used by mindfulness practitioners, researchers and authors in response to the critique of mindfulness based on these findings is that the findings are a result of a misunderstanding of mindfulness practice. An effort is made to develop standards and guidelines in research and application of mindfulness and to ensure adequate training and certification of practitioners.

Another limitation of studies on mindfulness is the lack of control groups. Although there are studies that use a control group, lack of one is often reported as a limitation of the study. Additionally, there is a difference in whether control groups are active or inactive and if the research design is randomised or not.

Methodological limitation pointed out is the fact that most of the studies are correlational and not causal, putting constraints on the ability to reach conclusions about causality. Reliance on self-report measures is another methodological strategy that is cited as a limitation of the study, pointing to the lack of measures that could be considered more objective.

1.9 Hypotheses and Research Questions

Based on previous research and in accordance with the aim of the study to explore psychological concomitants of mindfulness in a Serbian sample, the following hypotheses were made:

Hypothesis 1: Mindfulness was expected to correlate positively with self-esteem (Rasmussen & Pidgeon, 2011; Thompson & Waltz, 2008; Haertel, 2016; Randal, Pratt, & Bucci, 2015; Bajaj, Robins, & Pande, 2016).

Hypothesis 2: Mindfulness was expected to correlate positively with sense of coherence (Dobkin & Zhao, 2011; Weissbecker, Salmon, Studts, Floyd, Dedert, & Sephton, 2002; Ando, Natsume, Kukihara, Shibata, & Ito, 2011).

Hypothesis 3: Mindfulness was expected to correlate negatively with anxiety (Walsh, Balint, Sj, Fredericksen, & Madsen, 2009; Lepera, 2011; Mamić, 2016; Bajaj, Robins, & Pande, 2016).

Hypothesis 4: Mindfulness was expected to correlate negatively with depression (Deng, Li, & Tang, 2012; Lepera, 2011; Mamić, 2016; Bajaj, Robins, & Pande, 2016; Hayes, 2008).

Hypothesis 5: Mindfulness was expected to correlate negatively with hostility (Brown & Ryan, 2003; Heppner & Kernis, 2008; Borders, Earleywine, & Jajodia, 2010; Yusainy & Lawrence, 2014).

Research question 1: Individuals with high levels of mindfulness were expected to score higher on scales measuring self-esteem and sense of coherence and lower on scales measuring anxiety, depression and hostility compared to individuals with low levels of mindfulness.

2. Method

2.1 Sample

A questionnaire was completed by 405 respondents, 353 females and 52 males, living in Serbia. The age range was between 18 and 45 years. The mean age was 21.8 years ($SD = 3.8$) for females and 21.8 ($SD = 4.4$) for males; the age difference is not significant.

2.2 The Instrument

The questionnaire included scales for measuring mindful attention awareness (Brown, & Ryan, 2003), self-esteem (Rosenberg, 1965), depression, anxiety, and hostility (Derogatis, 1975) and sense of coherence (Antonovsky, 1993). The response alternatives on five-point scales, were as follows: mindful attention awareness (0 = almost never, 4 = very often), self-esteem (0 = strongly disagree, 4 = strongly agree), and depression, anxiety and hostility (0 = not at all, 4 = very much). Response alternatives for sense of coherence were on a seven-point scale (1= never, 7= always). For single items and Cronbach's alphas of the scales see Tables 1–4.

Table 1

Single Items and Cronbach's Alphas of the Scale Measuring Mindful Attention Awareness (N = 405)

<i>Mindful Attention Awareness (15 items, $\alpha = .80$)</i>
1. It happens that I experience an emotion but I am not aware of it until later. *
2. I break or spill things because of carelessness, not paying attention, or thinking of something else. *
3. I find it difficult to stay focused on what's happening in the present. *
4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way. *
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention. *
6. I forget a person's name almost as soon as I've been told it for the first time. *
7. It seems I am doing things automatically without much awareness of what I'm doing. *
8. I rush through activities without being really attentive to them. *
9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there. *
10. I am preoccupied with the future. *

-
11. I find myself listening to someone with one ear, doing something else at the same time.*
 12. I drive places on autopilot and then wonder why I went there. *
 13. I find myself preoccupied with the past. *
 14. I find myself doing things without paying attention. *
 15. I eat snacks without being aware that I am eating. *
-

* = reversed item

Table 2

Single Items and Cronbach's Alpha of the Scale Measuring Self-Esteem (N = 405)

Self-Esteem (10 items, $\alpha = .92$)

1. I feel that I am a person of worth, at least on an equal plane with others.
 2. I feel that I have a number of good qualities.
 3. All in all, I am inclined to feel that I am a failure. *
 4. I am able to do things as well as most other people.
 5. I feel I do not have much to be proud of. *
 6. I take a positive attitude toward myself.
 7. On the whole, I am satisfied with myself.
 8. I wish I could have more respect for myself. *
 9. I certainly feel useless at times. *
 10. At times I think I am no good at all. *
-

* = reversed item

Table 3

Single Items and Cronbach's Alphas of the Scales Measuring Depression, Anxiety, and Hostility (N = 405)

