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EFFECTS OF WEB-BASED MINDFULNESS INTERVENTIONS ON EMPLOYEE WORK STRESS IN THE LIFE INSURANCE INDUSTRY: A NARRATIVE REVIEW

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ABSTRACT

The advent of the digital age in every walk of professional life, cushioned by privatization and globalization, has led to a significant change in working patterns in the service sector. Employees in the life insurance sector are facing an upswing in stress due to stringent norms set by the *Insurance Regulatory and Development Authority of India*. The strict deadline and targets, alongside technological challenges, are affecting their productivity, mental health, and well-being. Web-based mindfulness interventions are a platform to improve self-care, awareness, compassion, and well-being, and mitigate the chances of distress and burnout. This review aims to identify, critically evaluate, and encapsulate the literature on web-based mindfulness interventions on job stress in the life insurance sector employees. This study narratively reviews the potential effect of online mindfulness on improving the mental health and well-being of employees in the life insurance sector and assesses the extent to which such interventions can help mitigate stress. Future research needs to focus on specific characteristics of web-based mindfulness interventions, which can be specifically designed for life insurance employees based on levels of guidance, the types of interventions, and different treatment latitudes.

1. INTRODUCTION

The finance sector is undergoing significant changes due to new operational structures and emerging technologies. While these advancements enhance efficiency, they raise concerns about job displacement, skill gaps, and the pressure on employees to adapt to new systems. This has led to uncertainty and challenges for workers in traditional roles. The increased workload has become a common everyday experience for professionals in any area of knowledge, and life insurance employees are no exception. The insurance sector experiences a pressing responsibility to help its employees cope with the work stress arising due to the stringent norms by the Insurance Regulatory and Development Authority of India, strict deadlines, and targets alongside technological challenges (Çelebi, 2022). Due to the upcoming and novel realities of different emerging factors in the workplace, life insurance employees are experiencing a crisis affecting their psychological well-being. Occupational stress has led to elevated emotional difficulties amalgamated with feelings of anguish (Feicht et al., 2013). They face circumstances related to continuous changes in legislation, differences in procedures to be adopted, and compliance with tight deadlines, whose non-compliance leads to mental pressure. This drastically affects their job performance and psychological well-being (Dinesh, Shetty, Gil et al., 2022).

A good and ideal Life insurance agent follows the philosophy of mindful selling by targeting the right customer with the right insurance product. In this present aura of selling life insurance policies loaded with work pressure and an unstable mindset, it

has become significant to influence oneself to be in the present moment for mindful selling (Hilton et al., 2019). Life insurance agents aim to enhance their productivity by selling more products to the target customers and maintaining long-term relationships with them. Though they face many challenges in their professional journey, at the end of their deadline, they indulge in mis-selling their products as fulfilling the targets is a hard nut to crack (Shetty & Basri, 2018). Few patterns of profession lead to stress at work that can be mitigated with the help of workplace-based mindfulness interventions (Vonderlin et al., 2020).

One of the probable reasons for the growing popularity of mindfulness interventions at work is that they facilitate several physical and psychological benefits. For decades, psychologists and medical experts have incorporated mindfulness techniques to help people cope with a wide range of syndromes, including depression and anxiety, mainly emerging due to stress (Tsutsumi et al., 2017).

Recently, researchers have begun exploring the workplace benefits of mindfulness and have investigated that mindfulness could improve social relationships, job performance, psychological well-being, and resilience (Glomb et al., 2011). As a result, many organizations and corporations have started offering mindfulness programs to their workforce. Mindfulness is also generating a great deal of new research interest. The benefits of mindfulness interventions are potentially significant for life insurance employees with high stress levels or burden (Menardo et al., 2022). Although existing studies have focused on small study populations, research has envisaged that workplace mindfulness can mitigate psychological distress (Spijkerman et al., 2016).

Given mindfulness's well-thought-out benefits, the feasibility and likelihood of expanding and unfolding the reach of workplace-based mindfulness interventions are in their infancy and need to be explored. Methods to increase the availability of mindfulness-based approaches include low-intensity outlooks. This should focus on fewer practitioner resources and time conservation with a more cost-effective and beneficial approach .Self-help workbooks, audio/ visual guides, online programs, and smartphone apps for workplace mindfulness increase mindfulness interventions closed-fistedness, ease, and efficiency. The impact of mindfulness sessions by trainers is based on the Mindfulness-Based Stress Reduction program, but with the COVID era, online training took a front seat. However, another key advantage of these interventions is the requirement for frequent in-person sessions, which may not be conducive to the lifestyle or schedule of all the life insurance employees and agents, and they would rather prefer a training where the employee can attend online. Both categories of life insurance agents, i.e., part-time or full-time agents, may not be able to capture the benefits of onsite mindfulness training at work. Different barriers like frequent travels, flexible time schedules for client meetings, and administrative work keep the employees fully engaged, leaving no room for participation in onsite mindfulness programs.

Research on workplace mindfulness is somewhat limited, as most studies have been conducted within the context of a specific illness (e.g., cancer, bipolar

disorder), many have focused only on women, and they often have limited efficacy outside research settings (Richardson & Rothstein, 2008). Delivering a mindfulness intervention for life insurance employees, including agents, financial advisors, and trainers, would require them to have access to the program regardless of their professional responsibilities. Also, considering modes of delivery beyond the scope of typical in-person sessions would be of great value for this population to get themselves set with the philosophy of mindful selling.

Mindfulness-based interventions contribute to providing employees with competencies and skills and developing their strengths (Chin et al., 2018). Opting for online intervention programs offers a promising direction in preventing stress at work and intervention for mental health. Amid the rapidly growing interest in workplace mindfulness, there is a need to examine the effects of promising new technology on cultivating the well-being of life insurance employees through online mindfulness training (Querstret et al., 2018). In the subsequent years, mindfulness has increasingly gained popularity among various population groups, including organizational leaders, agents, employees, consultants, coaches, and psychologists.

