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Mindfulness Intervention for Child Abuse Survivors: A 2.5-Year Follow-Up

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Objective: The present study reports on the long-term effects of a mindfulness-based stress reduction (MBSR) program for adult survivors of childhood sexual abuse. **Method:** Of the study participants, 73% returned to the clinic for a single-session follow-up assessment of depression, post-traumatic stress disorder (PTSD), anxiety, and mindfulness at 2.5 years. **Results:** Repeated measures mixed regression analyses revealed significant long-term improvements in depression, PTSD, anxiety symptoms, and mindfulness scores. The magnitude of intervention effects at 128 weeks ranged from $d = .5$ to $d = 1.1$. **Conclusion:** MBSR may be an effective long-term treatment for adults who have experienced childhood sexual abuse. Further investigation of MBSR with this population is warranted given the durability of treatment effects described here. © 2014 Wiley Periodicals, Inc. *J. Clin. Psychol.* 00:1–9, 2014.

Keywords: mindfulness intervention; meditation; child abuse; sexual abuse; posttraumatic stress disorder; long-term follow-up

Childhood sexual abuse (CSA) has been defined as a sexual act between an adult and a child in which the child is utilized for the sexual satisfaction of the perpetrator (Briere, 1992). Rates of CSA among women vary widely by study, from 9% to 33%, while the rate for men has been reported at 14% (Briere & Elliott 2003; Finkelhor & Dzuiba-Leatherman, 1994). As alarming as such figures are, CSA is likely still underreported due to the stigma associated with sexual abuse and fears that disclosure could invoke further abuse from the perpetrator or other negative consequences.

While the precise prevalence of CSA is unclear, the host of long-term behavioral, psychological, and social difficulties that afflict CSA victims have been well articulated. Briere and Jordan (2009) report that CSA survivors show increased rates of posttraumatic stress, cognitive disturbance and distortion, mood and anxiety disorders, somatic complaints, identity disorders, emotion regulation disturbances, and interpersonal difficulties. Victims of childhood sexual

This project, in its entirety, was conducted through the Center for Integrative Medicine at the University of Maryland Baltimore.

Dr. Elizabeth “Lisa” Kimbrough lost her battle with brain cancer in early 2011. Both the original MICAS project and this follow-up study were the fruits of her passionate commitment to grounding integrative medicine in clinical research. This manuscript is published posthumously in her honor.

We thank Laura Benzel for her assistance in coordinating this research and Mary Bahr-Robertson for her support with the IRB submission process. We are most grateful for the commitment and generosity of The Mental Insight Foundation, which provided the funding for both the initial MICAS project, and this follow-up study. Finally, we express our sincere gratitude to our participants, without whom none of this is possible.

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abuse are also known to have significantly increased risk of suicidality (Dube et al., 2001) and high rates of revictimization (Messman-Moore & Long, 2003; Widom, Czaja, & Dutton, 2008). Furthermore, rather than presenting as a uniform syndrome, these complaints are often interwoven in a manner that renders the conceptualization and development of effective treatments challenging.

Though the presenting symptoms of CSA are not uniformly captured by a diagnosis of posttraumatic stress disorder (PTSD), most available treatments for CSA are theoretically linked to PTSD. In one study, 49% of sexually abused children evidenced no PTSD symptoms (Lev-Wiesel, 2008). Nonetheless, most extant treatments for CSA survivors are variations on cognitive-behavioral therapies (CBTs) such as prolonged exposure and cognitive processing therapy (CPT; Resick & Schnicke, 1992; Foa, Keane, & Friedman, 2000), which have strong empirical support. In response to this discrepancy, some scholars have chosen to revise and tailor existing PTSD treatments to meet the specific needs of survivors of CSA, e.g., Chard's (2005) cognitive processing therapy for sexual abuse survivors.

Alternatively, others have sought to develop or test distinct treatments that might be particularly effective in addressing the range of symptoms experienced by victims of CSA. For example, Lorenz, Pulverman, and Meston (2013) have shown that patient-directed expressive writing about one's trauma can significantly and suddenly reduce symptoms of depression. Another approach has been to utilize so called "third wave" treatments, those that integrate mindfulness training with traditional CBT and behavioral principles, and have been shown to be efficacious in treating a broad range of clinical problems including mood and anxiety disorders, substance abuse disorders, and personality difficulties (Baer, 2003). These therapies include acceptance and commitment therapy (ACT; Hayes, Luoma, Bond, Masuda, & Lillis, 2006) and dialectical behavior therapy (DBT; Linehan, 2000), among others.

