

Mindfully aware and open: Mitigating subjective and objective financial vulnerability via mindfulness practices

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Abstract

Our research presents mindfulness as a potential intervention to mitigate financial vulnerability, defined as the ability to handle unexpected future financial setbacks. As potential interventions to mitigate consumer financial vulnerability, we provide a conceptual framework on how two types of mindfulness practices (i.e., non-judgmental awareness and openness to experience) can mitigate the subjective and objective financial vulnerability differently. We suggest ways to manipulate the two types of mindfulness and discuss the results of our initial pilot study, focusing on lower-income consumers. In addition, we propose fruitful avenues for future research and provide recommendations for managers and policymakers to better address

All authors contributed equally to this work.

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consumer financial vulnerability and enhance consumer welfare via mindfulness practice.

KEYWORDS

consumer financial vulnerability, consumer well-being, mindfulness interventions, non-judgmental awareness, openness to experience

1 | INTRODUCTION

For the first time in nearly a decade, the median household income in the United States of America is decreasing (McCormick & Overberg, 2021), and inflation is soaring (Wiseman, 2022). Although inflation is outpacing incomes, many Americans continue to frivolously spend, becoming increasingly financially vulnerable and progressively worried. Specifically, about 30 percent of U.S.A adults worry every day or almost every day about the amount of debt they have and saving for retirement, and about 27 percent worry about their ability to pay their bills (Horowitz et al., 2021). According to the National Endowment for Financial Education, nearly 7 in 10 adults faced an unexpected financial setback in 2020, and more than half lived paycheck to paycheck (NEFE, 2020).

Financial vulnerability is defined as the likelihood that an individual will experience financial hardship—a state of distress where a person cannot maintain their standard of living (O'Connor et al., 2019). Unlike financial well-being, which primarily focuses on one's present financial state (e.g., Bruggen et al., 2017), financial vulnerability focuses on the future, specifically (1) the likelihood of having to deal with a financial hardship or setback, and ultimately, (2) the ability to overcome this financial hardship should it arise. Financial vulnerability has both subjective components (perceived likelihood of an unexpected financial setback and the ability to handle an unexpected financial setback) and objective components (actual likelihood of an unexpected financial setback and financial ability to handle an unexpected financial setback).

While solutions like auto-enrolment in savings and retirement plans and enhancing one's financial literacy could have significant implications for improving objective financial vulnerability by developing a financial cushion that could be used in the event of a financial setback (Madrian & Shea, 2001), shifting individuals' *perceived* financial state may be an important first step. In other words, individuals will not be able to engage in actions to objectively enhance financial states when they have a mental block due to financial stress stemming from their perceptions of financial current and future states. Individuals who struggle with subjective financial vulnerability tend to be emotionally stressed about their situation, entering a scarcity-induced “tunnel,” where they are unable to acquire new financial skills owing to their narrowed, present-focused mindset (Mullainathan & Shafir, 2013). While possible for anyone at any level of objective financial vulnerability, such mental blocks are most likely to be evident among lower-income individuals, who are often, objectively, the most financially vulnerable (Bisaha 2022). Such individuals will need to first shift their mindset out of the state of perceived financial helplessness before considering actions to initiate a change.

In the current research, we propose that the “non-judgmental awareness mindfulness” intervention is a key tool for those who perceive themselves as highly financially vulnerable as it calms

the mind and recalibrates the current financial state. The “openness to experience mindfulness” intervention—a tool for those who have accepted their current financial state or who do not feel financially vulnerable—may be a better tool as it would encourage action, allowing individuals to improve their financial state, thus mitigating objective financial vulnerability.

While the general transformative potential of mindfulness in enhancing consumer, societal, and environmental well-being is well recognized (e.g., see Bahl et al., 2016), limited research exists on the impact of mindfulness on financial decision-making. The extant research suggests that mindfulness may significantly shape consumers' money attitudes and credit intentions/use (Pereira & Coelho, 2019). It can be implemented as a therapeutic modality to promote financially prudent life decisions (Smith et al., 2016). In addition, higher levels of mindfulness are associated with a reduced discrepancy between one's existing and desired financial state (Brown et al. 2009). Mindfulness may improve one's relationship with money by reducing insecurities and increasing the level of satisfaction with present circumstances (Kasser, 2009) while enhancing one's knowledge of the true nature of money (Kinder & Galvan, 2006), reducing materialistic cravings, and magnifying the strength of certain intrinsic values, such as community, relationships, and self-actualization (Brown and Kasser 2005). Despite this work, there remains a gap in addressing the effects of mindfulness on financial vulnerability. In particular, can mindfulness help shift one's mindset from a “tunnel vision” and a constant worry to acceptance of one's financial state and an increased willingness to improve financial decisions?

Our paper contributes to the existing literature by (1) bringing together two different facets of mindfulness, each with different implications in terms of mitigating subjective versus objective financial vulnerability, and (2) presenting an empirical method to manipulate the two types of mindfulness and their impact on financial perceptions and intentions via a pretest and a pilot study, inspiring further research in this area. We first explore two pathways of mindfulness: the Eastern tradition, which emphasizes non-judgmental awareness, and the Western tradition, which emphasizes openness to experiences (Kabat-Zinn, 1994, 2009; Langer, 1989, 2005; and for a full comparison of the two schools of thought, see Hart et al., 2013). We then conceptually argue how these two pathways of mindfulness might differently impact financial vulnerability. Next, we present a pretest examining the potential to manipulate two types of mindfulness, and a pilot study that focuses on lower-income individuals and provides initial evidence of these two distinct mindfulness dimensions and their impact on financial perceptions and intentions. Just as mindfulness has been shown to reduce stress and enhance creativity, we explore how mindfulness could benefit financially vulnerable individuals by getting them out of their scarcity-induced “tunnel” and preparing them to eventually make decisions and engage in activities that will help counteract their financial vulnerability.

2 | FINANCIAL VULNERABILITY: OBJECTIVE AND SUBJECTIVE

2.1 | Importance of financial vulnerability

Approximately half of the non-retired adults say that the economic consequences of Covid-19 have made it more difficult for them to achieve their future financial goals (Horowitz et al., 2021). This is not surprising given that the Organization for Economic Co-operation and Development (OECD, 2020) noted that recent developments, such as the Covid-19 pandemic, have led mainstream consumers to be more financially and psychologically vulnerable,

especially intensifying the vulnerability of elderly and lower-income consumers. Employers are also taking note, as according to the PwC, 2021 Employee Financial Wellness (EFW) survey, finances are the leading cause of employee stress, above their job, health, and relationship combined, with two-thirds stating that their financial stress has increased since the start of the pandemic (PwC, 2021). Subsequently, an individual's state of financial vulnerability affects their financial well-being and overall well-being in both their personal and professional life. When service providers do not act with appropriate care, financially vulnerable consumers tend to suffer (Netemeyer et al., 2018; Personal Finance Research Centre, 2017).

Various factors influence financial vulnerability, including financial education (Hadar et al., 2013), income and income losses, financial standing, and social class (Piff et al., 2010). Individuals often have difficulty processing financial information and making sense of where they fall on the financial vulnerability continuum, both objectively and subjectively. Many people struggle with considering the implications of their current financial decisions on their future financial situation. Researchers and organizations alike have been working to determine the best practices for addressing primarily the objective financial vulnerability of their constituents (whether consumers or employees). One strategy aims to increase financial literacy, given the overall low levels of financial literacy in the United States of America, as financially literate consumers should, theoretically, have the more advanced skills and levels of knowledge needed to make sound financial decisions (Lusardi & Mitchell, 2007). The Consumer Financial Protection Bureau (CFPB) has developed resources to educate consumers on various financial topics, such as mortgages, savings, and loans. Numerous ways to measure what is termed “financial literacy” exist, yet most financial literacy measures are related to knowledge of investing or the ability to perform numerical calculations, which may not be directly relevant to an individual's ability to manage their day-to-day finances and financial well-being (Huston, 2010; Lusardi et al., 2010), and accurate responses do not consistently guarantee positive financial outcomes (Schmeiser & Seligman, 2013).