Depression (6 items, $\alpha = .83$)

1. Feeling hopeless about the future
 2. Feelings of worthlessness
 3. Feeling lonely
 4. Feeling blue
 5. Having no interest in things
 6. Having thoughts of ending your life
-

Anxiety (6 items, $\alpha = .89$)

1. Nervousness or shakiness inside
 2. Being suddenly scared for no reason
-

3. Feeling fearful
4. Feeling tense or keyed up
5. Spells of terror or panic
6. Feeling so restless you couldn't sit still

Hostility (5 items, $\alpha = .83$)

1. Feeling easily annoyed or irritated
2. Temper outbursts that you could not control
3. Having urges to beat, injure or harm someone
4. Having urges to break or smash things
5. Getting into frequent arguments

Table 4

*Single Items and Cronbach's Alpha of the Scale Measuring Sense of Coherence**(N = 405)*

Sense of Coherence (13 items, $\alpha = .79$)

1. Do you have the feeling that you do not really care about what goes on around you? *
2. Has it happened in the past that you were surprised by the behaviour of people whom you thought you knew well? *
3. Has it happened that people whom you counted on disappointed you? *
4. Until now your life has had very clear goals and purpose.
5. Do you have the feeling that you are being treated unfairly?
6. Do you have the feeling that you are in an unfamiliar situation and don't know what to do?
7. Doing the things you do every day is a source of pain and boredom. *
8. Do you have very mixed up feelings and ideas?
9. Does it happen that you have feelings inside you would rather not feel?
10. Many people - even those with a strong character - sometimes feel like sad sacks (losers) in certain situations. How often have you felt this way in the past?
11. When something happened, have you generally found that you saw things in the right proportion?
12. How often do you have the feeling that there is little meaning in the things you do in your daily life?
13. How often do you have feelings that you are not sure you can keep under control?

* = reversed item

2.3 Procedure

An electronic questionnaire was constructed with Google Drive.

A link to the questionnaire was published electronically, shared on social media and

distributed to students at various higher education institutions in Serbia through professors and teaching assistants at those institutions.

More specifically, students on all four years of psychology studies at University of Belgrade were given the link to the questionnaire, as well as psychology students from University of Niš and University of Novi Sad. Other contacted institutions were: Singidunum University, Faculty of Security Studies, Faculty of Economics, Faculty of Mathematics and Faculty of Organizational Sciences, all located in Belgrade, as well as psychology students' association in Novi Sad, pedagogy students' association in Belgrade and Faculty of Economics in Novi Sad. Students did not receive course points for their participation in this study.

On social media, the link was shared in a group of researchers and students with various backgrounds as well as on several individual profiles, through snowball sampling.

The link was active between 27.11.2018 and 22.01.2018.

2.4 Ethical Considerations

The study adheres to the principles concerning human research ethics of the Declaration of Helsinki (World Medical Association, 2013), as well as guidelines for the responsible conduct of research of The Finnish Advisory Board on Research Integrity (2012).

3. Results

3.1 Correlations between the Scales in the Study

All scales in the study correlated significantly with each other on a $p < .001$ -level (Table 5). Mindful attention awareness correlated significantly positively with self-esteem and sense of coherence, and negatively with depression, anxiety, and hostility.

Table 5
Correlations between the Scales in the Study (N = 405)

	1.	2.	3.	4.	5.
1. Mindful Attention Awareness					
2. Self-Esteem	.39 ***				
3. Depression	-.46 ***	-.67 ***			
4. Anxiety	-.41 ***	-.46 ***	.66 ***		
5. Hostility	-.40 ***	-.30 ***	.45 ***	.49 ***	
6. Sense of Coherence	.51 ***	.63 ***	-.66 ***	-.55 ***	-.44 ***

*** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$; † $p \leq .10$

3.2 Sex and Age Differences

Males were found to report significantly higher levels of mindfulness compared to females [$t_{(403)} = -2.99, p = .003$]. Women were found to report significantly higher levels of depression [$t_{(403)} = 3.03, p = .003$] and anxiety [$t_{(403)} = 3.82, p < .001$] compared to males. Age did not correlate significantly with any of the scales.

3.3 Psychological Concomitants of Mindfulness

The scale for mindfulness was transformed into z-scores, after which two groups were computed, one with mindfulness values above zero (high mindfulness), and one with mindfulness values equal to zero or below (low mindfulness).

A multivariate analysis of variance (MANOVA) was conducted with sex and mindfulness group (high vs. low) as independent variables and the five scales as dependent variables. The multivariate test was significant (Table 6, Figs. 1–5).

The univariate tests showed that females scored significantly higher on anxiety compared to males, no sex differences were found for self-esteem, depression, hostility or sense of

coherence. Respondents in the high mindfulness group scored significantly higher on self-esteem and sense of coherence, and significantly lower on depression, anxiety and hostility than those in the low mindfulness group. No interaction was found between sex and level of mindfulness.