One hypothetical advantage of incorporating mindfulness into treatment for CSA survivors is the likelihood that mindfulness may improve not only the presenting symptoms of a given disorder but also psychosocial functioning more broadly. Recent research has shown that mindfulness-based treatments can increase positive affect while improving mental and physical health, quality of life, and even the quality of one's sleep (Gayner et al., 2012; Kearney, McDermott, Malte, Martinez, & Simpson, 2012). While the study of the mechanisms of mindfulness that account for these changes is still in its infancy, there are several proposed means by which improved mindfulness skills may enhance psychological well-being. Deyo, Wilson, Ong, and Koopman (2009) have written that mindfulness practice is associated with decreases in ruminative thinking. They speculate that "mindfulness training aims to teach people to decenter from their thoughts and emotions . . . to see their thoughts and feelings come and go without attaching important truth or meaning to them." This concept of decentered thinking aligns with Malinowski's (2013) Liverpool model of mindfulness that posits that mindfulness practice enhances emotional and cognitive flexibility by enhancing an individual's nonjudgmental awareness of their experience.

Kimbrough, Magyari, Langenberg, Chesney, and Berman (2010) conducted the first study to specifically employ mindfulness in the treatment of CSA and was designed to assess the effectiveness of mindfulness-based stress reduction (MBSR; Kabat-Zinn, 2005) for a group of adult survivors of CSA. The project Mindfulness Intervention for Child Abuse Survivors (MICAS) was conducted between May 2007 and August 2008, with three successive cohorts of individuals participating in an 8-week MBSR course. Cohorts completed identical MBSR interventions comprising weekly 2.5–3-hour classes that involved sitting meditation, gentle yoga, stretching, and *body scanning*, a technique in which one progressively moves attention through the body to identify points of sensation. Additionally, participants attended a single 5-hour silent retreat and were asked to practice meditation at home for 20–30 minutes per day, 6 days per week.

The findings from the MICAS Study were quite promising, with participants reporting significant decreases on all indicators of distress as well as substantial subjective emotional improvement. Mean levels of depression, PTSD symptoms, and anxiety were all observed to be significantly lower at treatment's end (8 weeks), with significant effects maintained through follow-up (24 weeks). Simultaneously, mindfulness scores were significantly increased by

treatment's end, with this effect also maintained at 24 weeks (for complete results, see Kimbrough et al., 2010).

While a growing body of literature has reported on the sustained long-term benefits of mindfulness interventions, specifically MBSR, for varied conditions such as chronic pain (Kabat-Zinn, Lipworth, & Burney, 1985), anxiety and depression (Miller, Fletcher, & Kabat-Zinn, 1995), and fibromyalgia (Grossman, Tiefenthaler-Gilmer, Raysz, & Kesper 2007), there is no such evidence for the maintained benefits of MBSR within the CSA survivor population. Therefore, due to the encouraging initial results from MICAS, the authors endeavored to assess the sustained efficacy of MBSR by conducting a follow-up evaluation with MICAS participants. For the purposes of this study, we have defined "long-term" follow-up as 2.5 years because the results reported here were efforts beyond the scope of the original project and required acquisition of additional funding and institutional review board (IRB) approval.

Method

Participants

The present study (MICAS-II) invited the original MICAS participants to return for a single session follow-up assessment to contribute to a better understanding of the ongoing effects of MBSR among those recovering from CSA. Invitations were extended to participants who had attended at least four MBSR sessions, i.e., 50% of the initial intervention. This cutoff was chosen to ensure that participants had received an ample dose of the treatment, and because there is little research in the literature on the efficacy of MBSR in smaller doses. The 23 eligible participants (of 27 originally consented) were first contacted by telephone to inform them of the study and review the purpose and procedures of the follow-up. For those who could not be reached by phone, staff sent identical information via e-mail and subsequently by a formal IRB-approved letter.

Interested participants next completed telephone prescreening and scheduled their appointment with study staff, with the option to participate either in person or from a distance, via mailed assessments and phone interviews. Of 23 potential MICAS-II participants, two lacked updated contact information and two others, who consented to participate from a distance, failed to return their questionnaires. Therefore, the follow-up sample represents 19 of 23 potential responders. Detailed demographic information for the study sample and information on recruitment, inclusion and exclusion criteria, etc., can be found in the original MICAS outcome study (Kimbrough et al., 2010).