Life insurance agents are subject to unique stressors compared to other professions, even within high-stress industries like finance or sales. Their work involves the challenges inherent in sales, such as meeting targets and managing client relationships, and the emotional burden of dealing with clients' concerns about death and financial security. This profession requires agents to navigate complex emotional landscapes, often leading to burnout and emotional fatigue. Moreover, agents frequently work autonomously with little direct supervision, exacerbating feelings of isolation and stress. Therefore, the life insurance industry presents a distinct environment where mindfulness interventions could effectively mitigate stress and promote well-being.

Web-based interventions provide several advantages for life insurance agents, who often have irregular work hours and may not have the flexibility to attend in-person sessions. This format offers convenience and accessibility, making it easier for agents to engage in mindfulness practices at their own pace and during times that fit their schedules. The digital format also allows for continuous support and reminders, fostering consistent practice and making the intervention more sustainable over time. Additionally, web-based platforms can be tailored to address the specific needs of life insurance agents, such as managing high emotional stress, improving focus and decision-making under pressure, and developing resilience in the face of client rejection and market volatility.

While other high-stress professions, such as finance or sales, might also benefit from web-based mindfulness interventions, the life insurance industry presents unique characteristics that warrant specific attention. The nature of client interactions in life insurance—often involving sensitive discussions around death and long-term financial planning—makes the emotional demands particularly high. In contrast, while finance professionals may face high stress levels, their work is generally more

transactional and less emotionally taxing. Similarly, sales in other industries may not involve the same depth of personal connection and emotional investment as those in life insurance. Therefore, there is a need to adapt to interventions that could be tailored to address the specific emotional and psychological demands unique to life insurance agents.

Hence, the need arises to gauge the importance of online mindfulness at work, thus making it possible for the insurance sector to implement stress reduction strategies for their employees through the technological advancement of web-based mindfulness interventions. The current narrative review aims to synthesize the mechanisms of online mindfulness at the workplace. It also explores how researchers can apply these methods to enhance employees' health and help manage (prevent and reduce) work-related stress from the perspective of life insurance employees. We aim to identify, critically evaluate, and encapsulate the literature on web-based mindfulness interventions on job stress in the life insurance sector employees.

2. REVIEW OF LITERATURE

Stress is defined through a biological perspective with a physiological reaction focusing on certain stressful factors. Based on this approach, Selye defines stress as "a response to aggression due to an internal or external stressor factor to resist, adapt, and restore the individual's internal equilibrium" (Tsutsumi et al., 2017). Research has investigated that stress indicates a state of elevated activation of the autonomic nervous system with affective, cognitive, and behavioural manifestations (Menardo et al., 2022).

However, stress is a dynamic process where the individual and environment act on each other based on a sequential situation evaluation. An individual initially evaluates the situation, distinguishes what is positive and pleasant from what looks aggressive, and interprets this aggression as a threat, challenge, or loss (Siegrist & Rödel, 2006). Individuals also evaluate available resources that help them deal with a singular situation. Emotions prevailing in oneself try to influence these sequential steps, making the process more complex and dynamic across time.

Stress is a noteworthy health and safety issue that negatively impacts an individual's health. Work stress, a significant form of stress linked to the workplace environment, notably impacts employee performance and mental well-being. It arises from various factors, including workload, job demands, and organizational pressures, and can lead to reduced productivity, burnout, and psychological strain. Addressing work stress is crucial for enhancing employee health and optimizing organizational performance. Occupational stress has been defined as "a pressure or external charge that causes tension (or strain)" (Calnan et al., 2000). Work-related stress can be termed in the literature as 'job stress' or 'occupational stress' and generally refers to

situations faced in the workplace context that are related to overload, high demands, or expectations (Büssing & Glaser, 2000).

In general, stress is regarded as an individual reaction while placing it in the dynamics of work contexts (Cox et al., 2004). When an individual reacts emotionally, cognitively, and physiologically to aversive and noxious aspects of work environments, he is adjudged to be stressed. The state of job stress can be characterized by high levels of arousal and distress, and often by feelings of inability to cope at work. Research has been conducted on work stress, exploring the stressors and their main consequences prevailing in different organizations, but very few studies speak about the stress faced by employees in the life insurance sector. (Dinesh et al., 2022).

Work-related stress can be understood with a model initiated by the Health and Safety Executive (HSE), which covers six main areas of work design that could be the various causes of stress: (1) Demands which include heavy workload, rigid work patterns, and changing work environment; (2) Control relating to the degree of decision which employees have depending on the way they work(3) Support including motivation, encouragement, funding and resources provided (4) Relationships encompassing positive working to mitigate conflicts and unacceptable behavior (5) Job Role where workers find it difficult to understand their role within the organization (6) Change relating to how workers deal with the changes in the organization(Burman and Goswami, 2018). Occupational stress is widely recognized as a major contributor to poor morale, absenteeism, high staff turnover, and reduced productivity at work, especially in the service sector employees with high stress have significantly higher annualized medical expenditures (odds ratio = 1.528) compared with those with lower stress, and their medical expenses are estimated at 45–46% above those for lower stress employees (Wolever et al., 2012).

