

# Mindfulness Practices: Pragmatic Tool for Addressing the Mindlessness Among Healthcare Providers

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## Abstract:

Mindfulness is untethered by past, present, and future constraints. Its versatility and effectiveness have led to broad application in the medical domain, and these approaches, such as programs like Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT), have further solidified their reputation as pragmatic tools, especially in patient care, contributing to improving people's well-being and healthcare outcomes. However, healthcare providers need to be recipients of mindfulness practices since there is so much mindlessness among healthcare providers, presenting as misdiagnosis, delayed treatment, suboptimal care, etc. Therefore, since mindfulness practices have been proven to effectively reduce various kinds of mindlessness, they should extend their benefits to healthcare providers who, like anyone else, can grapple with moments of mindlessness in their work.

**Keywords:** Mindfulness, medical domain, well-being, delayed treatment

## 1. Introduction

Mindfulness embodies the nonjudgmental presence in the moment (Langer, 2014), untethered by the constraints of the past, present, and future. Its versatility and effectiveness have led to broad application in the medical domain, and these approaches, such as programs like Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT), have further solidified their reputation as pragmatic tools, especially in patient care, contributing to improving people's well-being and healthcare outcomes. However, healthcare providers need to be recipients of mindfulness practices since there is so much mindlessness among healthcare providers, presenting as misdiagnosis, delayed treatment, suboptimal care, etc. Therefore, since mindfulness practices have been proven to effectively reduce various kinds of mindlessness, they should extend their benefits to healthcare providers who, like anyone else, can grapple with moments of mindlessness in their work. This literature review aims to emphasize the significance of promoting awareness about the phenomenon of mindlessness and integrating effective mindfulness practices among healthcare providers. This paper will provide a comprehensive overview and critical assessment of the real-world cases regarding mindlessness and applications of mindfulness practices. It will shed light on the benefits and challenges of integrating these practices into the broader healthcare system.

## 2. Mindlessness Among Healthcare Providers

As a counterpart to mindfulness, mindlessness signifies

a state of inattentiveness to the present moment. In healthcare, mindlessness takes on particular significance, as healthcare providers are not immune to the moments of mindlessness despite their professional training and expertise. Paradoxically, they are sometimes too proficient to be mindful enough. With growing experience, potential pitfalls from mindlessness in the medical field emerge

- 1) Automatic behavior: A heightened susceptibility to overlooking subtle nuances among diseases with seemingly identical clinical symptoms but fundamentally different natures.
- 2) Trapped by categories: A risk of becoming overly fixated on specific symptoms while disregarding the deeper root causes of illnesses.
- 3) Acting from one perspective: A way to maximize the implicit biases that can inadvertently shape healthcare providers' decisions in a narrow and inconsiderate manner.

In these states of mindlessness, healthcare providers may unknowingly relinquish their grasp on important decision-making, relying excessively on established routines and past experiences, which fails to commit patients to accurate diagnosis, timely treatment, and optimal care delivery, ultimately impacting patient outcomes and well-being.

### 2.1 Automatic Behavior

Repetition can often lead to mindlessness in nearly any profession. When tasks or processes become overly familiar, they can create a sense of routine or rhythm that may lead to mental complacency or laziness (Langer, 2014). For instance, consider the context of practicing the piano. Initially, achieving decent piano performance requires mastering various essential elements, including maintaining a stable rhythm, playing the correct and

distinguished notes in the left and right hand separately, applying the appropriate strength to each note, and sometimes utilizing pedals. However, as one's proficiency in piano playing increases, these specific processes may gradually become less consciously attended to as the skill becomes more automated through muscle memory rather than active, mindful engagement. As mindlessness takes hold, individuals might unintentionally cede control over their performance, relying excessively on muscle memory to execute tasks intuitively, surrendering their performance to chance. Healthcare providers, like professionals in any field, may also encounter repetitive situations and routines as they diagnose and treat patients, which could lead to a moment of mindlessness. According to Horowitz et al., the likelihood of making an accurate diagnosis is positively correlated with the number of characteristic symptoms (Horowitz, 1981), demonstrating that the cumulative experience may serve as a reference, unconsciously forming the mental heuristics that lead the healthcare providers to augment the automatic circuit during the process of diagnostic decision. Similarly, the study conducted by Raymond Kitziger, Joost T.P. Kortlever, and David Ring found that musculoskeletal clinicians explicitly and implicitly favor specific over nonspecific illnesses, implying that clinicians are more inclined to the familiar illness, suggesting that specific symptoms receive more attention and consideration compared to the nonspecific symptoms that are not perceived as causally relevant (Kitziger et al., 2022).

## 2.2 Trapped by Categories

In Christopher Chabris and Daniel Simons' seminal study on inattention blindness, the failure to notice the presence of a gorilla during the observation underscored how individuals can inadvertently overlook unexpected things. Interestingly, the implications of this study reach beyond its initial revelation. In a subsequent replication of the gorilla experiment, participants who had previously engaged in the first iteration exhibited enhanced mindfulness due to their training in heightened attentiveness. Surprisingly, although they did register the gorilla's presence, their newfound mindfulness inadvertently led to a fresh oversight—an obliviousness to a novel variable — The changing color of the curtain behind. This intriguing juxtaposition resonates with the law of unintended consequences, an unexpected outcome of purposeful action, underscoring the category created by temporary mindfulness: While mindfulness imparts heightened awareness and attentiveness in a certain way, it falls into the constraints of that particular attention category and unconsciously elicits ignorance from another aspect.