Table 6
Results of a Multivariate Analysis of Variance (MANOVA) with Sex and Mindfulness Group (High vs. Low) as Independent Variables and Four Scales as Dependent Variables (N = 405)

	<i>F</i>	<i>df</i>	<i>p</i> ≤	η_p^2
Effect of Sex				
Multivariate analysis	3.23	5, 397	.007	.039
Univariate analyses				
Self-Esteem	0.40	1, 401	<i>ns</i>	.001
Depression	3.30	“	<i>ns</i>	.008
Anxiety	8.43	“	.004	.021
Hostility	0.96	“	<i>ns</i>	.002
Sense of Coherence	0.03	“	<i>ns</i>	.001
Effect of Mindfulness Group				
Multivariate analysis	12.37	5, 397	.001	.135
Univariate analyses				
Self-Esteem	37.61	1, 401	.001	.086
Depression	43.12	“	.001	.097
Anxiety	24.46	“	.001	.057
Hostility	25.35	“	.001	.059
Sense of Coherence	40.32	“	.001	.091
Interaction				
Multivariate analysis	0.82	5, 397	<i>ns</i>	.010

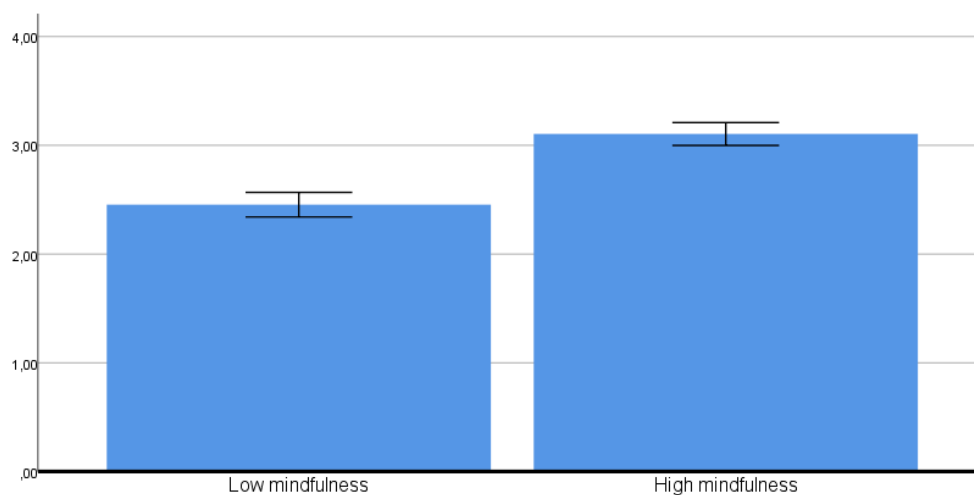


Figure 1. Mean values for self-esteem for respondents in the high vs. low mindfulness groups ($N = 405$).

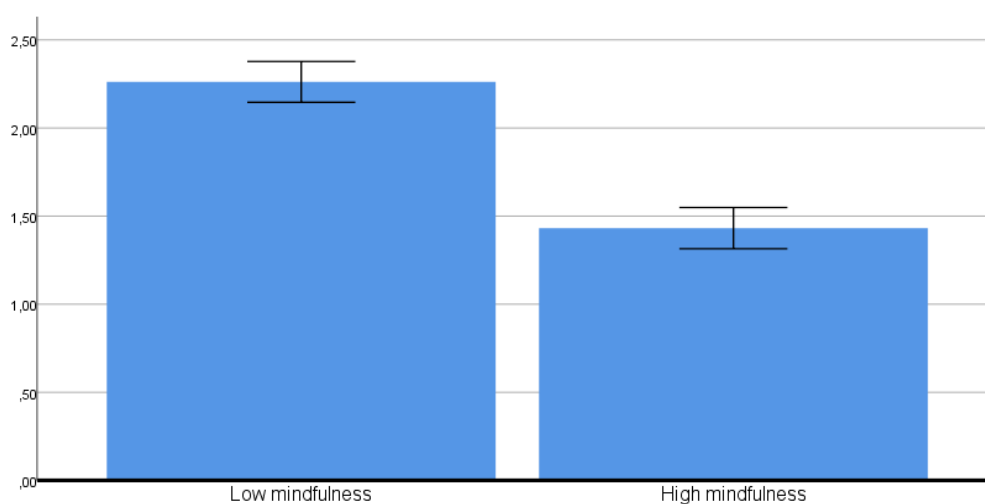


Figure 2. Mean values for depression for respondents in the high vs. low mindfulness groups ($N = 405$).