Every profession has its stressors that emerge from the content of work and the ergonomic design of the workplace. Employees in the Life insurance sector have to cope with task changes, customer interactions, distribution of work, litigation, technology, and work-life balance (Bun, 2002). A systematic review of work-related stress conducted by Burman and Goswami (Burman & Goswami, 2018) tries to highlight the following that "cognitive consequences (mental illness, lack of concentration and judgment capacity), behavioral consequences (sleeping disorders, poor eating habits, addictive consumption of drugs or alcohol, and neglecting responsibilities), emotional consequences (restless, irritation, impatience, anxiety, isolation, and depression), and physical consequences (high blood pressure, nausea, cardiovascular problems, back, and neck pain)" are the main types of occupational stressors. Similarly, the insurance sector always fears inevitable negative consequences like feeble commitment, less work engagement, unsound behaviors, poor performance, turnover, and absenteeism (Agyapong et al., 2016).

The pressure to meet quotas within reward management systems in the insurance and finance industries is often so intense that it can drive professionals to engage in unethical behavior. This high level of pressure, aimed at achieving specific targets

for financial gain or incentives, can lead individuals to prioritize meeting quotas over maintaining ethical standards. Such behavior is evident in a few cases where employees resorted to fraudulent practices to meet performance targets, highlighting the negative consequences of excessive pressure in reward management frameworks.

Being in the life insurance sector as a working professional is not an easy job. The high-pressure environment of sales jobs and the need to meet quotas make the work more tedious and stressful. Life Insurance employees are under fire to win the trust of new and existing customers, which directly affects the rewards and incentives they receive as a sign of their progress. As most of the employees are paid on a commission basis, there is a flow of uncertainty in their income. Building and maintaining long-term client relationships requires hard work, which adds to stress. It is, however, surprising that a large proportion of Life insurance employees experience psychological distress, anxiety, and mental fatigue when compared to other professions in the finance sector.

In a systematic review by Coetzer and Rothmann (2006), 1100 employees of an insurance company were targeted on performance pressure, evidencing the leading cause of work stress. The overall perception of work stress by employees within the insurance industry was associated with work demands, lack of job security, and the need to maintain a professional self. The unseen link between unmanaged stress and its negative impact on well-being is demonstrated in stress research that portrays severe consequences (Jung & Yoon, 2016). The daunting challenge of life insurance companies is to suggest stress reduction measures to their employees, which will foster the mitigation of stress and thereby improve employee productivity, thus making them mindful of their day-to-day work environment. Despite growing interest in business, government, and academia, mindfulness has received comparably little attention from the industrial-organizational context. Hence, a need arises to envisage how stress can be combated with the help of mindfulness interventions and how web-based mindfulness interventions contribute to improving employee well-being in the life insurance sector.

Mindfulness is "a process of openly attending, with awareness, to one's present moment experience". It is a dispositional trait or a state of mind that can be improved with a specific mindfulness training program (Kabat-Zinn, 2015). Mindfulness focuses on the awareness of an individual's present experience in terms of external and internal present-moment states like sounds, body sensations, thoughts, and emotional reactions, and adopting an open attitude toward one's experience (Bodhi, 2011).

Being an employee in the life insurance sector, maintaining social relationships, and having proper knowledge of their policies, they must manage several tasks and face many challenges (Erem Ceylan, 2022). Being mindful and selling the right policy adds to the productivity and progress of a life insurance agent in their career. Mindfulness interventions buffer the effects of workplace stressors, foster communication, and promote thriving in employees. The creativity of these employees' posts and mindfulness interventions promotes social connections in the workplace.

Many criticisms have been received on research on mindfulness at work due to a lack of consistency in definition (Chin et al., 2018). Another reason is the lack of rigor in the adaptation of standard intervention programs, whether Mindfulness-Based Stress Reduction or Mindfulness-Based Cognitive Therapy, suitable to the work environment, failing to guarantee the basic standards of such programs (Jamieson & Tuckey, 2017). It is a common phenomenon that employees often drop out of workplace mindfulness interventions. Also, it has been difficult to identify why respondents do not stay in intervention programs. And possible areas of improvement. However, currently, it is not known whether the effectiveness of training differs by organizational setting (whether a small, medium, and large organization) or the type of role (whether a blue-collar, administrative, and professional) or the nature of mindfulness intervention design (whether face to face or web-based intervention) (Vonderlin et al., 2020). Employees find it an uneasy task to attend mindfulness interventions during working hours (Rana et al., 2022). From the perspective of a life insurance employee who is constantly engaged in either attending continuous calls from the clients or meeting them in person, trying to balance between administrative work and fulfilling policy targets, thus making it difficult for them to invest time during working hours for mindfulness intervention participation. Work stress itself is a trauma, and attending mindfulness training at the workplace by keeping their work aside and leaving their important tasks incomplete adds to their trauma. A keen solution to keep up with the times in attending mindfulness sessions can be through web-based mindfulness programs. Hence, it has been discovered that online mental health interventions or mindfulness training can prevent stress and promote employee well-being (Kvillemo et al., 2016).

Being the newest frontier, organizations prefer implementing online mental health programs that can boost ease of access at low costs. There are obvious concerns for discovering both skilled and proximate mindfulness meditation experts who can deliver the training from any part of the globe, in the busy schedules of employees. Online psychological therapy in the form of mindfulness interventions has demonstrated comparable efficacy to face-to-face therapy, thus mitigating anxiety, stress, and depression (Copeland et al., 2017). Researchers have been evaluating online mindfulness-based interventions in the workplace for stress reduction, but it is still in its infancy. Studies recognized that online mindfulness intervention for stress management produces a statistically significant benefit in levels of perceived stress, mindfulness (Tkatch et al., 2017), and psychological well-being (Luangapichart et al., 2022).

With the growing popularity of web-based learning tools in medical education, an online mindfulness meditation program might be a viable strategy to address some of the limitations of traditional mindfulness programs for employees in the life insurance sector. With numerous advantages of online mindfulness to employees, one can cost-effectively reach a large audience. Life insurance employees, particularly the agents, are scattered over a wide area and find it challenging to attend training, as most

are part-time life insurance agents (Shetty & Basri, 2018). These agents, however, have a primary profession; few are homemakers or retired individuals. Attending online mindfulness training brings a positive approach to attending this training, even when they are traveling or in remote places.