In clinical settings, healthcare providers risk being overly

dependent on experience, training, and fixed knowledge. Li's study highlighted the challenge of early detection of colon cancer due to its shared symptoms with common and less severe ones (Li, 2023). Similarly, the study conducted by Fei Gao pointed out that cysts are easily misdiagnosed as solid lesions because of their unclear morphological specificity and anechoic or hypoechoic nature (Gao, 2023). Aside from the physical misdiagnosis, mental health also undergoes the same issues. The study conducted by Van Schalkwyk examines five cases where individuals with prior ASD diagnoses were also diagnosed with psychosis. It suggests that the so-called 'psychotic' symptoms in these cases could be attributed to their underlying ASD rather than the Psychotic disorder itself. A case reported by Hussain Alyami described the panic disorder as being misdiagnosed as epilepsy for nine years, given their identical clinical symptoms (Alyami, 2023). These examples show consistent mindlessness in the healthcare setting, in which these presented misdiagnoses were unduly focused on the familiar and categorically clear symptoms while neglecting the underlying causes.

## 2.3 Acting from a Single Perspective

Much like the skilled detective who understands that a singular piece of evidence rarely unveils the full truth, our perceptions and judgments are shaped by the lenses through which we view the world from a unique perspective. Numerous studies have shed light on the implicit biases and stereotypes harbored by healthcare providers from their single perspective, often influenced by demographic factors such as race, gender, age, and so on. For instance, a study by Trawalter revealed disparities in pain perception between Black and White patients, in which blacks are considered to experience less pain than their white counterparts (Trawalter et al., 2012). Similarly, another study conducted by Colin Zestcott highlighted the significance of racial concordance between patients and healthcare providers, emphasizing that racial minorities often perceive differential treatment when their healthcare provider's race differs from their own (Zestcott et al., 2016). Consistent studies have shown that healthcare providers hold implicit biases indicative of more negative attitudes toward African Americans than Whites, more negative attitudes towards Latinos than Whites, and more negative attitudes towards native Americans than Whites. Healthcare providers also exhibit more implicit bias towards socially vulnerable groups such as obese individuals, LGTPQ groups, lower social status individuals, injecting drug users, and individuals with disabilities.

## 3. The Effects of Mindfulness Practices on Implicit Biases among Healthcare

## Providers

The history of mindfulness practice is a journey that spans thousands of years, from its origins in ancient Buddhist meditation to its transformation into a scientifically recognized approach to mental and physical well-being by John Kabat Zin. Mindfulness has now been defined as a specific mode of self-directed attention in which a person intentionally focuses on present-moment experiences while adopting a sense of acceptance, nonjudgment, and curiosity toward whatever occurrences may arise in consciousness (Bishop et al., 2004; Brown & Ryan, 2003).

### 3.1 Mindfulness Practices Can Reduce Automatic Response in Both Self-Directed and Involuntary Manner

Even though people can try to inhibit their internal implicit biases, it often occurs unconsciously. Nonetheless, mindfulness practices have consistently demonstrated the ability to reduce automatic behaviors across various contexts:

In a study by Adam Lueke and Bryan Gibson, the primary aim was to investigate the impact of mindfulness meditation on reducing implicit out-group bias, specifically about race and age. The results demonstrated that the mindfulness group exhibited reduced implicit age bias compared to those in the control group evaluated by IATs. Quad model analyses further confirmed that this reduction was associated with decreased automatic negative associations. Specifically, there was a lower activation of negative Black associations in the mindfulness group, with a trend in the same direction for White associations. Discriminability analysis showed that the control condition had greater discriminability than the mindfulness condition. In summary, mindfulness practices, which encouraged heightened self-awareness in a nonjudgmental manner, led to decreased implicit bias against both Black individuals and older people in the race and age IATs when compared to the control group (Lueke & Gibson, 2015)

Another study showed that mindfulness dissociates the relation between automatic alcohol motivation and heavy drinking (Ostafin et al., 2012), in which the results indicated that participants who received mindfulness training demonstrated a weaker relation between automatic alcohol motivation and heavy drinking compared to individuals who did not receive the mindfulness intervention, as assessed by the IATs. Moreover, a study by Maja Djikic et al. explored mindfulness's impact on automatic stereotype-activation behaviors related to the elderly and gender. Their findings indicated that increased mindfulness, characterized by greater active categorization, led to a reduction in

automatically activated stereotype behaviors, resulting in the prevention of automatic stereotype activation (Djikic et al., 2008). Additionally, a study focusing on attentional processes found that brief mindfulness training enhanced Prepulse Facilitation (PPF), which is associated with concentrative or selective attention. PPF measures orienting or selective attention abilities, suggesting that mindfulness practices can improve attentional focus on specific stimuli and potentially reduce automatic processes (Asli et al., 2021). The consistent increase in insular cortex activity observed in functional magnetic resonance imaging studies following mindfulness-based interventions suggests that mindfulness may enhance cognitive control processes, including attention, working memory, and decision-making (Young et al., 2018).