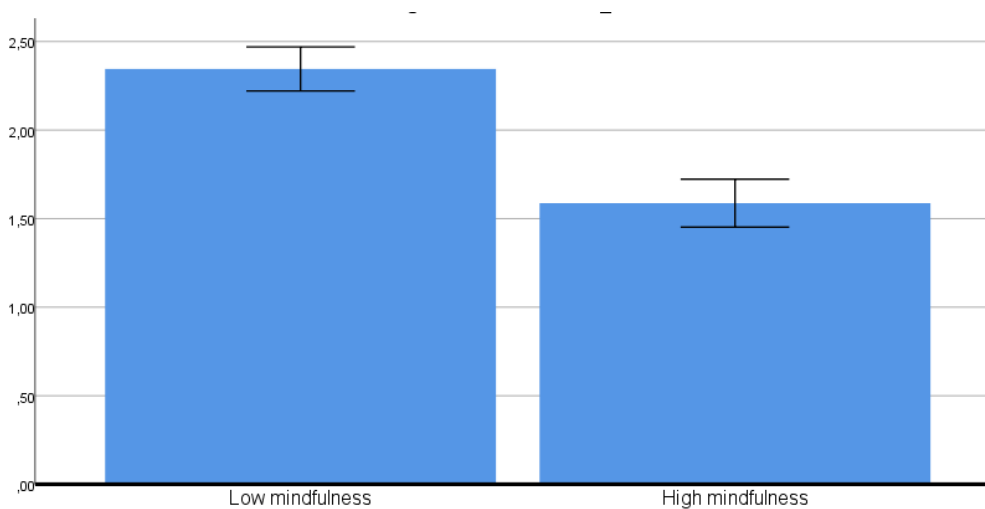


Figure 3. Mean values for anxiety for respondents in the high vs. low mindfulness groups ($N = 405$).

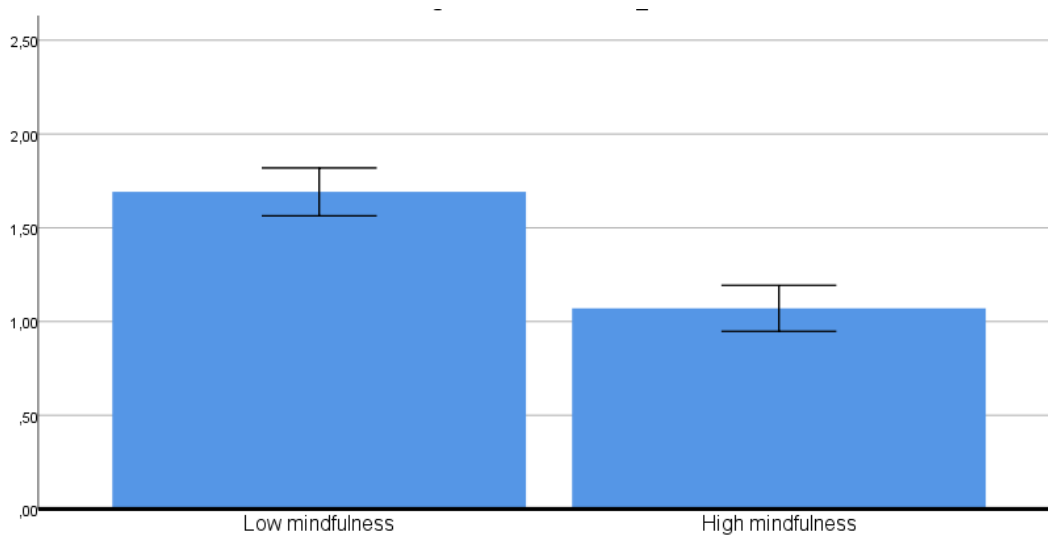


Figure 4. Mean values for hostility for respondents in the high vs. low mindfulness groups ($N = 405$).

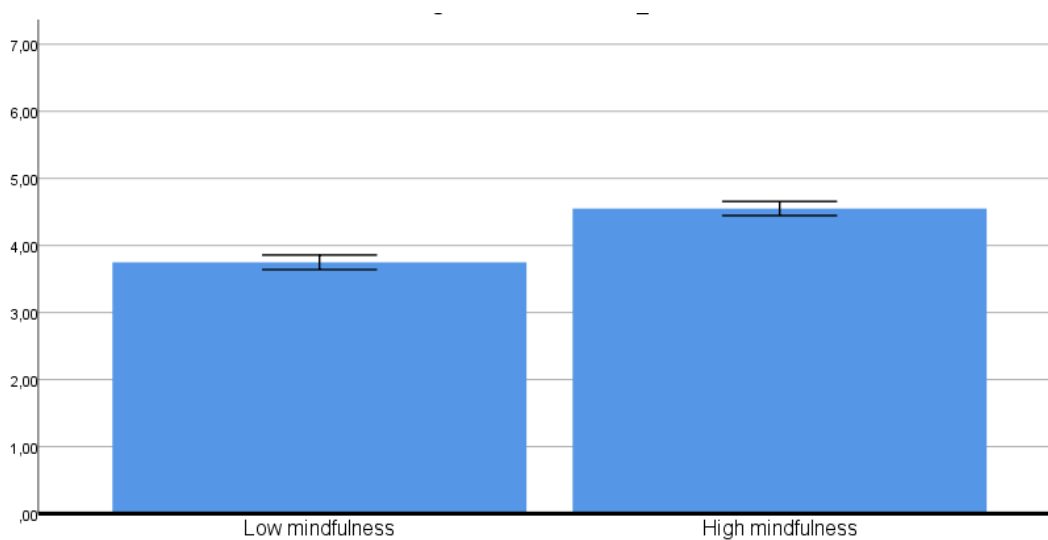


Figure 5. Mean values for sense of coherence for respondents in the high vs. low mindfulness groups ($N = 405$).