Beyond increasing financial literacy, other research has examined ways to mitigate financial vulnerability through automating savings (Rabinovich & Webley, 2007), adding gamification features to financial apps (Bayuk & Altobello, 2019), and applying “just-in-time” interventions (Fernandes et al., 2014), from the viewpoint that making better financial decisions today should help if a financial setback were to occur in the future. Organizations have been trying to figure out how to handle financial vulnerability, with many institutions—such as Chipotle, Chobani, and Verizon—joining the Worker Financial Wellness Initiative, as research shows that financial wellness improves not just overall well-being but also innovation, customer satisfaction, employee turnover, productivity, and more (e.g., Garman et al., 1996).

While much literature is dedicated to mitigating objective financial vulnerability, the current research emphasizes the importance of considering both subjective and objective vulnerability simultaneously because each vulnerability encompasses different mental and behavioral blocks that prevent individuals from mitigating the two vulnerabilities separately. We also note that efforts to mitigate subjective vulnerability should precede efforts to mitigate objective vulnerability for certain individuals because the perception of high levels of financial vulnerability may prevent such individuals from taking actions to mitigate their objective financial vulnerability.

2.2 | Types of financial vulnerability

Financial vulnerability has both subjective and objective components, as this construct refers to the ability to handle an unexpected financial setback. Whereas objective financial vulnerability

deals with (1) the likelihood of a significant financial setback occurring and (2) a consumer's actual ability to handle an unexpected financial setback, subjective financial vulnerability refers to (1) the consumer's perception of the likelihood of an unexpected financial setback occurring and (2) their perception of their ability to financially handle an unexpected financial setback.

To illustrate the difference between subjective and objective financial vulnerability, we introduce four friends in town. *Charlie* is financially in a good place, living within his means, and could probably handle an emergency financial setback if one were to arise soon. Appropriately so, Charlie is content with his level of financial security and not worried about an unexpected setback, and is neither objectively nor subjectively financially vulnerable. In contrast, *Tommie* is much more financially vulnerable, living beyond his means while trying to keep up with the Joneses, and would have difficulties if an unexpected bill arose. Yet, unlike Charlie, Tommie's objective level of financial vulnerability and his perceptions of his financial vulnerability do not align, as, in his mind, an unexpected financial emergency is very unlikely, and he may have a positive perception of his financial situation and his ability to deal with potential future financial setbacks, despite the reality being the contrary.

Our third friend, *Valentine*, is objectively financially vulnerable like Tommie, but, unlike Tommie, she realizes that an unexpected financial setback could occur, and that she may have difficulty overcoming such an event. She may be living paycheck to paycheck or continuously spending way beyond her means despite earning a higher income, but regardless, she feels stressed about her financial circumstances. Either way, Valentine realizes that she could be in financial trouble if an unexpected emergency arose. Lastly, *Casey* experiences a similar level of anxiety about financial vulnerability as Valentine, but Casey is actually not in an objectively financially vulnerable state and could likely handle a financial setback if one were to arise. Although realistic about her spending and effective at financial planning, Casey may still find herself constantly worried and stressed from potential "what if" scenarios and unexpected financial setbacks. With these four examples of individuals who vary in their objective and subjective levels of financial vulnerability, we demonstrate that the objective reality and subjective perceptions of it may not always align when it comes to financial vulnerability.

Objective financial vulnerability typically refers to debt, adequacy of savings, and the ability to pay one's bills (Anderloni et al., 2012; O'Connor et al., 2019). Traditionally, the group facing higher degrees of vulnerability includes individuals with low or insecure incomes who are often renting their homes, supporting children, possibly disabled or suffering from illness, or even experiencing a relationship breakdown (Appleyard et al., 2016). Hoffmann and McNair (2019) more recently noted 12 risk factors regarding financial vulnerability, including income, education, physical and mental health, debt, and financial literacy. While those with lower levels of financial vulnerability can also be "fragile" with a risk of moving to a state of higher financial vulnerability, those who are already highly vulnerable have a lower probability of moving to a less financially vulnerable state (Hoffmann et al., 2021; Tully et al., 2015).

Subjective financial vulnerability refers to self-assessed attitudes and perceptions regarding the increased likelihood of experiencing financial hardship that would be difficult to overcome (Anderloni et al., 2012). Stemming from the idea of financial strain, defined by Conger et al. (1990) as "the judgment that resources are inadequate to meet family needs," subjective financial vulnerability is rooted in worries and stress that one's resources are not sufficiently adequate to respond effectively to a potential financial setback. In addition, Archuleta et al. (2013) developed the Financial Anxiety Scale to better understand the degree of anxiety a person can feel regarding their financial circumstance. We define subjective financial vulnerability as one's perception of the likelihood that a financial setback will occur in the future and one's ability to

potentially handle such a setback financially. Beyond objective financial vulnerability, subjective financial vulnerability influences an individual's mindset about their financial state and ability to deal with potential financial hardships.

The distinction between the subjective and objective components of important constructs is not new. Ng et al. (2005) looked at objective and subjective measures of career success, Maynard and Hakel (1997) examined the influence of objective versus subjective task complexity on task performance, Carlson et al. (2009) conducted a meta-analysis looking at the relationship between subjective and objective knowledge, and Hamilton et al. (2019) presented a framework examining subjective and objective factors related to financial constraints—to name but a few. While research has examined both the objective and subjective components of one's financial well-being (present state, see Bruggen et al., 2017, and Netemeyer et al., 2018 for reviews), improving objective financial vulnerability (future state) has been the primary focus thus far (e.g., Hoffmann & McNair, 2019).

Yet, a person's subjective assessment of their financial current state and financial future often influences their financial decisions. Acknowledging this, economics research institutes have argued for a better composite measure of the nation's financial health, including the gathering of more information on people's subjective financial state (Tescher & Silberman, 2021). Academics have also shown the imperative consequences of the subjective assessment of financial states. For instance, individuals' perceived financial stress negatively influences academic performance (Joo et al., 2008), and perceived financial vulnerability can increase pro-social actions, such as making donations (Motsenok & Ritov, 2021). When consumers are subjectively vulnerable, they often perceive higher degrees of financial scarcity, which can lead to a heightened focus on the short term rather than on the future, resulting in greater tunnel vision and an enhanced likelihood of making suboptimal financial decisions (Benartzi & Thaler, 1995; Cook & Sadeghein, 2018; Mullainathan & Shafir, 2013).

As we discuss both objective and subjective financial vulnerability, it is important to note that, while highly related, the two types may not always align, as is true with other financial variables. For instance, gaps often exist between objective and subjective levels of financial knowledge (Nejad & Javid, 2018), and individual difference variables such as aging and education can contribute to a lack of accurate awareness of one's objective financial state (Agarwal et al., 2009). In general, financial awareness and whether consumers are paying attention to their finances are important, as these factors can create a major gap between objective and subjective levels of financial vulnerability (O'Connor et al., 2019).

3 | THE ROLE OF MINDFULNESS IN COUNTERACTING FINANCIAL VULNERABILITY

Despite the commonly touted positive effects of mindfulness, agreeing on one specific operational definition of mindfulness has been a challenge for researchers owing to its origins in various worldviews and religions. The multiple definitions of mindfulness essentially boil down to the following two broad streams: non-judgmental awareness and openness to experience (see Hart et al., 2013 for a detailed comparison). While interest in discussions about how overall mindfulness can help people be more financially mindful has grown recently (Fox, 2022), it is important to acknowledge the different mindfulness pathways (i.e., non-judgmental awareness and openness to experience) and examine how these different pathways can play a role in

improving financial perceptions and intentions of individuals, depending on the extent of their objective and subjective financial vulnerability.