Implicit bias is intrinsically tied to the automatic nature of our judgments and choices. These studies, by showcasing the effectiveness of mindfulness practices in reducing automatic responses, provide valuable insights into mindfulness's pivotal role in cultivating deliberate and mindful decision-making processes. This highlights the potential of mindfulness meditation as a valuable tool for increasing awareness, mitigating unconscious biases, and ultimately elevating the quality of patient interactions and healthcare delivery.

### 3.2 Mindfulness Practices Could Facilitate Empathy, Compassion, and Sense of Well-Being While Inhibit Stress and Emotional Exhaustion that Activate Mindlessness

Notably, research conducted by Tom A. Hutchinson and Stephen Libensheds shed light on the notion that intensive clinical training exposure, as experienced by medical students, may lead to emotional exhaustion, ultimately fostering a mindlessness. To delve deeper into understanding how mindfulness practices impact stress reduction comprehensively, a diligent exploration of their holistic effects is essential. This pursuit led to the initiation of a comprehensive study spearheaded by Parsons et al., which meticulously examined the multifaceted outcomes associated with Mindfulness-Based Cognitive Therapy (MBCT) and Mindfulness-Based Stress Reduction (MBSR). Participants engaged in standard-format MBCT and MBSR programs typically completed roughly 60% of their assigned formal home practice—a commitment slightly below the recommendations of conventional intervention formats (Kabat-Zinn, 1990; Segal et al., 2013). Interestingly, this study unveiled a small yet statistically significant positive correlation between the extent of practice and treatment outcomes, suggesting even more substantial positive associations if participants adhered more closely to the prescribed practice durations (Parsons et al., 2017).

Other than sole stress, further studies revealed significant reductions in symptoms of mood disturbance and increases in mindfulness, spirituality, and self-compassion after mindfulness participation. With regard to empathy, a significant increase was seen in perspective-taking and a significant decrease in personal distress (Birnie, 2009). The study focused on mindfulness interventions for emergency medical technicians (EMS) and discovered a significant rise in compassion satisfaction and reduced stress after the mindfulness intervention. A significant negative correlation between non-reactivity, the ability to stay calm and objective when faced with thoughts and feelings that would typically trigger an emotional response, and perceived stress, further underscoring the significance of stress reduction in preventing implicit biases of mindlessness (Ducar et al, 2020)

These studies demonstrate that mindfulness interventions hold the potential to cultivate empathy, compassion, and an overall sense of well-being while concurrently acting as a deterrent against stress and emotional exhaustion, factors that can induce mindlessness.

#### **4. Challenges and Considerations**

A significant limitation across these studies is the absence of long-term follow-up observations. The mindfulness interventions implemented in these research endeavors have predominantly demonstrated their efficacy in the short term. However, the enduring impact of mindfulness practices on participants remains a critical area for further investigation, particularly in professions like healthcare, where the ability to stay consistently mindful and prevent automatic biases is the paramount responsibility. Assessing the duration of mindfulness practice effects is fundamental for understanding their sustainability and gauging their practical applicability in professions where continuous awareness and the mitigation of implicit biases are essential components of daily practice. Another notable limitation is the repetitive use of Implicit Association Tests (IATs) as the primary measure for assessing implicit bias. While IATs are a valuable tool for evaluating implicit biases, their repeated application across various studies might introduce a potential source of bias itself. Participants who have previously completed similar IATs may become more familiar with the test format, potentially affecting their responses and reducing the measure's sensitivity over time.

Moreover, to some extent, the lack of measures to address the self-prophecy fallacy when evaluating the mindfulness interventions adopted in these studies could be misleading. This phenomenon could occur when participants have preconceived expectations that mindfulness practices will yield positive outcomes. While it's encouraging

that participants may anticipate beneficial effects from mindfulness, this presents a challenge regarding objective assessment. The presence of self-prophecy bias can potentially obscure the true impact of mindfulness interventions, as participants' expectations might influence their reported experiences and outcomes. To mitigate this bias and ensure a more accurate evaluation of mindfulness interventions, future studies should consider implementing measures to account for the self-prophecy fallacy, thus providing a more comprehensive understanding of the practice's genuine effects.

#### **5. Conclusion**

As demand for healthcare continues to surge, mindfulness has the potential to play a pivotal role in improving the quality of care and enhancing the well-being of both providers and patients, as it offers a promising avenue for reducing implicit biases among healthcare providers, enhancing awareness, reducing automatic responses, and promoting emotional factors conducive to health care impartiality. These practices can substantially optimize patient care, interaction, and healthcare outcomes by counteracting the adverse consequences of mindlessness. However, it is also crucial for further research to fully integrate mindfulness into the real settings of the healthcare system and continue the long-term observations for consistent assessment. Additionally, it is advisable to employ a diversified array of measures for evaluating implicit biases and mindfulness in future studies, avoiding overly generalized assessments to provide a more nuanced understanding of their impact.

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