Procedure

The MICAS-II study comprised a single 3-hour research visit that was completed in person, or over the phone if necessary. Participants first spoke with the research coordinator, who completed the informed consent process, before completing a series of self-report questionnaires requiring approximately 1 hour to complete. Finally, each participant completed an interview, with their original MBSR teacher, designed to assess the participant's health and wellness and gain valuable feedback for improving the intervention for potential future interventions for this population.

Measures

Depression was assessed via the Beck Depression Inventory, 2nd Edition (BDI-II; Beck, Steer, Ball, & Ranieri, 1996), which comprises 21 Likert-type items that evaluate subjective affective, behavioral, biological, motivational, and cognitive elements of depressive symptomatology. PTSD symptom severity was assessed via the PTSD Checklist (PCL; Weathers, Litz, Huska, & Keane, 1993), which comprises 17 items that indicate the degree to which respondents are bothered by particular PTSD symptoms. Anxiety was measured using the Anxiety subscale of the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983). Trait mindfulness was

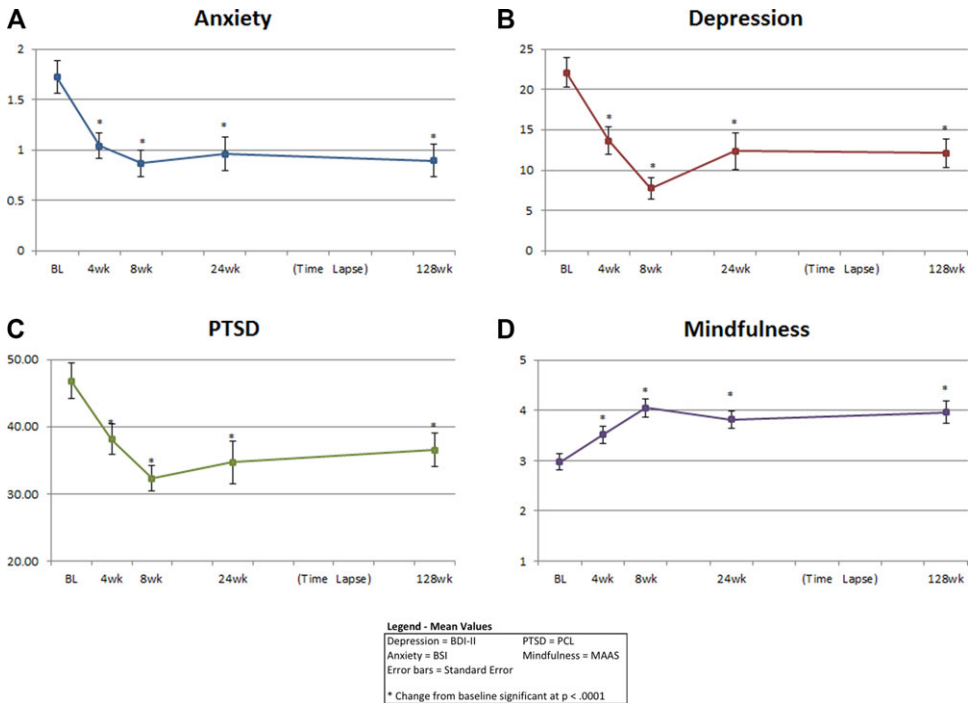


Figure 1. Primary outcomes.

measured via the Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003), which comprises 15 Likert-type items that assess one's tendency to stay aware of what is taking place in the present moment.

Data Analysis Procedures

As in the original MICAS study, mixed regression models were estimated to examine changes in depression, anxiety, and PTSD symptoms, as well as trait mindfulness. Mixed regression models have many advantages over traditional repeated measures techniques (such as repeated measures analysis of variance) including the absence of problematic assumptions such as sphericity (Blackwell, de Leon, & Miller, 2006).¹

Results

Study Outcomes

Mean depression, PTSD, anxiety symptoms, and mindfulness scores at baseline and weeks 4, 8, 24, and 128 are shown in Figure 1 below. Mean scores of PTSD symptom clusters B, C, and D are shown in Figure 2. Only the scores at 128 weeks correspond to the follow-up study reported here; data from weeks 4, 8, and 24 were gathered under the auspices of the original MICAS study.