3.1 | Mindfulness: Non-judgmental awareness versus openness to experience

One stream of mindfulness research follows the mindfulness construct specified by Jon Kabat-Zinn, who views mindfulness from an Eastern Buddhist perspective. According to this view, mindfulness refers to being present, in a non-judgmental manner, to stimuli that are both external and internal to us concerning our thoughts, emotions, and bodily sensations (Williams & Kabat-Zinn, 2011). Kabat-Zinn's conceptualization tends to measure attention to and awareness of present-moment experience, including factors like experiencing emotions one might not be conscious of until later, walking quickly without knowing where one is going, and difficulty in staying focused on what is happening in the present moment (Brown and Ryan 2003). We refer to this pathway of mindfulness as “non-judgmental awareness.”

The other stream of mindfulness research follows the mindfulness construct introduced by Ellen Langer, who views mindfulness from the viewpoint of a Western cognitive information-processing framework, defining mindfulness as a heightened state of engagement, encompassing the notions of novelty-seeking, creativity, and cognitive flexibility (Langer, 1989). Langer's conceptualization tends to measure active interaction and engagement with one's environment, including being open to new ways of doing things, figuring out how things work, and being creative in finding solutions. We refer to this pathway of mindfulness as “openness to experience” (Bodner & Langer, 2001).

While the two mindfulness streams share the importance of being fully present in the current moment to counteract the automatic or reactive autopilot tendencies of the mind, exactly how such intentional, present focus is achieved differs: Kabat-Zinn focuses on non-judgmental awareness. In contrast, Langer focuses on openness to experience. Below, we detail the benefit of emphasizing these two mindfulness pathways and develop a conceptual framework to suggest mindfulness-based behavioral interventions aimed at counteracting subjective and objective financial vulnerability.

3.2 | Mindfulness and subjective versus objective financial vulnerability

We propose that the non-judgmental awareness mindfulness practices will benefit those who feel more financially vulnerable. Individuals experiencing high levels of subjective financial vulnerability—owing to their high state of objective financial vulnerability—need tools to help alleviate the emotional stress that invariably originates from their perceived current financial state. Those experiencing higher subjective financial vulnerability, despite their low levels of objective financial vulnerability, need tools to help them mindfully reassess their current financial state and realign their subjective perceptions of their financial vulnerability in order to match their objective state of financial vulnerability. Having a state of non-judgmental mindfulness has been shown to enhance an individual's ability to manage stress (Killingsworth & Gilbert, 2010), and their capacity to regulate emotion (Holzel et al., 2011), along with their physical and psychological health (Grossman et al., 2004). Non-judgmental mindfulness frees



individuals from negative habitual thoughts or worries about the future or past (Kabat-Zinn, 1994) and allows them to step back and be more impartial in their judgment (Shapiro et al., 2006). Importantly, non-judgmental mindfulness facilitates the growth mindset (Don, 2020), better preparing individuals' minds to handle potential setbacks more effectively (Li & Bates, 2019).

We propose that openness to experiencing mindfulness practices will be beneficial for individuals who feel a sense of acceptance of their financial situation, as it would encourage openness to take action to improve their financial state. Specifically, individuals who are objectively highly financially vulnerable, and may find it difficult to navigate a financial setback, will need to find ways to motivate themselves and utilize appropriate financial tools to get themselves out of their rut. To do so, being flexible and creative in devising ways to improve their objective financial state is crucial, and openness to experience would allow them to do just that (Bodner & Langer, 2001; Langer, 1989). While little research has empirically tested the effects of individuals' openness to experience mindfulness practices, we can gain some insights from research on the consequences of being open to new experiences, which shows that openness to experience personality trait is related to creative behavior (George & Zhou, 2001).

3.3 | Customizing the two mindfulness practices and financial decisions

Above, we have presented circumstances when one pathway of mindfulness may work better than the other, depending on one's objective and subjective financial vulnerability. In other words, when an individual feels financially vulnerable (either because they are indeed quite financially vulnerable or are experiencing the stress and anxiety associated with financial vulnerability), non-judgmental awareness mindfulness practices can effectively mitigate the subjective financial vulnerability. On the other hand, when an individual is not feeling financially vulnerable (either because they are not financially vulnerable, or because they aren't experiencing the stress and anxiety associated with financial vulnerability, and have a greater feeling of calmness and acceptance surrounding their financial state), openness to experience mindfulness practices can be effective in mitigating objective financial vulnerability.

With that said, in some instances, individuals could benefit the most when the two mindfulness types are practiced sequentially. Such sequential intervention practices would be beneficial for those who need a certain groundwork via one type of mindfulness practice to benefit from the other type of mindfulness practice.

For instance, individuals who have an objectively high-financial vulnerability, and accurately perceive themselves as highly financially vulnerable (like Valentine), would first need to overcome psychological stress and anxiety by practicing non-judgmental awareness before attempting to behaviorally engage in activities aimed at mitigating objective financial vulnerability via openness to experience practices. Such a two-step process may be particularly beneficial because people like Valentine may first need to understand and accept their financially vulnerable state (with the help of non-judgmental awareness to reduce the mental scarcity-induced tunnel), which will set a base foundation to afterward benefit from openness to experience mindfulness practices.

Similarly, a two-step process will likely be useful for those who are objectively vulnerable financially yet do not accurately perceive their financial vulnerability (like Tommie), but for different reasons. In other words, non-judgmental awareness mindfulness practices will help Tommie to reassess his current objective financial situation and correct his misaligned

perception of financial vulnerability. Once non-judgmental awareness practice helps Tommie to correctly realize his financially vulnerable state, openness to experience mindfulness practices will allow him to engage in activities that will mitigate his objective financial vulnerability.

There could be other individuals who would benefit from practicing openness to experience mindfulness practices before practicing non-judgmental awareness. For example, Casey, who has objectively higher income but subjectively feels financially vulnerable, experiences an excessive amount of financial stress stemming from potential “what if” scenarios and unexpected financial setbacks. Thus, practicing openness to experience mindfulness could help Casey view her current financial state with an open mind and find creative ways to prepare herself if unexpected emergencies arose in the future. Thus, practicing openness to experience mindfulness could be a primary intervention that could be accompanied by non-judgmental awareness mindfulness afterward.

For individuals who have low subjective as well as low-objective financial vulnerabilities, such as Charlie, simultaneously practicing non-judgmental awareness mindfulness and openness to experience mindfulness could benefit him to maintain his ideal state.

Applying the concepts discussed above, we introduce a conceptual diagram that describes each type of individual according to where they are on the objective/subjective financial vulnerability continuum (Figure 1).

While assessing the potential benefits of a two-step process would require a longitudinal study, we conducted an initial pilot study to better understand (1) the potential for manipulating the two distinct types of mindfulness practices (openness to experience and non-judgmental awareness), and (2) the impact of mindfulness on both subjective financial vulnerability and behavioral intentions to mitigate the objective financial vulnerability.

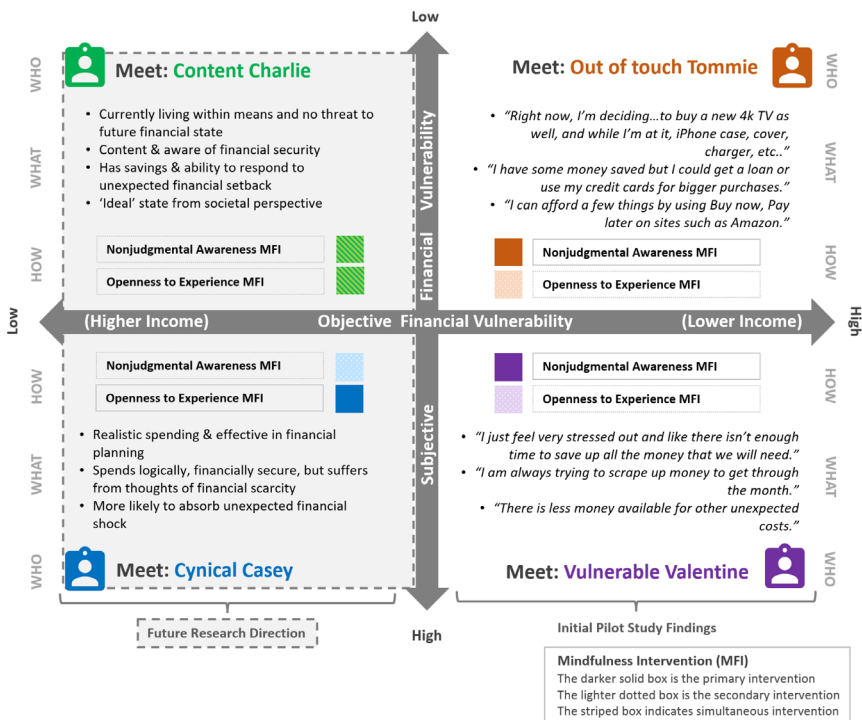


FIGURE 1 How do mindfulness practices mitigate subjective versus. objective financial vulnerability?