3.4 Single Items of the Scale Measuring Low Mindfulness

The mean values of the single items measuring low mindfulness are presented in Fig. 6.



Figure 6. Mean values of single items measuring low mindfulness ($N = 405$).

4. Discussion

4.1 Summary of the Results

Results of previous studies regarding age and sex differences in mindfulness have been inconclusive and few studies have dealt specifically with age and sex differences in mindfulness as the primary focus. Based on the literature, some studies suggest age and sex differences while others do not. In studies where a difference was found, older people seem to be more mindful than younger, and sex differences have been found regarding some facets of mindfulness.

In the present study, no age differences were found for any of the scales. This might be because the differences could not be registered since different age groups were unevenly represented in the study. Therefore, no general conclusions can be drawn regarding age.

Males scored significantly higher on mindfulness than females. The instrument used in this study measures mindfulness as a single construct and therefore no distinct mindfulness facets were measured. Consequently, sex differences on separate mindfulness facets could not be further explored.

Additionally, females scored significantly higher on depression and anxiety than males, and no sex differences were found for self-esteem, sense of coherence or hostility.

The study included measurements of mindful attention awareness, self-esteem, sense of coherence and depression, anxiety, and hostility. The scientific literature is mostly consistent in finding that mindfulness is positively associated with self-esteem, and sense of coherence, and negatively associated with depression, anxiety and hostility. A few studies have found no conclusive evidence for associations between mindfulness and the mentioned constructs (Majumdar, Grossman, Dietz-Waschkowski, Kersig, & Walach, 2002; Evans, et al., 2008; Toneatto & Nguyen, 2007; Strauss, Cavanagh, Oliver, & Pettman, 2014; Bamber & Schneider, 2016). In some studies, the evidence pointed to the opposite effect, raising safety issues in application and research of mindfulness (Lustyk, Chawla, Nolan, & Marlatt, 2009).

In the present study, all scales correlated significantly with each other. Mindful attention awareness correlated positively with self-esteem and sense of coherence and negatively with depression, anxiety, and hostility. Respondents with a higher level of mindfulness than the average scored significantly higher on self-esteem and sense of coherence, and significantly lower on depression, anxiety, and hostility than those with a low level of mindfulness.

These results suggest that all five hypotheses and one research question of this study were corroborated.

4.2 Limitations of the Study

In the present study, mindfulness was registered with no mindfulness-based interventions or training involved. The instrument measured dispositional mindfulness. One limitation of the study is the self-report measures, raising questions about different respondents' understanding of the statements, and possible lack of objectivity.

The sample in this study was a convenience sample and not representative and therefore conclusions should be drawn and generalised with caution. Additionally, this was a correlational study and no conclusions about causality can be drawn.

The study was conducted on a non-clinical largely student sample. To better understand connections between mindful awareness, anxiety, depression, hostility, sense of coherence and self-esteem, a clinical population could be used.

The strengths of this study include sample size and reliabilities of the scales used. The results contribute to the body of research in the field and provide further evidence of connections between mindfulness, self-esteem, sense of coherence, anxiety, depression and hostility. The study also expands the cultural relevance of the field by exploring the associations in a Serbian sample.

4.3 Implications of the Study and Suggestions for Future Research

Although the present study was correlational and there are restrictions when drawing conclusions about causality, the results provide further evidence for the positive associations between mindfulness and self-esteem and sense of coherence and negative associations between mindfulness and depression, anxiety and hostility. Future explorations could incorporate research designs that allow for causality conclusions to be made, and investigate if mindfulness interventions and treatment can increase mindfulness and indirectly affect other psychological characteristics.

This kind of evidence would be a crucial incentive to include mindfulness in various contexts in order to secure improvement in mental health and more general psychological wellbeing.

Future research could focus on further exploring mindfulness not only in Serbia, but also in other cultural and social contexts. In this way, an understanding could be reached about the effects of mindfulness in these contexts. Based on the acquired understanding, it could be ensured that potential benefits of mindfulness are not reserved only for the socially or economically privileged, or that cultural differences are overlooked in application.

Furthermore, conflicts present an integral part of everyday life. When they occur, they can be stressful and emotionally charged. In high intensity situations, there is a tendency to enter fight/flight/freeze states that block out the prefrontal cortex activity. Rational thinking is blocked and automatic learned responses are activated. Conflicts can be considered as a valuable opportunity to apply and experience the effects of mindfulness practice and improve conflict experience, management and outcomes. The area of mindfulness in conflict requires further research and empirical evidence.