The mindfulness training delivered online can be accessed from almost any setting, thus eliminating many difficulties, specifically the time zone (Tkatch et al., 2017). It is available around the clock, making it flexible for employees with enormous routine commitments. It permits the employees to work at their own pace, and such interventions can be delivered privately and anonymously, possibly reducing employee concerns about stigma accessing face-to-face wellness programs (Mak et al., 2015). Finally, an online program can be a stand-alone option for employees or an adjunct to face-to-face mindfulness or other wellness programs. Tremendous gaps have been identified where Internet-based intervention is a viable option to reduce stress in insurance sector employees. It provides a practical, low-cost, convenient, and anonymous alternative and makes health promotion more accessible to employees who would otherwise not seek help due to cost, inconvenience, stigma, and other barriers to help-seeking (Mak et al., 2015). Internet or web-based interventions have been proven to be effective in the prevention of stress, anxiety, and depression for employees. The effectiveness of Internet-based mental health promotion has been demonstrated in various populations of Western countries (Christensen, 2004), but very few studies have evaluated Internet-based mental health promotion programs in Asia among employees (Andersson & Cuijpers, 2009).

3. METHODOLOGY

3.1. Bibliometric Analysis

A bibliometric analysis was performed to gauge how effectively online mindfulness training would impact employees in general in all sectors, specifically on the antecedents, viz., work stress and mindfulness. A total of 208 articles were reviewed from Scopus, and data were extracted to have an overview through bibliometrics using the Biblioshiny tool, which could further support the evidence in the narrative review. Given the need for a database representing the global scientific publication system, we used SCOPUS as a data source because its disciplinary coverage has a 98% precision and a 93% recall rate (Van Eck & Waltman, 2019). The data retrieved from this analysis resulted in several diagrams and tables that provide a better understanding of the findings (Shetty et al., 2022). This analysis sets a platform to understand the effects of web-based mindfulness interventions on work stress and mindfulness in employees and the growth of research in this field regarding the most stressful profession of the finance sector, specifically in the life insurance industry. This can be well understood

with a conceptual structure map that performs Correspondence Analysis. The clustering of a bipartite network of terms extracted from a keyword, title, or abstract fields was fostered to synthesize the impact of online mindfulness in employees. The **Historiography Parameters,** clustering with coupling, and a graphical representation as a word cloud depicted the visual frequency of words. The articles used for this study were selected after detailed consideration of the required objective, keeping in mind the focus of the study. The following results are depicted from the bibliometric analysis performed.

3.2. Concept Map and the Search string

An extensive study of the collected articles set a platform for constructing a search string of keywords such as 'Mindfulness Interventions' AND' online' AND 'life insurance sector' AND 'work stress' as depicted in Table 1. Furthermore, the search operators depicted the keyword search syntax for the bibliometric analysis of N=208 articles. The current study is an overview and a platform to understand the importance and the different trends in online mindfulness for employees in the finance sector, with special reference to the life insurance industry, emerging from 2010 to 2023.

Table 1. Concept Map

Term 1	Term 2	Term 3	Term 4	Term 5
Mindfulness interventions	Online	Employees	Life Insurance Sector	Work Stress
OR	OR	OR	OR	OR
Mindfulness Programmes	Web-based	Workers	Life Insurance Industry	Job Stress
OR	Virtual	OR	OR	OR
Mindfulness Techniques		Agents	Finance Sector	Occupational Stress

Source: Self-Generated

3.3. Overview of the Bibliometric Analysis

3.3.1. Co-occurrence Network

Considering the prevailing pluralism of denotations connected to the study effects of workplace-based online mindfulness interventions on work stress and mindfulness in the employees of the life insurance sector, we tried to outline the existing connections

to the well-established knowledge categories that would contribute to this narrative review. The co-occurrence network is determined based on the number of occurrences, association, and co-occurrence of each keyword in published documents of web-based or online mindfulness in employees. The title words co-occurrence network analysis, association, and node of the 50 most frequently used words in published articles are featured in Figure 1.

The observation scouted from the above figure posits that the research domain was subdivided into four main clusters, the ones highlighted in red were devoted to a highly generalized notion, followed by the cluster in blue. For the sound purpose of innovative research, red and blue clusters are of particular interest and great significance. The well-known fact that is noticed is that notions of "online mindfulness", "meditation", "Stress", "work stress", "nurses", "teachers", "life insurance agents", "bankers", "internet intervention: "employees", are situated very close to one another, which contributes to their semantic similarity and proximity. The collective usage of the keyword gives us a strong foundation and a robust background for administering an in-depth analysis of the studies through this stream of novel research.