4 | EMPIRICAL PILOT STUDY

Despite the growing attention to mindfulness, there has been scarce evidence supporting the direct relationship between mindfulness and individuals' financial attitudes and behavior (Pereira & Coelho, 2019). We empirically manipulated mindfulness practices (non-judgmental awareness and openness to experience) to assess whether mindfulness interventions could alter consumers' financial perceptions and behavioral intentions. To the best of our knowledge, no research has separately manipulated and compared these two types of mindfulness. First, we conducted a pretest to assess the feasibility of manipulating the two pathways of mindfulness. Next, we compared these pathways of mindfulness in a pilot study focused on lower-income individuals, as they are likely to be the most objectively financially vulnerable.

4.1 | Pretest

4.1.1 | Method

We recruited 331 Americans ($M_{\text{age}} = 37.31$; age range = 18–66 years; 31.1% male) through Prolific in exchange for monetary compensation (\$1.15) and randomly assigned them to one of the four conditions (mindful non-judgmental awareness, mindful openness to experience, or the two control conditions). Participants in the two mindfulness manipulation conditions were first presented information on either non-judgmental awareness mindfulness or openness to experience mindfulness. Then, participants briefly wrote about how they could practice the mindfulness that they had just been introduced to (see Web Appendix A for the entire manipulation). In contrast, the participants in the two control conditions either wrote about how they could spend their time at a grocery store or did not perform any writing task. The goal of the pretest was to determine whether the two mindfulness manipulations would have an impact (over unrelated control conditions) on individuals' financial attitudes and behavioral intentions. Next, we asked the participants about their financial attitudes and intentions, with the core intention measure being their likelihood to attend a free financial workshop aimed at helping them understand and improve their financial situation (1 = not likely to attend; 7 = extremely likely to attend).

4.1.2 | Results

Eleven participants failed the attention check,¹ leaving 320 participants ($M_{\text{age}} = 37.54$, age-range = 18–66 years, 32.2% male) for analysis. To verify that the participants had engaged in the assigned mindfulness practice, we created word clouds using NVivo 12 software.² Word clouds highlight the most frequently mentioned words related to the non-judgmental awareness condition (e.g., awareness, judgmental) and openness to experience condition (e.g., try, new, open) (see results in Web Appendix B). Next, a coder blind to the research question followed the process of open coding to identify the themes emerging out of the responses. These themes captured the essence of each participant's response to the question (see results in Web Appendix C). For participants in the non-judgmental awareness mindfulness condition, themes like “being in the present” appeared most frequently (sample response: *First, do not let anything that's happened up until this point cloud your mind. Same with the future, all you really have is the present moment so when you come to that realization you feel more present*), followed by

“passing thought” (sample response: *I could have an angry or sad thought and just let it pass without feeling the need to do something in response*). In contrast, for those in the openness to experience mindfulness condition, evident themes included “change of attitude” which appeared most frequently (sample response: *I could try and keep an open mind about new things. I could try and imagine how much I could learn from the experience.*), followed by “exposure” (sample response: *I can try to practice openness to new experiences is to first seek out new experiences. In this process, I hope to challenge myself with new activities and allow my imagination flow into them.*). These findings support that the participants had indeed engaged in the assigned mindfulness practice during the writing task.

We found initial evidence suggesting that mindfulness can influence financial intentions. Specifically, participants in the non-judgmental awareness mindfulness condition ($M = 4.17$) had greater intentions to attend a financial workshops than those in the grocery control condition ($M = 3.39$; $t[316] = 2.45$, $p = 0.015$) and no-writing control condition ($M = 3.49$; $t[316] = 2.04$, $p = 0.042$). Similarly, participants in the openness to experience mindfulness condition ($M = 4.05$) had greater intention to attend financial workshops than those in the grocery ($t[316] = 2.10$, $p = 0.037$) and no-writing ($t[316] = 1.70$, $p = 0.091$) control conditions. This result indicates that, overall, mindfulness enhances intentions to engage in practical actions that could help them to understand and improve their financial situation, which could ultimately mitigate financial vulnerability.

This pretest supports the feasibility of manipulating the two types of mindfulness and shows that even a one-time manipulation of mindfulness can be effective in altering consumers' intention to improve their financial situation. This pretest looked at individuals across all income levels and all levels of objective and subjective financial vulnerability. In the pilot study, we wanted to use the pretested manipulations of mindfulness (non-judgmental awareness and openness to experience) to specifically examine individuals who are objectively financially vulnerable (lower than median U.S.A family income), and to assess whether these two pathways of mindfulness can have varying implications for financial attitudes and intentions. Additionally, we wanted to determine whether we could change perceptions surrounding financial vulnerability, making highly vulnerable, lower-income individuals feel less or more financially vulnerable, and whether this would have implications for financial attitudes and intentions.

4.2 | Pilot study

In the pilot study, we investigate individuals who are most likely to be experiencing objectively high levels of financial vulnerability by only recruiting participants who earn less than the median U.S.A household income (<50,000 USD). While all of the participants are likely to be objectively financially vulnerable given their lower income, we also wanted to assess the feasibility of manipulating subjective vulnerability to examine whether even those with lower income can perceive their financial situation as better or worse than it really is. This study used a 2 (mindfulness: non-judgmental awareness vs. openness to experience) x 2 (subjective financial vulnerability: high vs. low) between-subject design.

4.2.1 | Method

We recruited 301 American participants (32.2% male; $M_{\text{age}} = 36.44$; age range = 18–66 years) through Prolific in exchange for monetary compensation (\$1.10). While objectively, all

participants were lower income and thus higher on the financial vulnerability continuum, they were randomly assigned a condition that made them feel more financially vulnerable or one that made them feel less financially vulnerable.

Specifically, participants in the (high/low) subjective financial vulnerability conditions took time to reflect on their state of financial vulnerability. They saw the following prompt: “Individuals vary in their current financial situation. For any individual, there are times when your financial situation is (not good/really good). (Even if currently you feel financially comfortable, there may be unexpected financial setbacks that you would need to deal with/you feel financially comfortable, and while there may be unexpected financial setbacks that you would need to deal with, you can tackle them). Please take a few moments to think about, and in the space below, reflect on why your financial situation, whether current or potential, (isn't/is) great. For example, you could reflect on the things that you (are not/are) able to afford or similar other specific (negative/positive) aspects of your financial situation.” Then, participants were given several minutes to respond to the prompt for high or low subjective financial vulnerability, depending on their randomly assigned condition.

Next, participants were randomly assigned to either non-judgmental awareness or openness to experience conditions. As in the pretest, participants were given information about what the assigned mindfulness pathway encompasses, and they wrote how they could practice this type of mindfulness. In addition to the pretested manipulation, participants were given a minute to close their eyes and reflect on what they wrote while taking 10 slow breaths. After every second or third breath, they were asked to type a couple of words related to how they felt as they reflected on what non-judgmental awareness or openness to experiences means to them (see Web Appendix D).

Next, we measured participants' current financial awareness, current financial acceptance, future financial confidence, and future financial intentions. All of these items were measured on a scale of 1 (strongly disagree) to 9 (strongly agree), with higher numbers indicating greater agreement (see Web Appendix E for the full list of measures). Specifically, current financial awareness was measured, with two items looking at participants' perceived understanding of their own finances—of what they can and cannot afford and whether they feel they have a good grasp of their financial expenses (current and potential future). Current financial acceptance utilized two measures to assess acceptance and calmness. Future financial confidence was measured with five items related to confidence in their ability to deal with an unexpected financial setback, the ability to handle potential financial emergencies, and worry about having things they want in life in the future. Lastly, future financial intention utilized five items to measure participants' openness to exploring new ways to save, including plans to enhance knowledge and intention to take action to save more. Finally, participants answered several demographic questions.