¹While re-examining analyses conducted for the original MICAS study, it was noted that the original MAAS analysis had erroneously utilized a mean of the first 14 items of the MAAS with number 15 omitted. To meaningfully compare results, we decided to utilize an identical 14-item mean for the current study. A test of mean difference confirmed that there was no significant difference between the 14- and 15-item mean for the MICAS-II sample.

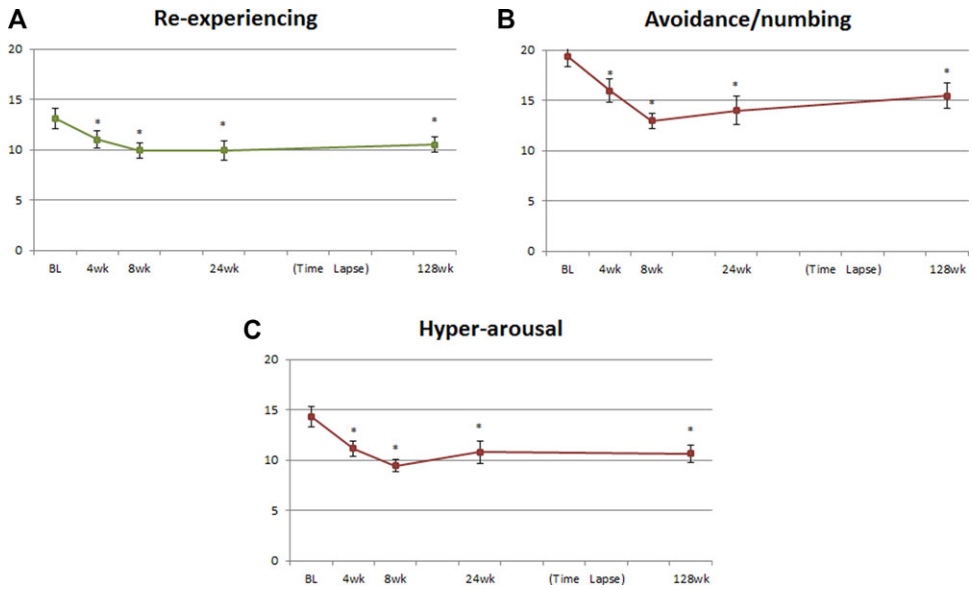


Figure 2. PTSD symptom clusters from PCL.

Depression

Building on the findings of the MICAS Study, significant improvements in depressive symptoms were sustained from the 24-week follow-up visit, remaining decreased at the 2.5-year follow-up. The mean levels of depressive symptoms were 22.1 (1.8) at baseline, 13.7 (1.7) at 4 weeks, 7.8 (1.3) at 8 weeks, 12.4 (2.2) at 24 weeks, and 12.1 (1.8) at 2.5 years. The effect size for depression was 1.1 at 128 weeks; depression model: $F(4, 83) = 27.1, p < .0001$.

Anxiety

Significant decreases in mean anxiety scores from baseline levels persisted at the 2.5-year visit, with a reduction of 7 percentile points from baseline scores remaining stable from the 24-week to 2.5-year visits. Mean levels of anxiety scores were 1.7 (1.2) at baseline and 0.9 (0.2) at 2.5 years. The effect size for anxiety was 0.9 at 2.5-years; anxiety model: $F(4, 83) = 13.0, p < .0001$.

Mindfulness

Average MAAS scores at 2.5-year follow-up remained significantly improved from baseline levels and comparable to levels found in nonpsychiatric community populations, 4.0 (0.2; Brown & Ryan, 2003; Carlson & Brown, 2005). The effect size for mindfulness was 1.1 at 128 weeks; mindfulness model: $F(4, 83) = 11.5, p < .0001$.

PTSD Symptoms

Mean PCL scores of 46.8 (2.7) at baseline decreased significantly after the intervention and increased slightly between 8-week and 24-week follow-up, but remained significantly decreased from baseline levels at the 2.5-year follow-up, 36.5 (2.4). The effect size for PTSD was 0.8 at 128 weeks; PTSD model: $F(4, 83) = 36.1, p < .0001$.

Meeting Criteria for PTSD

By 24 weeks after baseline, the number of participants meeting criteria for PTSD as assessed by the PCL had decreased from 15 to 9, $\chi^2(1, N = 27) = 2.70, p = 0.10$. Using a dataset with missing values imputed as last value carried forward, the number of participants meeting criteria for PTSD at the 2.5-year follow-up reduced further to 8, $\chi^2(1, N = 27) = 3.71, p = 0.05$.