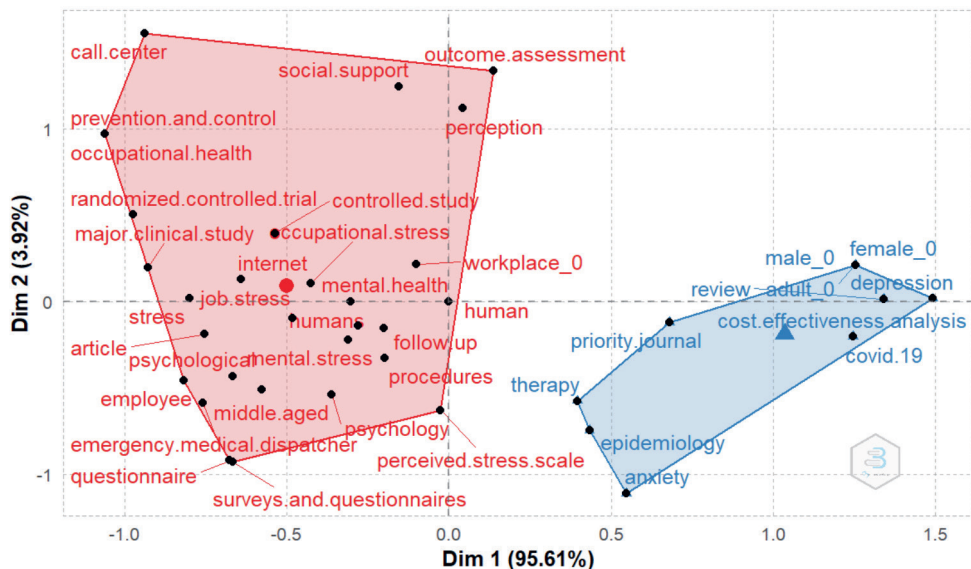**Figure 1.** Co-occurrence Network

Source: Generated through Biblioshiny

3.3.2. Conceptual Structure Map

The conceptual structure map visualizes the substantial structure of the words that often appeared in journals and articles on online mindfulness in employees through regional mapping. Words are placed according to Dim 1 and Dim 2, Dim being a diminutive particle. It is a scientific term in the science of bibliometrics, which creates relational words that do not differ much from each other, shown in Figure 2. The map in this analysis showcases the red and blue areas containing words related to one another (Shetty et al., 2022). The red area consisted of a wider variety and number of words, which showed the relation between many research articles based on the words used. The words used most often were occupational health, mental stress, and the internet, which are seen in the diminutive red particle. The words placed close to each other are closely related and mentioned in the articles. The words that are farther away are less associated with each other. By fragmenting it based on mapping the relationship between one word and another through area mapping, we can see that each word is placed according to the values of Dim 1, which is 95.6% and Dim 2, which is 3.92 % to produce a mapping between words whose values do not have much difference. The blue area shows the connectivity and cost-effectiveness. The words' closeness and nearness reflect the mapping and the relation towards each other, frequently used by the researchers in their study.

Figure 2. Conceptual Structure Map

Source: Generated through Biblioshiny tool

3.3.3. Word Cloud

A 'word cloud' is a visual representation of word frequency. Through the word cloud shown in Figure 3, one can envisage the words appearing frequently in the articles on which the analysis was done. The words most used were mental health, workplace, mindfulness, online, stress, and stress reduction. The more familiar words appear within the analysis, depicting the same intensity, the larger the word appears in the word cloud. Research is meager on online or web-based mindfulness interventions in most professions, like bankers, insurance agents, physicians, and others, but home office workers and or home workers are more highlighted. The need arises to focus on research on online mindfulness for stressful professions, one of them being in the Insurance sector.

Figure 3. Word Cloud

Source: Generated through Biblioshiny

3.3.4. Clustering by Coupling

The x-axis measures the cluster centrality (Callon's Centrality index) while the y-axis measures the cluster impact by Mean Normalized Local Citation Score (MNLCS). A document's Normalized Local Citation Score (NLCS) is calculated by dividing the actual count of local citing items by the expected citation rate for documents with the same year of publication. Figure 4 and Table 2 showcase the impact and centrality connected to mindfulness, online mindfulness, and stress.

Table 2. Cluster by coupling

Label	Group	Frequency	Centrality	Impact
mindfulness - conf 25.6% online - conf 25.7% stress - conf 27.3%	1	62	0.444288	1.183211
mindfulness - conf 24% online - conf 37.1% depression - conf 37.5%	2	54	0.582427	1.745451
mindfulness - conf 50.4% stress - conf 48.5% online - conf 37.1%	3	92	0.445686	1.25993

Source: Generated through Biblioshiny tool

Figure 4. Cluster by coupling
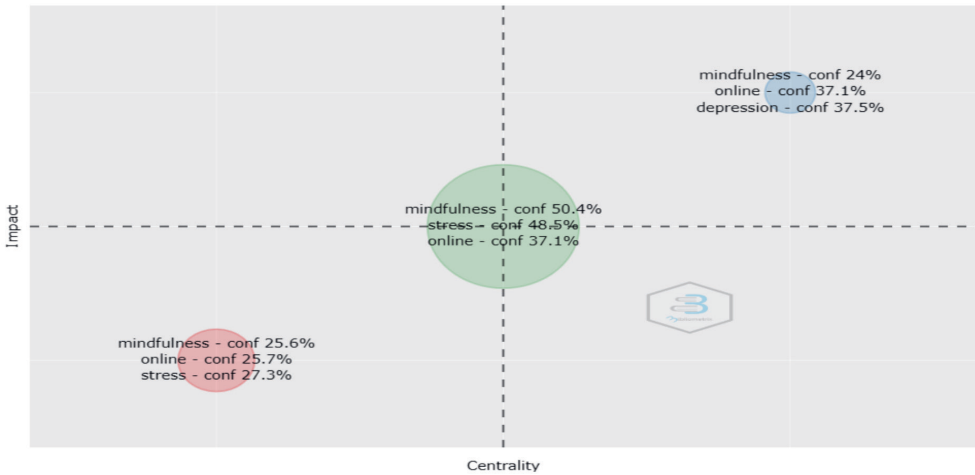
Source: Generated through Biblioshiny tool

This study is the first to gauge the comparison-dependent equivalencies between stress and online intervention on mindfulness, which tries to unpack the knowledge on web-based mindfulness segments and attempts to categorize a dataset into groups based on similarities.

3.3.5. Historiography Parameters

The historiography in Table 3 shows the Local Citation Score and the Global Citation Score from 2012 to 2022 on how online mindfulness in the workplace in different occupations is gaining momentum in research.