4.2.2 | Results

To assess reliability, we measured the Cronbach's alpha coefficient for each of our four key scales: current awareness scale ($\alpha = 0.79$), current acceptance scale ($\alpha = 0.79$), future financial confidence scale ($\alpha = 0.86$), future financial intention scale ($\alpha = 0.82$).

Current financial awareness

A one-way ANOVA revealed a main effect of mindfulness on current financial awareness ($F [1, 297] = 12.03, p < 0.001$). Among participants in the subjectively low-financial vulnerability condition, those who completed the non-judgmental awareness mindfulness practice ($M = 7.57$)

felt significantly more aware of their financial standing compared to those who completed the openness to experience mindfulness practice ($M = 6.99, p = 0.03$). Similarly, among the participants in the subjectively high-financial vulnerability condition, those who completed the non-judgmental awareness practice ($M = 7.65$) felt significantly more aware of their financial standing than those who completed the openness to experience practice ($M = 6.98, p = 0.006$). The interaction of mindfulness practice and subjective financial vulnerability was not significant ($p = 0.80$), and the main effect of financial vulnerability was not significant ($p = 0.85$).

Current financial acceptance

A one-way ANOVA revealed a main effect of mindfulness on current financial acceptance ($F [1, 297] = 4.72, p = 0.03$). Among those in the subjectively low financial vulnerability condition, participants who completed the non-judgmental awareness mindfulness practice ($M = 5.81$) felt greater acceptance and calmness surrounding their financial standing than those who completed the openness to experience mindfulness practice ($M = 4.90; p = 0.01$). Among those in the high subjective financial vulnerability condition, participants who completed the non-judgmental awareness mindfulness practice ($M = 4.94$) felt a similar level of acceptance of their financial standing as those who completed the openness to experience practice ($M = 4.76; p = 0.60$). In addition, we find a significant main effect of financial vulnerability, such that participants who wrote about feelings of low-financial vulnerability ($M = 5.37$) were more accepting and calmer regarding their current financial state than those who wrote about feelings of high-financial vulnerability ($M = 4.84, F [1, 297] = 4.03, p = 0.05$). The interaction between mindfulness practice and subjective financial vulnerability on current financial acceptance was not significant ($p = 0.15$).

Future financial confidence

An ANOVA testing the 2 (mindfulness: non-judgmental awareness vs. openness to experience) \times 2 (subjective financial vulnerability: high vs. low) between-subjects design revealed a significant interaction between mindfulness and subjective financial vulnerability on future financial confidence ($F [1, 297] = 10.26, p = 0.002$). When the subjective financial vulnerability was low, non-judgmental awareness mindfulness enhanced future financial confidence ($M = 5.47$) more than openness to experience mindfulness ($M = 4.20; p < 0.001$). When the subjective financial vulnerability was high, there was no difference between non-judgmental awareness mindfulness ($M = 4.52$) and openness to experience mindfulness ($M = 4.37, p = 0.60$). Overall, we see a significant main effect of mindfulness ($F [1, 297] = 6.32, p = 0.01$) and a marginally significant main effect of subjective financial vulnerability ($p = 0.08$).

Future financial intention

A one-way ANOVA revealed a significant main effect of mindfulness on future financial intentions ($F [1, 297] = 4.90, p = 0.03$). For those in the subjectively low financial vulnerability condition, participants who completed the non-judgmental awareness practice ($M = 7.25$) reported only directionally greater, albeit nonsignificant, intentions to engage in financially beneficial behaviors compared to those who completed the openness to experience practice ($M = 6.90, p = 0.16$). Similarly, among those in the subjectively high-financial vulnerability condition, participants who completed the non-judgmental awareness mindfulness practice ($M = 7.34$) felt marginally greater acceptance of their financial standing than those who completed the openness to experience mindfulness practice ($M = 6.99, p = 0.08$). Neither the interaction of mindfulness practice and subjective financial vulnerability ($p = 0.98$) nor the main effect of subjective financial vulnerability was significant ($p = 0.58$).

4.2.3 | Discussion of pilot study

This pilot study examines lower-income individuals who are most likely to be objectively highly vulnerable and manipulates their perceptions of their financial vulnerability (low vs. high) and mindfulness practice (openness to experience vs. non-judgmental awareness). We find preliminary evidence that for these highly financially vulnerable individuals, non-judgmental awareness mindfulness (compared to openness to experience mindfulness) leads to greater acceptance and awareness of current financial state, as well as greater future financial confidence and mental preparedness to engage in activities that could mitigate their financial vulnerability. Hence, for lower-income, objectively financially vulnerable individuals, non-judgmental mindfulness practice should be more beneficial—at least as an initial step—than the openness to experience mindfulness practice.

The median household income in the United States of America was \$69,560 in 2019 and \$67,521 in 2020 (Shrider et al. 2021). As we pre-selected individuals in our Prolific sample whose household income was below \$50,000, in hindsight we suspect that effectively manipulating subjective financial vulnerability may have been challenging—our participants are individuals who typically realize that their current and future financial state is quite dire. Specifically, manipulating low-subjective financial vulnerability and making participants feel better about their financial state gave some leeway (i.e., more room for a shift and for them to feel less vulnerable) than manipulating high-subjective financial vulnerability, as perceptions of financial vulnerability were likely to have already hit the floor given this low-income population. Future research should consider individuals at varying levels of income. We suspect that it will be more difficult to shift perceptions of financial vulnerability in individuals with extremely high-income levels (who are less likely to be financially vulnerable); these individuals may feel really good about their financial state as is, and it would be hard to make them feel even better. However, future studies may observe greater shifts with manipulations of subjective financial vulnerability in those with median household incomes, especially considering the households' geographic region and cost of living in a given area.

When we look at both acceptance of financial state and the financial confidence to deal with unexpected setbacks in the future, we notice a trend such that those in the low-financial vulnerability condition are increasingly accepting, calm, and confident about the future. Enhancing their perceptions of financial vulnerability and making participants already highly objectively vulnerable perceive themselves even more financially vulnerable may have led them to further enter the tunnel mindset and not be open to any type of mindfulness practice.

5 | GENERAL DISCUSSION

5.1 | Summary and contributions

Better financial choices in the present can play an instrumental role in shielding people from unexpected setbacks as we move toward a future where significant uncertainty exists. While much work focuses on helping individuals make better financial choices in the present, an equally critical and often overlooked dimension is financial vulnerability, which refers to the likelihood of an unexpected financial shock or setback, and a person's ability to absorb this setback. While this is strongly related to making financial choices in the present, it also involves having a solid understanding of potential setbacks and the ability to accept and be calm about the current financial situation, to consider changes to circumstances to improve the financial state in general, and to be able to make changes and adapt if unexpected setbacks do occur.

Past research has recognized the impact of income, assets, and liabilities in financial decision-making and has begun to look at objective financial vulnerability, but it has largely ignored the influential impact of perceptions or subjective financial vulnerability. We argue that these two dimensions of future financial vulnerability (objective and subjective) are linked in such a way that focusing on only one of the two distorts our understanding of how to approach individuals who vary in these dimensions, similar to driving into a storm with only one eye open. Building upon the existing literature on mindfulness and financial decision-making, this research considers both objective and subjective financial vulnerability and proposes two pathways of mindfulness for improving one's ability to be more confident, capable, and (hopefully) actionable, if (or when) an unexpected financial shock occurs.

