

Annual Review of Organizational Psychology and Organizational Behavior

Mental Health in the Workplace

E. Kevin Kelloway,¹ Jennifer K. Dimoff,² and Stephanie Gilbert³

¹Department of Psychology, Saint Mary's University, Halifax, Nova Scotia, Canada; email: kevin.kelloway@smu.ca

²Telfer School of Management, University of Ottawa, Ottawa, Ontario, Canada

³Shannon School of Business, Cape Breton University, Sydney, Nova Scotia, Canada



- www.annualreviews.org
- Download figures
- Navigate cited references
- Keyword search
- Explore related articles
- Share via email or social media

Annu. Rev. Organ. Psychol. Organ. Behav. 2023. 10:363–87

First published as a Review in Advance on November 14, 2022

The Annual Review of Organizational Psychology and Organizational Behavior is online at orgpsych.annualreviews.org

https://doi.org/10.1146/annurev-orgpsych-120920-050527

Copyright © 2023 by the author(s). This work is licensed under a Creative Commons Attribution 4.0 International License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See credit lines of images or other third-party material in this article for license information.



Keywords

mental health, mental illness, prevention, intervention, accommodation

Abstract

The increasing societal awareness of employee mental health issues, especially within the ongoing COVID-19 pandemic, has led to a great deal of research examining the occupational predictors and outcomes of mental ill health. The consequences of employee mental illness can be significant to organizations, whereas providing employee mental health resources may offer a competitive advantage. This article provides a review of the definitions of employee mental health, the costs of employee mental illness to organizations and to society as a whole, and the role of the workplace in promoting positive mental health, preventing mental illness, intervening to address employee mental ill health, and accommodating employees experiencing mental health challenges. We present recommendations for future research and implications for practice.

INTRODUCTION

In his presidential address to the Canadian Psychology Association, Kelloway (2017, p. 2) suggested that there was "an unprecedented concern for issues related to workplace mental health." He pointed to the prevalence of public awareness campaigns (e.g., the Bell Let's Talk campaign in Canada), the emergence of policies related to workplace mental health (e.g., the National Standard of Canada for Psychological Health and Safety in the Workplace, launched in 2013), and the growing recognition by organizations that they need to address issues related to mental health. The COVID-19 pandemic has undoubtedly increased these concerns. As a result of declining mental health and rising rates of anxiety and depression, some authors are now predicting an "echo pandemic" (Dozois 2020) during which we can expect to see an epidemic of mental health problems following the COVID-19 pandemic.

Although heightened by COVID-19, these concerns are not new. For example, mental health issues were identified as one of the leading causes of disability among the working population (WHO 2019b). A common estimate is that 1 in 4 people (NIMH 2022, WHO 2022) experience significant mental problems. The societal costs associated with mental health issues are substantial—for example, in the US economy, costs associated with absenteeism and lost productivity are estimated to be more than \$300 billion annually (NAMI 2019). The full societal impact of mental health issues, including healthcare and pharmaceutical costs, is undoubtedly much higher. These figures, of course, do not account for the considerable disruptions in individual and family lives that may be associated with mental health issues.

For organizations, these costs are experienced through absenteeism, presenteeism, reduced productivity, increased turnover, and a host of other organizational behaviors (for a review, see Dimoff et al. 2014). Perhaps, most strikingly, much of the organizational cost of mental illness emerges from disability leave. Leave for mental health issues is typically lengthy (i.e., nearly 100 days), and approximately 30–40% of long-term disability claims result from mental illness (Dewa et al. 2002, Sun Life Financial 2021). Such claims account for more than 60–70% of disability costs in most organizations (MHCC 2017).

Beyond the financial costs, mental health issues also have considerable effects on the operations of organizations. Individuals experiencing mental health difficulties may experience reduced attention, reduced capacity to focus on the work, and fatigue that leads to diminished performance or absenteeism (Dimoff & Kelloway 2018). Negative beliefs and stereotypes about individuals with mental health problems (i.e., stigma) can alter social interactions in the workplace. Coworkers may question workload allocations when accommodations are made (Dimoff et al. 2021) and supervisors may experience frustration related to the impact of an employee's ill health on the workplace (Oakie et al. 2018).

DEFINITIONS AND PREVALENCE

Mental health is not simply the absence of illness or disease. Instead, mental health operates on a continuum, typically ranging from healthy to ill (e.g., Fikretoglu et al. 2017) (**Figure 1**). At one end of the continuum is a state of mental healthiness, typically defined as a "state of well-being in which the individual realizes [their] own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to [their] community" (WHO 2016, see specifically the chapter titled "Target 3.4: Suicide"). At the opposite end of the continuum is mental illness, which refers to a diagnosable psychological disorder characterized by dysregulation of mood, thought, and/or behavior (Am. Psychiatr. Assoc. 2013). Nearly 300 mental illnesses are classified in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) (Am. Psychiatr. Assoc. 2013) and can differ based on age of onset, symptomatology, chronicity, and severity (both within and across illnesses).