Table 3. Historiography Parameters

Paper/Author	Title	Year	LCS	GCS
(Krusche et al., 2012)	Mindfulness online: a preliminary evaluation of the feasibility of a web-based mindfulness course and the impact on stress	2012	19	82
(Mak et al., 2015)	Enhancing web-based mindfulness training for mental health promotion with the health action process approach: a randomized controlled trial	2015	6	50
(Matvienko-Sikar & Dockray, 2017)	Effects of a novel positive psychological intervention on stress and well-being: a pilot randomized controlled trial	2017	1	52
(Bailey et al., 2018)	Effect on the well-being of an online mindfulness intervention	2018	3	12
(Meischke et al., 2018)	Protocol: a multi-level intervention program to reduce stress in 9-1-1 telecommunicators	2018	1	7
(Russell et al., 2019)	A pilot randomized controlled trial of an online mindfulness-based program for people diagnosed with melanoma	2019	2	21
(Nadler et al., 2020)	Online mindfulness training increases well-being, trait emotional intelligence, and workplace competency ratings: a randomized waitlist-controlled trial	2020	4	18
(Khah et al., 2021)	The effect of online mindfulness program on physical pain, stress and depression in the covid-19: a randomized control trial	2021	0	1
(Klatt et al., 2021)	Synchronous mindfulness in motion online: strong results, strong attendance at a critical time for health care professionals (hips) in the covid era	2021	1	1
(Pheh et al., 2021)	Effectiveness of online mindfulness-based intervention (Imbi) on inattention, hyperactivity-impulsivity, and executive functioning in college emerging adults with attention-deficit/hyperactivity disorder: a study protocol	2021	0	1

(Franco, 2021)	Testing the impact of an online mindfulness program on prelicensure nursing students' stress and anxiety	2022	0	0
(Noei et al., 2022)	The effect of an online mindfulness self-compassion training program on psychological distress in caregivers	2022	0	0
(Pacini et al., 2022)	Connecting in place: older adults' experience of online mindfulness therapy during the covid-19 pandemic	2022	0	0
(Parkinson et al., 2022)	Online mindfulness with care partnerships experiencing anxiety and depression symptoms after stroke: mixed methods case study research	2022	0	0
(Pasqualucci et al., 2022)	Correction: the implementation of an online mindfulness-based program at a tertiary hospital in South America: a feasibility study protocol	2022	0	0
(Yeun & Kim, 2022)	Psychological effects of online-based mindfulness programs during the COVID-19 pandemic: a systematic review of randomized controlled trials	2022	1	9
(Young et al., 2022)	An online mindfulness-based intervention for certified nursing assistants in long-term care	2022	1	1

Source: Generated through Biblioshiny tool

Limited research has been conducted to explain the effects of workplace-based online mindfulness interventions on work stress and mindfulness in employees, and even less in the life insurance sector. We have examined the impact of workplace-based online mindfulness interventions that assess the performance and influence of countries, regions, scholars, and research organizations in specific fields of workplace mindfulness. A dearth of researchers have attempted to investigate the studies using bibliometric indicators; hence, an attempt has been made to perform a bibliometric analysis.

The results of the bibliometric analysis have paved the way for a narrative review where we re-ran a search with the exact keywords on three databases to delve into the emerging trends of web-based mindfulness programs exclusively for life insurance agents.

Narrative Review Synthesis

An extensive literature search was performed with a wide coverage of the period between 2010 and 2023 on Scopus, Web of Science, Embase, and PubMed, with a total of N= 675 documents. The screening process was performed by two independent authors with the help of Rayyan software, where the documents were narrowed down to N=216 after title and abstract screening, and 16 papers were removed because of duplicates. These research articles were excluded based on specific criteria, where a few papers did not fall in the domain of workplace mindfulness, a few were related to workplace mindfulness but did not focus on online or web-based mindfulness, and the rest were on yoga and other physical exercises. After full paper screening, we came across eight core papers, of which only one article was a review paper based on online mindfulness training in employees. However, only one study focused purely on Life insurance employees. We also tried to find the required literature through a hand search, which could be included in the narrative research.

4. RESULTS AND EXPERIMENTAL EVIDENCE

Web-based mindfulness interventions have inculcated behavior changes showing a positive impact on the well-being of employees. The comprehensive evidence base for traditional face-to-face stress-management interventions depicted a moderate overall effect in reducing adverse outcomes for mental health in employees (Bhui et al., 2012). The internet is a promising medium to disseminate effective mental health interventions. High attrition during web-based mindfulness interventions is also standard, undermining such programs' potential impact (Hosseinzadeh Asl & İl, 2021). However, evidence suggests that even shortened interventions (1-4 weeks) in online mindfulness programs are more effective than longer interventions, as employees are reluctant to spare time at work(Richardson & Rothstein, 2008).

Among most professions, working in the life insurance sector is challenging. The growing competition among life insurance companies and the alarming challenges faced by its employees ultimately lead to stress and affect their mental health(Tan et al., 2022). Employees in the life insurance sector face work-related stress influenced by organizational causes which are related to a group of factors such as problems at work where the insurance intermediaries work intensively, very often they are short of time to achieve the desired result, they do not manage to perform the planned jobs, the workplace is not convenient to work at, there are not enough working equipment, they feel the pressure on the managers' side to perform more jobs (Das & Khushwah, 2015). Fear of calling the clients, failure to perform the tasks in the right way, and the lack of skills to carry out specific tasks at work provoke them to dump the policies on clients, thus deteriorating their mental health and not being involved in mindfulness at work.