As we postulated earlier, we suggest that the two types of mindfulness interventions (openness to experience and non-judgmental awareness) may have different implications on attitudinal and behavioral outcomes. As we show in the pilot study, non-judgmental awareness is likely to enhance subjective financial vulnerability and enhance intentions to improve financial decisions for those who are financially vulnerable. On the other hand, openness to experience—to be explored in further research—should be more effective at enhancing objective financial well-being, by encouraging individuals who are less stressed and out of the scarcity-induced tunnel vision to engage in practical actions that can help mitigate their financial vulnerability. Openness to experience should be especially relevant for those who may have already accepted their current financial state. For objectively financially vulnerable individuals, it is possible that, first, a non-judgmental awareness mindfulness practice could help them feel more content and accepting of their current state and potential setbacks they may encounter, and second, an openness to experience mindfulness practice would help them be more accepting of new ways to improve their financial decisions to mitigate their financial vulnerability.

Overall, our paper contributes to the existing literature by (1) bringing together two different facets of mindfulness, each with different implications in mitigating subjective versus objective financial vulnerability, and (2) providing an empirical method to manipulate the two types of mindfulness via a pilot study to drive further research in this area. We propose that the two distinct facets of mindfulness (i.e., non-judgmental awareness vs. openness to experience) could benefit individuals in different states of financial vulnerability. Importantly, we suggest a two-step process of mindfulness as a possible intervention to help consumers mitigate their subjective and objective financial vulnerability.

With this work, we hope to ignite a discussion and further research into this domain. While managers and policymakers have been instilling programs to enhance objective financial vulnerability, they have largely ignored the importance of improving subjective financial vulnerability. However, using guidelines suggested in the current paper, managers, and policymakers could design and implement concrete mindfulness interventions that emphasize differing degrees of openness to experience and non-judgmental awareness to alleviate issues relevant to objective and subjective financial vulnerability.

6 | LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Building on prior work, this research aims to develop a theoretical framework for offering implications of the two distinct mindfulness practices in mitigating financial vulnerability. To provide

preliminary empirical evidence supporting some key implications of our proposed conceptual framework, we also conducted a pilot study with a group of lower-income individuals. Enhancing mindfulness tends to take time and regular practice, so mindfulness manipulations usually involve longitudinal studies (e.g., Keng et al., 2011; Shapiro et al., 2008). Mindfulness is a skill that can work like a muscle, which becomes strengthened with greater practice. In relative terms, acquiring openness to experience likely needs more time than non-judgmental awareness because non-judgmental awareness requires simple calming of one's mind, which can be achieved in just 3 min of practice (e.g., short body scan meditation, UCLA Mindful Awareness Research Center, 2022). However, openness to experience requires a greater change in mindset to promote behavioral change, which often requires a much longer duration of time than does a mere change of mindset. Thus, proper testing of the two-step model would require a longitudinal study that spans several weeks or months (e.g., 2 weeks of non-judgmental awareness mindfulness intervention followed by 4 weeks of openness to experience mindfulness intervention).

In addition, we suggest that, for individuals with a high level of financial vulnerability, non-judgmental awareness mindfulness would help get them out of their scarcity-induced mindset. While we provide initial evidence for greater feelings of calmness and acceptance after a judgmental awareness mindfulness practice, future research should delve deeper to understand the underlying process behind both non-judgmental awareness and openness to experience mindfulness practices.

To limit the scope of this research, we did not explore potential moderators and assumed higher objective financial vulnerability based on income. Yet, a fruitful avenue for future research would be to look at moderators—specifically, how individual-level traits relate to the four quadrants shown in Figure 1, and how each may moderate the relationship between the two mindfulness interventions and financial well-being outcomes. So while we look at income as a proxy for financial vulnerability, we note that individuals who are high income can also be financially vulnerable, living beyond their means. Age can also be an important moderator, as those who are older may be more receptive to non-judgmental awareness mindfulness practices, accepting where they are, whereas those who are younger may be more receptive to making changes and more open to new experiences. Prior research shows that poor/near-poor, and financially vulnerable individuals report similar levels of life satisfaction to those who continue to work full time, whereas retirees who are more financially stable and less financially vulnerable tend to report higher degrees of life satisfaction. In general, stages of life can have important implications (Carr et al., 2020).

In addition, whereas most prior work has focused on the positive aspects of mindfulness, only a few studies (e.g., Rosing & Baumann, 2008; Ruedy & Schweitzer, 2010; Tangney et al., 2017) have suggested the so-called “dark sides” of mindfulness. For example, the same benefits of mindfulness may be undesirable when over-applied (Britton, 2019). Also, mindfulness may result in thought suppression in people with limited access to their self-system, thus resulting in self-infiltration (i.e., false self-attribution of externally controlled goals or activities). Also, being aware of present experience and noticing one's thoughts could make individuals less compelled to ignore, explain away, or rationalize ideas that might be potentially threatening to the self, such as a conflict of interest or a potential bias (Ruedy & Schweitzer, 2010). Moreover, mindfulness can reduce generosity and heighten selfishness among those with independent self-construals (Poulin et al., 2021). Expanding the two distinct streams of mindfulness—both the positive and the negative—would provide a deeper insight into how mindfulness affects consumers' financial vulnerability, thereby enhancing their overall financial well-being.

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ENDNOTES

¹ In the questionnaire, we embedded an attention check (“If you are reading this statement, please select strongly agree option.”).

² A Word file was created assimilating all the responses, and this file was added to the NVivo 12 software to generate word clouds.

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APPENDIX A: Pretest mindfulness manipulations

1. Non-judgmental awareness mindfulness

What is non-judgmental awareness?

Mindfulness means paying attention in a particular way: in the **present moment** and **without judgment**.

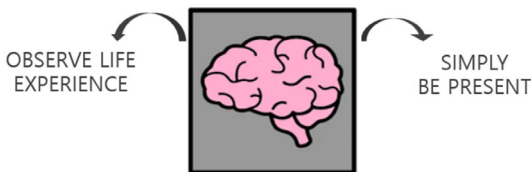
Non-judgment means **letting go of the automatic judgments** that arise in your mind with every experience you have.

When practicing non-judgment, **being a simple observer of the present moment** is important. There is no longer anything to be done about the present moment.

Setting down the judging mind, even for a short while, is a refreshing weight off of your shoulders. No grasping for more and no resisting of what is there.

When you stop trying to react to your experience, you can **rest in the mindful presence of the moment**.

NON-JUDGMENTAL AWARENESS MEANS YOU DON'T NEED
TO "DO" SOMETHING ABOUT EVERY LIFE EXPERIENCE



What does it look like to practice non-judgment? How can I get started?

Notice when judgments arise.

Witness whatever comes up in the body or mind.

Recognize the thoughts that are there without denouncing them or clinging to them.

Move forward with clarity, **staying present to the experience at hand**.

Now take a few minutes to reflect on practicing non-judgmental awareness.

How could you practice “non-judgmental awareness” in your daily life?

Please write at least one paragraph in response to this question.

2. Openness to experience mindfulness

What is Openness to Experience?

Mindfulness means paying attention in a particular way: **being open to new experiences and welcoming them** wholeheartedly.

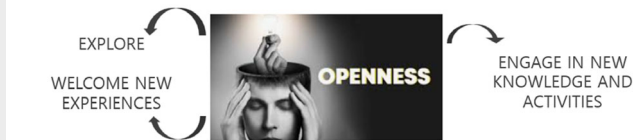
Openness to experience means **going beyond one's comfort zone**.

In practicing openness to experience, one can **seek out new, unconventional, and unfamiliar experiences**, travel to new destinations, and embrace different cultures and practices.

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OPENESS TO EXPERIENCE MEANS OPENING UP TO THE NEW POSIBILITIES
AND ENGAGING YOUR INTELLECT TO ENHANCE CREATIVITY



What does it look like to practice openness to experience? How can I get started?

Be creative: Creativity is about thinking out of the box. Unleash your imagination to allow yourself to be far more vibrant.

Accept the new: Be ready to accept new experiences and even if they are a bit risky.

Engage your intellect and cognitions: seek new knowledge and express interest in new activities.

Now take a few minutes to reflect on practicing openness to new experiences.