PTSD Symptom Clusters

Avoidance/numbing symptoms were higher at baseline than either re-experiencing symptoms or hyperarousal symptoms, and remained so for the duration of the follow-up visits. By 24 weeks, avoidance/numbing symptoms had reduced significantly to an average level of 14.0 (1.4), and though remaining significantly decreased from baseline, levels increased slightly to an average level of 15.4 (1.2) at the 2.5-year visit. The effect size for avoidance/numbing symptoms at 128 weeks was 0.7; avoidance/numbing model: $F(4, 83) = 37.8, p < .0001$.

Re-experiencing symptoms reduced significantly from an average baseline level of 13.1 (1.0) to 9.9 (0.9) at 24 weeks. Re-experiencing symptoms remained significantly reduced by the 2.5-year follow-up but elevated slightly to an average level of 10.5 (0.8). The effect size for re-experiencing symptoms was 0.5 at 128 weeks; re-experiencing model: $F(4, 83) = 8.5, p < .0001$.

Hyperarousal symptoms also reduced significantly from an average baseline level of 14.3 (1.0) to 10.8 (1.1) at 24 weeks. By the 2.5-year visit, hyperarousal symptoms remained significantly decreased from baseline levels and stable from their average level at 24 weeks, 10.7 (0.9). Hyperarousal symptoms were the only cluster of PTSD symptoms that did not elevate at the 2.5-year follow-up. The effect size for hyperarousal symptoms was 0.9; hyperarousal model: $F(4, 83) = 16.9, p < .0001$.

Discussion

The results of the MICAS-II follow-up study support the notion that MBSR may be an effective treatment for individuals with a history of CSA. The maintenance of all significant changes observed since the initial baseline demonstrates that, in this sample, an intervention involving meditation, yoga, stretching, and enhanced body awareness was quite effective in reducing emotional distress over the long term. Given that CSA affects a large and diagnostically heterogeneous population, these results are encouraging. Although the study was conducted with a small sample of 19 individuals, this group comprised 73% of the initially consented group, and 83% of those who had participated in at least half of the original intervention. In addition to sample size, the findings from the original MICAS study are limited by the lack of a control group. Ideally, future research would attempt to replicate these findings using a larger sample and a controlled randomized design.

A final limitation involves the fact that participants who attended the follow-up study were aware that they would eventually meet with their original MBSR instructor. While self-report data were collected by a research assistant unknown to the participants, future research would do well to disentangle data collection from possible distortions due to social desirability bias.

Furthermore, future efforts could explicitly explore the mechanisms of change responsible for the observed impact of MBSR in this population. For example, the present moment "I," as encouraged and fostered via mindfulness meditation, likely differs qualitatively from the phenomenon of peritraumatic dissociation that is emblematic of attempts to avoid and protect oneself from overwhelming traumatic experiences. The mindful state fostered and encouraged in MBSR is characterized by a focus on the present and an awareness of the transitory nature of thought and feeling. Such a stance may represent an effective means for confronting memories of childhood trauma.

Other authors have noted this potential, writing that mindfulness and acceptance-based interventions may be uniquely effective in fostering behavior contradictory to the chronic avoidance that often underlies anxiety disorders and pathological trauma reactions (Thompson, Arnkoff, & Glass, 2011; Follette, Palm, & Pearson, 2006; Batten, Orsillo, & Walser, 2005; Treanor, 2011).

Therefore, future research might explore whether mindfulness interventions function as a form of exposure therapy, a means of systematic desensitization in which survivors of CSA, demonstrated to be at great risk of dissociation, are compassionately and consistently encouraged to engage the present moment. Rather than avoid, ruminate, or dissociate, individuals may develop new and more adaptive means of managing intrusive memories and other trauma symptoms.

Indeed, mindfulness-based interventions have demonstrated efficacy in reducing cognitive and physiological reactivity to stress and negative mood states, lending support to the notion that such treatments may decrease avoidant behavior (Brewer et al., 2011; Raes, Dewulf, Van Heeringen, & Williams, 2009). Therefore, it is imperative that future research continue exploring the mechanisms by which MBSR, and meditation more generally, may be a particularly effective skill for those learning to tolerate the normally feared and avoided distress caused by CSA.