4.1. *Themes*

Interventions on mindfulness are alarmingly adapted to web-based platforms, providing opportunities for employees to participate actively compared to traditional face-to-face sessions (Mrazek et al., 2019). Researchers have found a weak negative and statistically significant correlation between stressors related to career possibilities and the relationship between concluded contracts (Spearman's r=−0.165, p=0.041<δ=0.05). The relationship between stress at work and the number of concluded contracts and calls made is weakly negative and statistically significant (Spearman's r = −0.171, p = 0.034< δ = 0.05) (Kvillemo et al., 2016). Hence, keeping in mind all the stress factors that life insurance employees face, organizations must suggest stress reduction programs to attain increased productivity, enhanced performance, improved mental health, and psychological well-being (Lomas et al., 2018). Work-life balance, overload, and job characteristics best predicted life insurance employees' psychological and mental health in one of the studies conducted by Coetzer and Rothmann (2006). After considering the extensive literature and in-depth acquisition of knowledge on online mindfulness at work, our study tried to generate three main themes, which showcased the adherence and engagement, the level of attrition, and the effectiveness of web-based mindfulness programmes for employees.

4.1.1. Adherence in online mindfulness for novice practitioners at the workplace

Adherence in online mindfulness interventions refers to how well an employee follows the prescribed interventions, which can affect the outcomes. Employees who adhere more to mindfulness programs have better outcomes. Mindfulness training may also help with other barriers to adherence, such as stress, cognitive impairment, and sleep. It has been empirically proved that adherence to web-based programs in previous reports has varied between 39.5% and 92% (Spijkerman et al., 2016) compared with adherence to face-to-face settings, where the rates ranged between 26% and 100% (Stanic et al., 2021). Promoting long-term adherence and engagement with online mindfulness interventions can maximize the potential outcomes (Beintner et al., 2019). Subgroup analyses of one study revealed that online MBIs resulted in higher effect sizes for stress when offered with guidance (Sommers-Spijkerman et al., 2021)

4.1.2. Effectiveness of Web-based Mindfulness Programs

Web-based mindfulness programs from 6 to 8 weeks are effective and significantly impact employee outcomes (Tan et al., 2022). In mindfulness programs, engagement involves regular meditation and daily awareness exercises, as well as intention,

motivation, and commitment to practice (Hülsheger et al., 2013). Such web-based mindfulness interventions influence an employee's mindfulness skills, processing of stressors, and subjective perception. The work intensification blended with extra work on account of staff reductions, acceleration of time pressure, difficulties in strategies adopted for effectiveness and optimization targets, caused by multitasking, and demands on adaptability due to permanent changes, influence the finance sector companies to suggest measures for relieving their employees from stress through such online mindfulness training programmes.

4.1.3. Attrition

A meta-analysis of 70 randomized controlled trials (RCTs), including a few studies on workplace mindfulness, found a weighted attrition rate of 24.7% for mindfulness apps, which is comparatively lower than on-site mindfulness. A Web-based intervention for anxiety, depression, and insomnia found an attrition rate of 24% and one more study found a weighted average attrition rate of 19.1% for MBIs. In recent years, Web-based interventions for the prevention and treatment of various psychological conditions in employees have proliferated (Richardson & Rothstein, 2008). Computer- and Web-based interventions offer several advantages that may overcome some of the limitations of face-to-face approaches, including anonymity, 24/7 availability, reduced costs in terms of traveling to courses for both participants and instructors, high scalability, and low access threshold.

The life insurance sector has a wide variety of office workers, brokers, and agents who have to travel for different official purposes (Chan et al., 2000). Enabling life insurance employees to be reached earlier than in classical face-to-face training, such interventions may have the potential to prevent the onset of more severe mental health problems (Umanodan et al., 2014). Internet-based interventions are effective in most professions to address depression, anxiety, and sleep disorders, which are all caused by occupational stress.

5. DISCUSSIONS

Mindfulness-based interventions are instrumental in mitigating work-related stress and improving employee well-being (Hülsheger et al., 2013). The high quantity of research on mindfulness at work has led to greater production of systematic reviews and meta-analyses (Hilton et al., 2019). A meta-analysis by Lomas (Lomas et al., 2018) featured a strong negative effect size for anxiety, and distress; small to medium positive effect sizes for empathy, compassion, mindfulness (state), and positive well-being in resilience, life satisfaction, and positive affect in employees which supports

our study which synthesizes that mindfulness interventions are a suggestive measure to mitigate stress.

A non-significant effect size was observed for depression and emotional regulation, with similar results across intervention duration and designs, types, program durations, and different occupations, like nurses, lawyers, bankers, police officers, teachers, and insurance employees, were shown where the effects were maintained five weeks post-intervention.

Another study depicts that face-to-face mindfulness interventions at the workplace could increase the duration of most repetitive and mundane tasks (Glomb et al., 2011). Bartlett opined that highly committed mindfulness training with onsite 10 h training plus 30 minutes of daily homework could elevate employees' stress, especially if the training was too long and was built for "at-risk" employees (Bartlett et al., 2019).

Existing Web-based stress-management training differs in various aspects, such as the intervention content, length, and guidance, which may influence their efficacy. The length and number of intervention sessions vary, ranging from short 2-week interventions (Glück & Maercker, 2011) to interventions that allow access over several months (Wolever et al., 2012). Some interventions foster the respondents to log in only if preferred, with no sessions or requirements for compulsory completion of the entire intervention (Billings et al., 2008), and in a few cases, a fixed weekly appointment (online virtual classroom) is feasible (Wolever et al., 2012). The study of Ruwaard et al. (2007) provides weekly feedback on exercises that worked on an instruction manual and reminded the respondents in case of non-completion, which helped them to track their engagement and adherence.