The literature on conflict points out the importance of knowing oneself and acknowledging the influence of personality and other psychological characteristics on conflict perception, as well as on the probability of engaging in conflict resolution and the choice of strategies used in conflict management and negotiation. These psychological mechanisms include evaluations of one's own worth and competence reflected in self-esteem, and perceptions of manageability and meaningfulness of the conflict reflected in sense of coherence. Rumination is closely associated with depression, anxiety and hostility. The content of a person's thoughts varies, but the thoughts are nonetheless pervasive, repetitive and intrusive. Becoming absorbed in the web of cognitions is the opposite of bringing attention and awareness to the present moment. Depressive, anxious, and hostile rumination could influence a person's perception of conflict and his or her willingness to engage in its resolution by instead cultivating pessimism, fearfulness or anger, and wish for revenge. Further research could explore these processes in more detail including both way effects, i.e. how self-esteem impacts conflict behaviour and how conflict behaviour influences self-esteem.

When investigating the interplay of these constructs in conflict, personal relationships provide a useful context for exploration where findings have immediate practical importance for everyday life regardless of whether interpersonal relationships are with family, friends, romantic partners or colleagues in a working environment. Relationships can be seen as a context for practice, skill acquisition, and personal growth, enabling the development of intimacy and healthy boundaries in interaction with other people.

Future research could also focus on the family and its significance and potential to develop mindfulness and other psychological tools in children and young adults as a form of preventive measures for future violent and aggressive responses in conflict situations that can have broader societal impacts as well. Exploration of physiological correlates of mindfulness and conflict processes in relationships with other people could also shed more light on the mechanisms of the effect and possible dynamics. Understanding underlying mechanism could prove to be

useful knowledge for application in practical everyday situations. It would also help in better understanding long-term health consequences of adaptive and maladaptive conflict management strategies, providing motivation for skill acquisition and development. Future research prospects are bountiful. These are some of the possible areas where the role of mindfulness and its psychological concomitants could be explored and applied.

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Appendix A: The questionnaire in English

Questionnaire

I am a student in the Master's programme in Peace, Mediation and Conflict Research at the department of psychology at Åbo Akademi in Finland. This questionnaire is part of my master thesis work. Filling this form takes around 5 minutes. Your anonymity is secured and data will only be used for research purposes.

Gender

Female

Male

Age (numbers only)

Day-to-Day Experiences

Below is a collection of statements about your everyday experience. Using 0-4 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

0 - almost never

1 - seldom

2 - sometimes

3 - often

4 - very often

	0 - almost never	1 - seldom	2 - sometimes	3 - often	4 - very often
1. It happens that I experience an emotion but I am not aware of it until later.					
2. I break or spill things because of carelessness, not paying attention, or thinking of something else.					
3. I find it difficult to stay focused on what is happening in the present.					
4. I tend to walk quickly to get where I am going without paying attention to what I experience along the way.					
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.					
6. I forget a person's name almost as soon as I have been told it for the first time.					
7. It seems I am doing things automatically without much awareness of what I am doing.					
8. I rush through activities without being really attentive to them.					
9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.					
10. I am preoccupied with the future.					
11. I find myself listening to someone with one ear, doing something else at the same time.					
12. I drive places on autopilot and then wonder why I went there.					
13. I find myself preoccupied with the past.					
14. I find myself doing things without paying attention.					
15. I eat snacks without being aware that I am eating.					

How much have the following distressed or bothered you?

	0 – not at all	1	2	3	4 – very much
1. Feeling hopeless about the future					
2. Feelings of worthlessness					
3. Feeling lonely					
4. Feeling blue					
5. Having no interest in things					
6. Having thoughts of ending your life					

How much have the following distressed or bothered you?

	0 – not at all	1	2	3	4 – very much
1. Nervousness or shakiness inside					
2. Being suddenly scared for no reason					
3. Feeling fearful					
4. Feeling tense or keyed up					
5. Spells of terror or panic					
6. Feeling so restless you could not sit still					

How much have the following distressed or bothered you?

	0 – not at all	1	2	3	4 – very much
1. Feeling easily annoyed or irritated					
2. Temper outbursts that you could not control					
3. Having urges to beat, injure or harm someone					
4. Having urges to break or smash things					
5. Getting into frequent arguments					

Indicate how much you agree with the following statements.

0 - strongly disagree

1 - disagree

2 - neutral

3 - agree

4 - strongly agree

	0 - strongly disagree	1 - disagree	2 - neutral	3 - agree	4 - strongly agree
1. I feel that I am a person of worth, at least on an equal plane with others.					
2. I feel that I have a number of good qualities.					
3. All in all, I am inclined to feel that I am a failure.					
4. I am able to do things as well as most other people.					
5. I feel I do not have much to be proud of.					

6. I take a positive attitude toward myself.					
7. On the whole, I am satisfied with myself.					
8. I wish I could have more respect for myself.					
9. I certainly feel useless at times.					
10. At times I think I am no good at all.					

Here is a series of questions relating to various aspects of our lives. Each question has seven possible answers. Please mark the number, which expresses your answer, with number 1 to 7 being the extreme answers. If the words under 1 are right for you, mark 1; if the words under 7 are right for you, mark 7. If you feel differently, mark the number which best expresses your feeling.