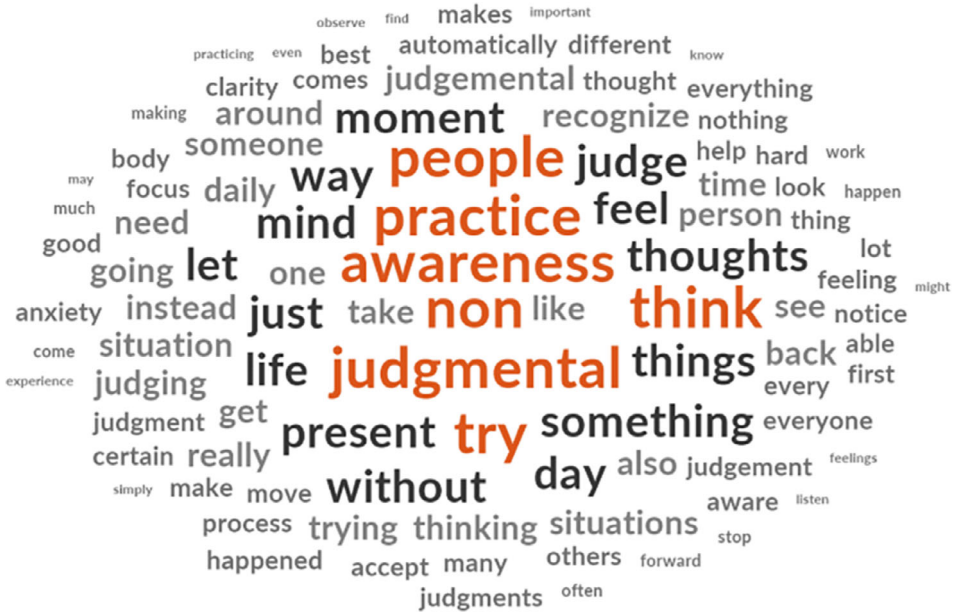
How could you practice “openness to new experiences” in your daily life?

Please write at least one paragraph in response to this question.



APPENDIX B: Pretest word clouds

Non-judgmental awareness mindfulness.

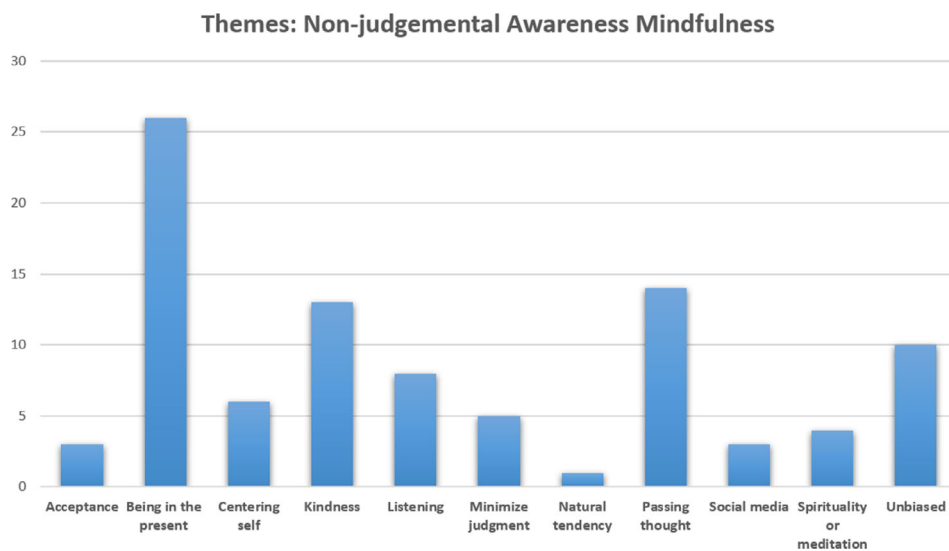


Openness to experience mindfulness.



APPENDIX C: Pretest emergent themes

1. Non-judgmental awareness mindfulness

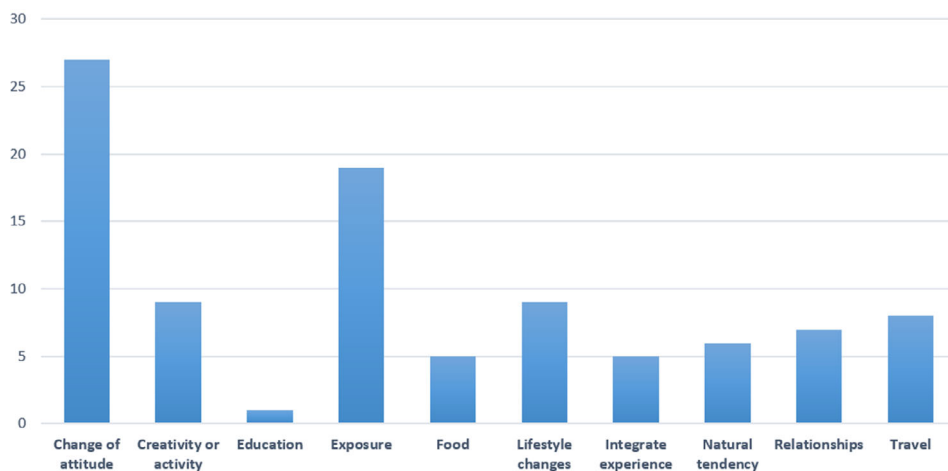


Theme	Excerpt (example)
Acceptance	I could accept feelings and situations as they are, without immediately assigning positive or negative characteristics to them.
Being in the present	First, do not let anything that's happened up until this point cloud your mind. Same with the future, all you really have is the present moment so when you come to that realization you feel more present. Sit quietly with yourself, let your thoughts flow. Do not engage with any particular thought just watch it pass. You'll start to realize how many of your thoughts aren't even really created by you, they are just reactions to your environment from a primal standpoint.
Centering self	I think I could practice non-judgmental awareness by ignoring automatic biases and judgments that come to mind automatically and letting things flow around me rather than making it a point to rate or judge each thing that enters my mind for attention. It might be hard but I think I can do it by centering myself and taking a moment to think about why I feel the need to judge everything and not worry about needing to do it for every little thing.
Kindness	If the situation arises, I could just take a step back and think before I speak or act. I could think to myself "how would I feel if the roles were reversed?". I personally have been trying to work on filtering my thoughts before they exit my mouth, as I tend to be a bit cynical and can sometimes be a bit off-putting. I believe it is extremely important to put the thoughts and feelings of others in the forefront of your mind, not always, but most of the time a bit of kindness can go a long way.
Listening	I think non-judgmental awareness is most useful in listening to other people in conversations. It is well known that people can have a tendency to already be forming an argument or statement of their own as soon as another person starts talking, instead of truly listening. This harms the conversation and ultimately, the relationship. Plus, it is a selfish tendency. By being present in a conversation, you can become a better listener and people will feel more valued.

Theme	Excerpt (example)
Minimize judgment	I could stop and ask myself if I am judging something or just observing it. And if I find that I am judging, I can take a slow deep breath and then be mindful to not judge it at all. I'm sure that people automatically judge without thinking too much about it. So, I would try to be more mindful as things happen throughout the day. Maybe I could set reminders on my phone, every hour or so, with a short phrase to help, such as, "remember, do not judge".
Natural tendency	The way I always have. People have often commented that I can observe or experience something really great or really bad and just minutes later it is like I never had the experience. It is not something I have consciously cultivated or strive for; it is just how I have been as long as I can remember.
Passing thoughts	I could have an angry or sad thought and just let it passing without feeling the need to do something in response.
Social media triggers	It's all too easy to riled up when reading people's Tweets and Facebook posts. Some are bound to express opinions that I personally detest. With non-judgmental awareness, I could simply recognize the trigger, stop reading the post, refuse to engage in argument, and move on to more congenial things.
Spirituality or meditation	I recite Gathas, read and study Thich Nhat Hahn and other Buddhist texts, practice meditation. I notice my feelings and judgments and recognize they are temporary manifestations that mean nothing in ultimate reality. I also focus on areas of the body that are feeling no discomfort and send my gratitude to them. I perform body scan meditations and various rituals.
Unbiased	This is an interesting concept. One way that I can begin practicing non-judgmental awareness is to sit and think for a while about various scenario. I'm sure spontaneous thoughts will arise and then I can challenge those thoughts if they carry a judgment along with them. So, in other words, I believe I can start this process by practicing.