A study conducted by Feicht et al. (2013) examined the impact of web-based happiness training on psychological and physiological parameters, by self-report and objective means, through a randomized controlled trial with 147 employees in a local insurance company in Germany. Participants were divided into intervention (happiness training) and control groups (waiting list). The intervention consisted of a seven-week online training. Questionnaires were administered before, after, and four weeks after training. The web-based training conducted in this study could be a useful tool for stabilizing health/psychological well-being and work/life balance in the employees of life insurance employees as the results depicted that dimensions on Happiness ($P = 0.000$; $d = 0.93$), satisfaction ($P = 0.000$; $d = 1.17$), and quality of life ($P = 0.000$; $d = 1.06$) improved; perceived stress was reduced ($P = 0.003$; $d = 0.64$); mindfulness ($P = 0.006$; $d = 0.62$), flourishing ($P = 0.002$; $d = 0.63$), and recovery experience ($P = 0.030$; $d = 0.42$) also increased significantly.

Another study by Bossi et al. (2022) tested the effectiveness of an online mindfulness intervention in the financial sector for banking and insurance employees (n=132) in Italy. The respondents in the intervention group underwent an 8-week mindfulness online training program based on the Mindfulness-Based Stress Reduction (MBSR) protocol compared to a control (no-intervention) group.

Significant differences between the intervention and control groups over time in the measures of mindfulness, positive affect, insomnia, and depression. It was found that the frequency of practice and ease perceived in practicing were positively correlated to several indices of well-being and negatively correlated to several indices of stress. These results show the importance and effectiveness of online mindfulness training programs in coping with stress among finance sector employees.

A randomized control trial performed by Ebert et al. (2016) evaluated the efficacy of a self-guided internet-based stress management intervention (iSMI) for the employees of a life insurance company, comparing a 6-month wait-list control group (WLC) with full access for both groups to treatment with seven sessions and one booster session, including problem-solving and emotion regulation techniques. The primary outcome was perceived stress (PSS-10), and secondary outcomes included mental-related and work-related health outcomes. A significantly higher reduction in perceived stress from baseline to post-treatment at 7 weeks (d=0.96, 95% CI 0.70 to 1.21) and to the 6-month follow-up (d=0.65, 95% CI 0.40 to 0.89) was observed in the experimental group when compared to the wait list group. Significant differences with small to moderate effect sizes were also found for depression, anxiety, emotional exhaustion, sleeping problems, worrying, mental health-related quality of life, psychological detachment, emotion regulation skills, and presenteeism, in favor of the experimental group. Internet-based self-guided interventions could be an acceptable, practical, and potentially cost-effective approach to reduce the negative consequences associated with work-related stress, which would mitigate typical mental-related and work-related health symptoms of stressed employees in the insurance industry.

However, no studies or trials are conducted that focus on assessing the equivalence of face-to-face and Web-based stress-management interventions with a robust method and design. A trial was conducted that compared an online versus face-to-face version of stress management, indicating that there is no difference in reductions of stress or depression levels (Wolever et al., 2012). There is a possibility that traditional interventions yield slightly higher effect sizes (Richardson & Rothstein, 2008). One possible explanation is that face-to-face interventions are superior in reducing these outcomes. An alternative explanation is that Web-based interventions may reach affected individuals earlier, with lower baseline levels and thus less room for improvement. Although the effect sizes found here are smaller than those found in traditional face-to-face interventions, Web- and computer-based interventions can have greater reach. At this population level, even small-to-moderate effects can have a substantial influence.

Wolever et al. (2012) conducted a randomized control trial to test the equivalence of the online mindfulness group compared to the in-person mindfulness group. The online mindfulness group showed greater increases in coherence from the preintervention baseline to postintervention stress preparation. The mindfulness group had higher attrition levels in the in-person mindfulness group (27.3%) compared with the online mindfulness group (3.8%) due to time constraints and lack of interest.

This study tried to streamline the ease of physical access for mindfulness intervention by offering classes onsite or in a virtual classroom accessible via the employee's computer, which appeared to influence engagement positively. Also, the flexibility of in-person, online, and group interventions enables the provision of the interventions across workplace settings with variable schedules, technology bases, and geographical limitations. In particular, the online classes through the virtual space may allow the viability of similar interventions across many worksites with cost-effectiveness. By targeting highly stressed employees and focusing on the overall accessibility and practicality of the program, an intervention was developed that could be deployed easily within corporate settings (rather than being a one-time offering). More research is needed to clarify the effects of face-to-face and Web-based stress-management interventions in direct comparisons in employees, giving much attention to the life insurance sector. (Umanodan et al., 2014)

6. CONCLUSIONS

Future research should focus on specific characteristics of web-based mindfulness interventions that can be specifically designed for life insurance employees, such as different treatment latitudes, different levels of guidance, and different types of interventions. Future research should also test Web- and computer-based stress management interventions against the highest standard in this field (i.e., classical face-to-face stress management interventions) and should more frequently include more extended follow-up periods (eg, up to 6 months), considering the cost-effectiveness of such interventions (Ebert et al., 2016).

Recently, studies on computer-based stress management have taken up a front seat. The effects of Web-based stress-management interventions on employees are quite unclear. Considering the increasing demand for scalable stress-management training and keeping in mind its effectiveness, there is an urge to synthesize the results of existing studies and also to integrate the effects of Web-based stress-management interventions in employees, specifically in a stressful work environment of the life insurance sector.

Online mindfulness training for life insurance agents may be helpful in occupational health settings and among employees with high levels of work-related stress. Such interventions could be a tool with some additional health-promoting or medical relevance. Research demonstrates the highly positive effects of mindfulness practice on well-being and stress. For this reason, mindfulness programs should be spread and promoted online, especially for professionals like life insurance agents who have to face many challenges and cannot attend onsite sessions due to their hectic workload and travel, which can be helpful in several aspects of psychophysical well-being.

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Ms. Tantri Keerthi contributed to the introduction, design, and analysis; Dr. Ankitha Shetty contributed to the interpretation; and Dr. Rajashree Kini contributed to the literature and data screening.

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