Conclusion

Despite its limitations, the present study provides evidence to support the hypothesis that MBSR may have substantial benefits that can be maintained for at least 2.5 years. This outcome is important given the difficulty of maintaining long-term behavior change, especially for a population of victims for whom the stigma of seeking treatment can be a tremendous barrier to change. Such data continue to build the evidence base for the sustained efficacy of MBSR, not only in samples with chronic pain or anxiety but also for those victims of CSA. While MBSR in this population needs further study, the MICAS-II project suggests that this group intervention is effective for those recovering from the complicated sequelae of CSA.

References

- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, 10(2), 125–143. doi:10.1093/clipsy/bpg015
- Batten, S. V., Orsillo, S. M., & Walser, R. D. (2005). Acceptance and mindfulness-based approaches to the treatment of posttraumatic stress disorder. In S. M. Orsillo & L. Roemer (Eds.), *Acceptance and mindfulness-based approaches to anxiety: Conceptualization and treatment*. New York, NY: Springer.
- Beck, A. T., Steer, R. A., Ball, R., & Ranieri, W. F. (1996). Comparison of Beck Depression Inventories–IA and –II in psychiatric outpatients. *Journal of Personality Assessment*, 67(3), 588–597. doi:10.1207/s15327752jpa6703_13
- Blackwell, E., Mendes de Leon, C. F., & Miller, G. E. (2006). Applying mixed regression models to the analysis of repeated-measures data in psychosomatic medicine. *Psychosomatic Medicine*, 68(6), 870–878. doi:10.1097/01.psy.0000239144.91689.ca
- Brewer, J. A., Sinha, R., Chen, J. A., Ravenna, N., Babuscio, T. A., Nich, C., . . . Rounsaville, B. J. (2011). Mindfulness training and stress reactivity in substance abuse: results from a randomized, controlled stage I pilot study. *Substance Abuse*, 30(4), 306–317. doi:10.1080/08897070903250241.Mindfulness
- Briere, J., & Elliott, D. M. (2003). Prevalence and psychological sequelae of self-reported childhood physical and sexual abuse in a general population sample of men and women. *Child Abuse & Neglect*, 27(10), 1205–1222. doi:10.1016/j.chiabu.2003.09.008
- Briere, J., & Jordan, C. E. (2009). Childhood maltreatment, intervening variables, and adult psychological difficulties in women: An overview. *Trauma, Violence, & Abuse*, 10(4), 375–388. doi:10.1177/1524838009339757
- Briere, J. N. (1992). *Child abuse trauma: Theory and treatment of the lasting effects*. Thousand Oaks, CA: Sage.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822–848. doi:10.1037/0022-3514.84.4.822
- Carlson, L. E., & Brown, K. W. (2005). Validation of the Mindful Attention Awareness Scale in a cancer population. *Journal of Psychosomatic Research*, 58(1), 29–33. doi:10.1016/j.jpsychores.2004.04.366
- Chard, K. M. (2005). An evaluation of cognitive processing therapy for the treatment of posttraumatic stress disorder related to childhood sexual abuse. *Journal of Consulting and Clinical Psychology*, 73(5), 965–971. doi:10.1037/0022-006X.73.5.965
- Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, 13(3), 595–605. doi:10.1017/S0033291700048017