1. Do you have the feeling that you don't really care about what goes on around you?

very seldom or never	1	2	3	4	5	6	7	very often
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2. Has it happened in the past that you were surprised by the behaviour of people whom you thought you knew well?

never happened	1	2	3	4	5	6	7	always happened
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3. Has it happened that people whom you counted on disappointed you?

never happened	1	2	3	4	5	6	7	always happened
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4. Until now your life has had:

no clear goals or purpose at all	1	2	3	4	5	6	7	very clear goals and purpose
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5. Do you have the feeling that you're being treated unfairly?

very often	1	2	3	4	5	6	7	very seldom or never
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6. Do you have the feeling that you are in an unfamiliar situation and don't know what to do?

very often	1	2	3	4	5	6	7	very seldom or never
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7. Doing the things you do every day is:

a source of deep pleasure and satisfaction	1	2	3	4	5	6	7	a source of pain and boredom
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8. Do you have very mixed up feelings and ideas?

very often	1	2	3	4	5	6	7	very seldom or never
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9. Does it happen that you have feelings inside you would rather not feel?

very often	1	2	3	4	5	6	7	very seldom or never
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10. Many people - even those with a strong character - sometimes feel like sad sacks (losers) in certain situations. How often have you felt this way in the past?

very often	1	2	3	4	5	6	7	very seldom or never
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11. When something happened, have you generally found that:

you overestimated or underestimated its importance	1	2	3	4	5	6	7	you saw things in the right proportion
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12. How often do you have the feeling that there's little meaning in the things you do in your daily life?

very often	1	2	3	4	5	6	7	very seldom or never
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13. How often do you have feelings that you're not sure you can keep under control?

very often	1	2	3	4	5	6	7	very seldom or never
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Your responses will be recorded when you press the blue button on the screen. Thank you for participating!

Appendix B: The questionnaire in Serbian

Upitnik

Ja sam studentkinja na master programu "Istraživanje mira, medijacije i konflikata" u okviru odeljenja za psihologiju na Åbo Akademi univerzitetu u Finskoj. Ovaj upitnik je deo rada na mojoj master tezi. Popunjavanje traje oko 5 minuta. Tvoja anonimnost je zagarantovana, a podaci će biti korišćeni isključivo u naučne svrhe.

Pol

- muški
- ženski

Starost (godine)

Svakodnevna iskustva

Sledi niz izjava o tvom svakodnevnom iskustvu. Koristeći skalu od 0 do 4, označi koliko često ili retko trenutno u svom iskustvu imaš ono što svaka pojedinačna izjava opisuje.

Trudi se da odgovaraš u skladu sa onim što zaista opisuje tvoje iskustvo, a ne prema tome kakvo misliš da bi tvoje iskustvo trebalo da bude. Odnosi se prema svakoj izjavi posebno, nezavisno od drugih izjava.

0 - skoro nikada

1 – retko

2 - ponekad da, ponekad ne

3 – često

4 - veoma često

	0 - skoro nikada	1 – retko	2 - ponekad da, ponekad	3 – često	4 - veoma često
1. Dešava se da doživim emociju, ali da postanem svestan/na da sam je doživeo/la tek kasnije.					
2. Dešava mi se da razbijem stvari ili prospem nešto zbog nemara, nedostatka pažnje ili razmišljanja o nečemu drugom.					
3. Teško mi je da se fokusiram na ono što se dešava u sadašnjem trenutku.					
4. Imam običaj da hodam brzo ka mestu na koje idem, bez obraćanja pažnje na ono što doživljam usput.					
5. Imam običaj da ne primećujem osećanja fizičke napetosti ili nelagodnosti sve dok mi oni zaista ne privuku pažnju.					
6. Zaboravim nečije ime skoro odmah nakon što mi je ime rečeno po prvi put.					
7. Čini mi se da radim stvari automatski, bez mnogo svesnosti o onome što radim.					
8. Žurim kroz aktivnosti bez obraćanja posebne pažnje na njih.					
9. Postanem toliko fokusiran/na na cilj koji želim da ostvarim, da izgubim kontakt sa onim što trenutno radim da bih dostigao/la taj cilj.					
10. Preokupiran/na sam budućnošću.					
11. Uхватim sebe da slušam nekoga jednim uvetom, istovremeno radeći nešto drugo.					
12. Rutinski se odvezem do nekog mesta i onda se ne sećam kako sam stigao/la tamo.					

13. Primećujem da sam preokupiran/na prošlošću.					
14. Uхватim sebe kako radim stvari bez obraćanja pažnje na njih.					
15. Jedem grickalice a da nisam svestan/na da ih jedem.					

U kojoj meri te je uznemiravalo ili ti smetalo sledeće:

	0 – uopšte ne	1	2	3	4 – veoma
1. osećanje beznadežnosti povodom budućnosti?					
2. osećanje da ne vrediš?					
3. osećanje usamljenosti?					
4. osećanje snuždenosti?					
5. opšta nezainteresovanost?					
6. prisustvo suicidalnih misli?					