2. Openness to experience mindfulness

Themes: Openness to Experience Mindfulness



Theme	Excerpt (example)
Change of attitude	I could try and keep an open mind about new things. I could try and imagine how much I could learn from the experience. I could grow and evolve into a more well-rounded person. I think that if I stay logical and imagine how the experience would allow me to be more mature.
Engaging in creativity or activity	I think creativity could be one great place to start. Doing more activities by choice that involve this freedom to think outside of the box, such as art and creation, could enhance openness. I also think trying new things, such as looking for opportunities to do new things around my city could help me be more socially and mentally open. Generally speaking, I think putting aside anxieties and the urge to stick to certainty and routine are the path to becoming more open.
Education	A way to practice openness to new experiences that I actually have been thinking quite a bit about is going back to school. This makes me extremely nervous because I fear that I may not do well but I am going to try my best and hopefully succeed at this. I have never attempted something like this and I am on my own and have nobody to rely on but myself. I am actively trying to open my mind up to this new experience so that I will actually do it and not just think about doing it.
Exposure	I think some ways I can try to practice openness to new experiences is to first seek out new experiences. I will try and reach out to my local community volunteering organizations and try to get to know the people there and learn the perspectives on a variety of issues. I will also try to learn some new skills and gain new experiences that way. I plan on taking some online courses, watch tutorials on YouTube, read guide books, etc. In this process, I hope to challenge myself with new activities and allow my imagination flow into them. I will also try to read new books on politics and ideas and through them challenge my perceptions of the world.
Food	I could practice openness in my life by trying different restaurants to eat at. I am very closed to new types of food and could broaden my palette by trying different types of cuisine and restaurants that I have never ate at before. I could start small at first by trying a different appetizer that I have never had or investigating a different type of beverage or dessert.
Lifestyle changes	To practice "openness to new experiences" in my daily life, I could start waking up early. I could maybe start running or going to the gym. I would stop saying no less and start saying yes more.
Integrate Experience	I can practice mindfulness in my daily life by understanding how others view and complete different experiences in their lives and attempt to do the same in my life. Instead of doing things the way I have always done things, I could create new ways to approach situations and problems. I can also be slow to judge new experiences knowing that things that are unfamiliar can take time to accept and like. I can also research and talk to people about hobbies they have to see how I might appreciate these new experiences.
Natural tendency	I am always open to new experiences, by learning, seeing, reading and doing.
Relationships	I could practice "openness" in all my relationships. Less talk more listen, be open to hearing new things and seeing the perspectives of others. Being transparent and modeling good behavior can make a positive difference in my daily life.
Travel	A good way to practice openness to new experiences would be to travel and fully immerse yourself in the local culture. This could mean going to a faraway country, but many people could also experience this in their own city. Going to a local community that you have never explored may offer an entirely different culture that you have never experienced.

APPENDIX D: Pilot test mindfulness manipulations

1. Non-judgmental awareness mindfulness

The next survey in today's session is about reflecting. Please carefully and thoughtfully read the information presented.

When practicing non-judgment, **being a simple observer of the present moment** is important. Setting down the judging mind, even for a short while, is a refreshing weight off of your shoulders. No grasping for more and no resisting what's there.

When you stop trying to react to your experience, you can **rest in the mindful presence of the moment**.

What is Non-Judgmental Awareness?

Mindfulness means paying attention in a particular way: in the **present moment** and **without judgment**.

Non-judgment means **letting go of the automatic judgments** that arise in your mind with every experience you have.

NON-JUDGMENTAL AWARENESS MEANS YOU DON'T NEED
TO "DO" SOMETHING ABOUT EVERY LIFE EXPERIENCE



What does it look like to practice non-judgment? How can I get started?

Notice when judgments arise.

Witness whatever comes up in the body or mind.

Recognize the thoughts that are there without denouncing them or clinging to them.

Move forward with clarity, **staying present to the experience at hand**.

Now take a few minutes to reflect on practicing non-judgmental awareness. It often takes at least 4 weeks to fully adjust your lifestyle, so thinking about the next 4 weeks: How could you practice non-judgmental awareness in your daily life? Think about concrete ways you intend to do so, starting right at this moment.

How will you practice "non-judgmental awareness" in your daily life?

Please write at least one paragraph in response to this question. On the next screen, you will be asked to really implement what you wrote about.

<<TEXTBOX>>

Take a moment to relax and reflect on practicing non-judgmental awareness.

Close your eyes, and think about what you just wrote.

Take about 10 slow breaths.

After every second or third breath, type a couple of words related to how you feel as you reflect on what non-judgmental awareness means to you.

Please take your time, at least 30 s to reflect on non-judgmental awareness.

<<TEXTBOX>>

2. Openness to experience mindfulness

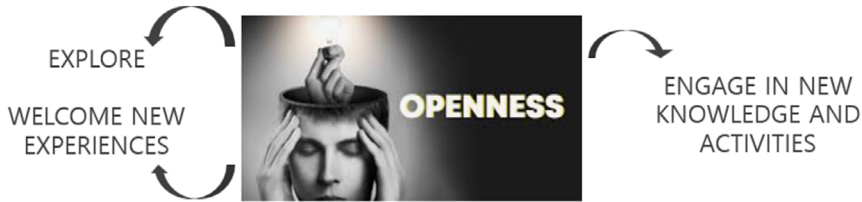
The next survey in today's session is about reflecting. Please carefully and thoughtfully read the information presented.

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OPENESS TO EXPERIENCE MEANS OPENING UP TO THE NEW POSIBILITIES
AND ENGAGING YOUR INTELLECT TO ENHANCE CREATIVITY



What is Openness to Experience?

Mindfulness means paying attention in a particular way: **being open to new experiences and welcoming them** wholeheartedly.

Openness to experience means **going beyond one's comfort zone**.

What does it look like to practice openness to experience? How can I get started?

Be creative: Creativity is about thinking out of the box. Unleash your imagination to allow yourself to be far more vibrant.

Accept the new: Be ready to accept new experiences and even if they are a bit risky.

Engage your intellect and cognitions: Seek new knowledge and express interest in new activities.

Now take a few minutes to reflect on practicing openness to new experiences. It often takes at least 4 weeks to fully adjust your lifestyle, so think about the next 4 weeks:

How will you practice "openness to new experiences" in your daily life? Think about concrete ways you intend to do so, starting right at this moment.

Please write at least one paragraph in response to this question. On the next screen, you will be asked to really implement what you wrote about.

<<TEXTBOX>>

Take a moment to relax and reflect on practicing openness to experience.

Close your eyes, and think about what you just wrote.

Take about 10 slow breaths.

After every second or third breath, type a couple of words related to how you feel as you reflect on what openness to experience means to you.

Please take your time, at least 30 seconds to reflect on openness to experience.

<<TEXTBOX>>

APPENDIX E: Pilot test measures

Current financial awareness (2-items): "I think I understand my current financial situation enough to know what I can and can't afford." "I feel like I have a pretty good grasp on what it takes to cover my expenses (and what these expenses could be), including expected and unexpected expenses."

Current financial acceptance (2-items): “I feel accepting of my current financial situation.” “I feel calm when I think about my financial situation—current and future.”

Future financial confidence (5-items): “I feel confident in my ability to deal with an unexpected financial setback should I face one. I think I can handle financial emergencies.” “If an unexpected financial emergency arose, I would likely have to rely on family or friends to help me financially (reverse coded).” “Because of my money situation, I feel like I will never have the things I want in life (reverse coded).” “I am concerned that the money I have or will save won't last (reverse coded).”

Future financial intention (5-items): “I feel that I should take steps to enhance my knowledge about my current financial situation.” “In the near future, I intend to proactively change my financial (spending/saving) behaviors to save more and be better able to handle potential financial setbacks.” “I intend to take advantage of additional opportunities to more confident in my current financial state.” “I feel open to new possible ways to save money.” “I want to do all that I can to make sure I am not financially vulnerable in the future.”