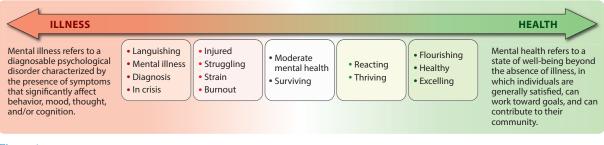


Figure 1

The mental health continuum showing the range of possible states between mental health and mental illness.

Between mental health and mental illness, there are a range of mental health states; depending on symptomology and severity, individuals can exist within, or fluctuate between, each state of mental health at any given time (Fikretoglu et al. 2017, Keyes 2002). The concept of a mental health continuum, first introduced by Keyes (2002), helps individuals and those around them recognize behavioral patterns that may signal that they (*a*) are struggling, (*b*) could benefit from additional support, and/or (*c*) should seek professional treatment.

Although there is generally consensus surrounding the end points on the mental health continuum (e.g., healthy versus ill), there is less consensus surrounding the terminology used to categorize and define these end points. For instance, Keyes (2002) defines one end of the continuum as flourishing [i.e., the presence of mental health, characterized by being "filled with positive emotion and to be functioning well psychologically and socially" (p. 210)] and the other as languishing [i.e., the absence of mental health, characterized by "emptiness and stagnation, constituting a life of quiet despair" (p. 210)]. Created in 2017, the Canadian Armed Forces' (CAF) Mental Health Continuum Model (Fikretoglu et al. 2017) describes the same end points, but does not define them. Instead, the end points of healthy and ill are described as behaviors: Healthy behaviors include normal mood fluctuations, calmness, good performance, being in control, normal sleep patterns, being physically well, and limited or no alcohol use; ill behaviors include angry outbursts or aggression, excessive anxiety or panic attacks, depression, suicidal thoughts, inability to perform duties, inability to fall asleep or stay asleep, physical illnesses, and alcohol or other addictions. Similarly, there is even less consensus surrounding the quantity, definitions, and descriptions of the mid-point mental health states that exist along the continuum. According to the CAF model, there are four states along the continuum (healthy, reacting, injured, and ill); however, Keyes (2002) contends that there are only three states along the continuum (flourishing, moderately mentally healthy, and languishing). Other adaptations of the continuum have as many as five states (e.g., Delphis's 2020 adaptation includes in crisis, struggling, surviving, thriving, and excelling).

Despite the variation within the definitions and descriptions associated with each state along the mental health continuum, the underlying concept is relatively consistent: At any given time, people can experience a state of positive mental health (whereby they are generally satisfied and happy in their lives), mental health problems (whereby they experience some distress and have difficulty coping but are able to perform daily life functions), and mental illness or disordered mental health (whereby they are unable to cope and experience debilitating distress that significantly impacts daily life functions).

Mental Health and Other Constructs

There is considerable inconsistency surrounding the terminology, operationalization, and measurement of mental health leading to significant overlap among many constructs related to mental health. Such overlap may be partially attributable to the dearth of theory surrounding mental health and mental illness in the organizational sciences (for a review, see Follmer & Jones 2018), leaving construct development, definition, and measurement somewhat ungrounded. The rather sudden burgeoning interest in workplace-relevant mental health research has also resulted in rather siloed research, whereby scholars in different, albeit similar, disciplines are using their own sets of terminology and measurement tools (Dimoff et al. 2021).

There are inconsistencies surrounding the definition of mental health and the extent to which the construct of mental health overlaps with similar topics—most notably well-being. Well-being has been defined rather loosely, often described as encompassing both mental and physical health and comprising happiness and the experiences of pleasant emotions (Lamers et al. 2011) and satisfaction that make life worth living, which is considered to be the opposite of psychological pain (Topp et al. 2015). The overarching construct of well-being has also been categorized as emotional well-being (i.e., the cognitive appraisal of satisfaction with life in general), psychological well-being (i.e., self-acceptance, personal growth, purpose in life, positive relations with others, autonomy, and environmental mastery), and social well-being (i.e., the subjective evaluation of personal life circumstances and functioning in society) (for a review, see Lamers et al. 2011).

Relative to issues dealing with physical health, mental health problems and mental illnesses are disproportionately stigmatized. Stigma is defined as a deeply discrediting attribute that reduces individuals "from a whole and usual person to a tainted, discounted one" (Goffman 2009, p. 3). Stigma can result in the negative treatment of individuals who are believed to possess the stigmatizing attribute (Jones et al. 1984). Stigma—or the fear of stigma—can affect help-seeking behavior when individuals experiencing mental health difficulties avoid seeking or receiving treatment due to the fear of being discriminated against.