U kojoj meri te je uznemiravalo ili ti smetalo sledeće:

	0 – uopšte ne	1	2	3	4 – veoma
1. osećanje nervoze ili uznemirenosti?					
2. iznenadan strah bez razloga?					
3. osećanje strepnje?					
4. osećanje napetosti i zabrinutosti?					
5. napadi užasa i panike?					
6. osećanje tolike uznemirenosti da ne možeš da sediš mirno?					

U kojoj meri te je uznemiravalo ili ti smetalo sledeće:

	0 – uopšte ne	1	2	3	4 – veoma
1. osećanje olake iznerviranosti i iziritiranosti?					
2. temperamentni izlivi izvan tvoje kontrole?					
3. javljanje nagona da prebiješ, povrediš ili naudiš nekome?					
4. javljanje nagona da razbiješ ili slomiš stvari?					
5. često upadanje u svađe?					

Označi u kojoj meri se slažeš ili ne slažeš sa sledećim izjavama.

0 - uopšte se ne slažem

1 - ne slažem se

2 - podjednako se ne slažem i slažem

3 - slažem se

4 - u potpunosti se slažem

	0 - uopšte se ne slažem	1 - ne slažem se	2 - podjednako se ne slažem i slažem	3 - slažem se	4 - u potpunosti se slažem
1. Osećam da vredim kao osoba, barem podjednako koliko i drugi ljudi.					
2. Osećam da imam nekoliko dobrih kvaliteta.					

3. Sve u svemu, sklon/na sam da se osećam kao gubitnik/ca.					
4. Sposoban/na sam da radim stvari podjednako dobro kao i većina drugih ljudi.					
5. Osećam da nemam puno toga čime mogu da se ponosim.					
6. Zauzimam pozitivan stav prema sebi.					
7. Sve u svemu, zadovoljan/na sam sobom.					
8. Voleo/la bih da mogu da imam više poštovanja prema sebi.					
9. Ja se svakako osećam beskorisno ponekada.					
10. Ponekad mislim da uopšte ne vredim ni malo.					

Sledi niz pitanja koja se odnose na različite aspekte našeg života. Svako pitanje ima sedam mogućih odgovora. Označi broj koji odražava tvoj odgovor na najbolji način, pri čemu su brojevi 1 i 7 suprotnosti na skali. Ako misliš da se reči označene brojem 1 odnose na tebe, označi 1. Ako misliš da se reči označene brojem 7 odnose na tebe, označi 7. Ako se ne slažeš ni sa jednom ni sa drugom opcijom, označi broj koji u najboljoj meri predstavlja ono što osećaš, između ova dva krajnja odgovora.

1. Da li imaš osećaj da te zapravo ne zanima ono što se događa oko tebe?

vrlo retko ili nikada	1	2	3	4	5	6	7	veoma često
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2. Da li ti se u prošlosti desilo da si bio/la iznenađen/na ponašanjem ljudi koje si mislio/la da poznaješ dobro?

nikada se nije desilo	1	2	3	4	5	6	7	stalno se dešavalo
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3. Da li ti se desilo da su te ljudi na koje si računao/la razočarali?

nikada se nije desilo	1	2	3	4	5	6	7	stalno se dešava
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4. Do sada, tvoj život je imao:

nijedan jasan cilj ili svrhu	1	2	3	4	5	6	7	veoma jasne ciljeve i svrhu
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5. Da li imaš osećaj da si tretiran/na nepravedno?

veoma često	1	2	3	4	5	6	7	veoma retko ili nikada
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6. Da li imaš osećaj da si u nepoznatoj situaciji u kojoj ne znaš šta da radiš?

veoma često	1	2	3	4	5	6	7	veoma retko ili nikada
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7. Obavljanje svakodnevnih aktivnosti za tebe je:

izvor dubokog uživanja i zadovoljstva	1	2	3	4	5	6	7	izvor bola i dosade
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8. Da li imaš veoma pomešana osećanja i ideje?

veoma često	1	2	3	4	5	6	7	veoma retko ili nikada
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9. Da li ti se dešava da imaš osećanja koja radije ne bi da osetiš?

veoma često	1	2	3	4	5	6	7	veoma retko ili nikada
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10. Mnogi ljudi - čak i oni sa jakim karakterom - ponekad se osećaju kao gubitnici u određenim situacijama. Koliko često si se ti osećao/la ovako u prošlosti?

veoma često	1	2	3	4	5	6	7	veoma retko ili nikada
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11. Kada se nešto desi, primetio/la si da ti generalno:

preceniš ili potceniš važnost događaja	1	2	3	4	5	6	7	sagledaš događaj u njegovoj pravoj meri
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12. Koliko često imaš osećaj da aktivnosti koje obavljaš u svakodnevnom životu imaju malo smisla?

veoma često	1	2	3	4	5	6	7	veoma retko ili nikada
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13. Koliko često imaš osećanja za koja nisi siguran/na da ih možeš držati pod kontrolom?

veoma često	1	2	3	4	5	6	7	veoma retko ili nikada
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Pritisni plavo dugme na ekranu da bi odgovori bili zabeleženi. Hvala na učešću!