- Deyo, M., Wilson, K. A., Ong, J., & Koopman, C. (2009). Mindfulness and rumination: Does mindfulness training lead to reductions in the ruminative thinking associated with depression? *Explore*, Sep-Oct, 5(5), 265–271. doi:10.1016/j.explore.2009.06.005.
- Dube, S. R., Anda, R. F., Felitti, V. J., Chapman, D. P., Williamson, D. F., & Giles, W. H. (2001). Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: Findings from the adverse childhood experiences study. *Journal of the American Medical Association*, 286(24), 3089–3096. doi:10.1001/jama.286.24.3089
- Finkelhor, D., & Dzuiba-Leatherman, J. (1994). Victimization of children. *American Psychologist*, 49(3), 173–183. doi:10.1037/0003-066X.49.3.173
- Foa, E. B., Keane, T. M., & Friedman, M. J. (2000). *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies*. New York, NY: Guilford Press.
- Follette, V., Palm, K. M., & Pearson, A. N. (2006). Mindfulness and trauma: implications for treatment. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 24(1), 45–61. doi:10.1007/s10942-006-0025-2
- Gayner, B., Esplen, M. J., DeRoche, P., Wong, J., Bishop, S., Kavanagh, L., & Butler, K. (2012). A randomized controlled trial of mindfulness-based stress reduction to manage affective symptoms and improve quality of life in gay men living with HIV. *Journal of Behavioral Medicine*, 35(3), 272–285.
- Grossman, P., Tiefenthaler-Gilmer, U., Raysz, A., & Kesper, U. (2007). Mindfulness training as an intervention for fibromyalgia: Evidence of postintervention and 3-year follow-up benefits in well-being. *Psychotherapy and Psychosomatics*, 76(4), 226–233. doi:10.1159/000101501
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1–25. doi:10.1016/j.brat.2005.06.006
- Kabat-Zinn, J. (2005). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness* (15th anniversary ed.). New York, NY: Delta Trade Paperback/Bantam Dell.
- Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985). The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of Behavioral Medicine*, 8(2), 163–190. doi:10.1007/BF00845519
- Kearney, D. J., McDermott, K., Malte, C., Martinez, M., & Simpson, T. L. (2012). Association of participation in a mindfulness program with measures of PTSD, depression and quality of life in a veteran sample. *Journal of Clinical Psychology*, 68(1), 101–116. doi:10.1002/jclp.20853
- Kimbrough, E., Magyari, T., Langenberg, P., Chesney, M., & Berman, B. (2010). Mindfulness intervention for child abuse survivors. *Journal of Clinical Psychology*, 66(1), 17–33.
- Lev-Wiesel, R. (2008). Child sexual abuse: A critical review of intervention and treatment modalities. *Children and Youth Services Review*, 30(6), 665–673. doi:10.1016/j.childyouth.2008.01.008
- Linehan, M. M. (2000). The empirical basis of dialectical behavior therapy: Development of new treatments versus evaluation of existing treatments. *Clinical Psychology: Science and Practice*, 7(1), 113–119. doi:10.1093/clipsy/7.1.113
- Lorenz, T. A., Pulverman, C. S., & Meston, C. M. (2013). Sudden gains during patient-directed expressive writing treatment predicts depression reduction in women with history of childhood sexual abuse: Results from a randomized clinical trial. *Cognitive Therapy and Research*, 37(4), 690–696. doi:10.1007/s10608-012-9510-3
- Malinowski, P. (2013). Neural mechanisms of attentional control in mindfulness meditation. *Frontiers in Neuroscience*, 7, 8.
- Messman-Moore, T. L., & Long, P. J. (2003). The role of childhood sexual abuse sequelae in the sexual revictimization of women: An empirical review and theoretical reformulation. *Clinical Psychology Review*, 23(4), 537–571. doi:10.1016/S0272-7358(02)00203-9
- Miller, J. J., Fletcher, K., & Kabat-Zinn, J. (1995). Three-year follow-up and clinical implications of a mindfulness meditation-based stress reduction intervention in the treatment of anxiety disorders. *General Hospital Psychiatry*, 17(3), 192–200. doi:10.1016/0163-8343(95)00025-M
- Raes, F., Dewulf, D., Van Heeringen, C., & Williams, J. M. G. (2009). Mindfulness and reduced cognitive reactivity to sad mood: Evidence from a correlational study and a non-randomized waiting list controlled study. *Behaviour research and therapy*, 47(7), 623–627. doi:10.1016/j.brat.2009.03.007
- Resick, P. A., & Schnicke, M. K. (1992). Cognitive processing therapy for sexual assault victims. *Journal of Consulting and Clinical Psychology*, 60(5), 748–756. doi:10.1037/0022-006X.60.5.748

- Thompson, R. W., Arnkoff, D. B., & Glass, C. R. (2011). Conceptualizing mindfulness and acceptance as components of psychological resilience to trauma. *Trauma, Violence & Abuse, 12*(4), 220–235. doi:10.1177/1524838011416375
- Treanor, M. (2011). The potential impact of mindfulness on exposure and extinction learning in anxiety disorders. *Clinical psychology review, 31*(4), 617–625. doi:10.1016/j.cpr.2011.02.003
- Weathers, F., Litz, B., Huska, J. A., & Keane, T. M. (1994). *PCL-C for DSM-IV (PTSD Checklist)*. Boston, MA: National Center for PTSD, Behavioral Science Division, Boston VAMC.
- Widom, C. S., Czaja, S. J., & Dutton, M. A. (2008). Childhood victimization and lifetime revictimization. *Child Abuse & Neglect, 32*(8), 785–796. doi:10.1016/j.chiabu.2007.12.006