Organizational practices may contribute to the stigma associated with mental health issues. Many organizations, for example, provide full coverage for "medical" care, but psychological care benefits are treated differentially, often leading to little or no coverage for employees (Kaiser Family Foundation 2021). By implication, healthcare plans reinforce the notion that mental health problems are not real and do not warrant the same level of support, financially and otherwise, that is provided to physical health issues.

We suggest that there is value in improving our depth of understanding surrounding specific mental health problems and illnesses that commonly affect working adults rather than working with broad definitions of mental health. Greater understanding may result in a reduction in stigma (e.g., Dimoff et al. 2016) and lead to more awareness of how to support employees with different mental illnesses. Just as support for diabetes looks different than support for cancer and heart disease (i.e., three of the leading causes of disability and premature death among working age adults), support for strain and burnout (i.e., two of the most common mental health problems affecting working age adults; for a review, see CAMH 2021) may need to look different from support for depression, anxiety, or substance use disorders (i.e., three of the most common mental illnesses; see CAMH 2021). How mental health is defined affects how it is measured, which affects how it is promoted, supported, and destigmatized within organizations and societies (see Smith 2019).

Common Mental Health Problems: Psychological Strain and Burnout

Psychological strain (i.e., a prolonged state of distress and tension, characterized by impaired mental health and well-being) (Lazarus & Folkman 1984) is not a diagnosable mental illness, according to the DSM-5 (Am. Psychiatr. Assoc. 2013). However, it fits along the mental health continuum within the injured (Fikretoglu et al. 2017) or struggling (Delphis 2020) categories, consisting of anxiousness, fatigue, poor sleep quality, poor performance, and depressive symptoms

(e.g., Delphis 2020). As used in organizational research, strain is the result of a prolonged stress response, whereby an individual is exposed to a stressor (i.e., an event, stimulus, or situation that requires attention and/or response), or a series of stressors, that results in a stress reaction (i.e., physiological response, characterized by heightened psychological and physical arousal, triggered by the sympathetic nervous system) (Pratt & Barling 1987).

Similar to strain, burnout (i.e., a state of emotional, mental, and sometimes physical exhaustion due to prolonged stress) (Maslach et al. 1997) is not considered a diagnosable mental illness within the DSM-5 (Am. Psychiatr. Assoc. 2013). It has, however, been included in the World Health Organization's tenth and eleventh revisions of the International Classification of Diseases (WHO 2019a). Burnout is classified as an occupational phenomenon rather than a medical condition. It is characterized by emotional exhaustion, cynicism, and detachment (Maslach et al. 1997). Burnout is often understood with references to the workplace, but the experiences of burnout can be felt in other areas of life, such as parenting or other forms of caretaking (Hakanen et al. 2008). Like strain, burnout would fit within the injured or struggling states of the mental health continuum (e.g., Delphis 2020).

Common Mental Illnesses: Depression, Anxiety, and Substance Use Disorders

According to the National Institute of Mental Health (NIMH 2022), all diagnosable mental illnesses are described as mental, behavioral, or emotional disorders that can "vary in impact, ranging from no impairments to mild, moderate, and even severe impairment." A subcategory of serious mental illnesses includes those that significantly interfere with one or more major life activities (NIMH 2022). Approximately 21% of people will experience any mental illness each year, and nearly 6% will experience a serious mental illness (CAMH 2021, NAMI 2019). Depression, anxiety, and substance use disorders are among the most commonly diagnosed mental illnesses among adults, each of which can be considered a serious mental illness depending on the severity of symptoms (NIMH 2022). They are each particularly prevalent among working age populations (WHO 2022).

Globally, depression alone affects 1 in 6 people throughout their lifetime (Am. Psychiatr. Assoc. 2020). Depression, also referred to as major depressive disorder or clinical depression, is a mood disorder that causes a persistent feeling of sadness and a loss of interest. Employees experiencing untreated depression may experience poor work-related outcomes, including disengagement at work, impaired concentration and attention, interpersonal issues, and overall declines in performance (see Lerner et al. 2010). Although depression is one of the most common mental illnesses, it is also one of the most treatable—provided people are able to seek and receive treatment without the fear of stigma, hardship, or discrimination.

Anxiety disorders are disorders characterized by chronic emotions of fear, worry, or apprehension that hinder one's ability to function normally (Am. Psychol. Assoc. 2022a) and affect approximately 1 in 5 people each year and nearly 1 in 3 in their lifetime (SAMHSA 2021). Anxiety disorders can lead people to avoid, or try to avoid, certain situations or circumstances that increase symptoms, which can include excessive fear, muscle tension, irritability, fatigue, restlessness, and having difficulty concentrating, calming down, and controlling worry (NIMH 2022). There are several types of anxiety disorders, with the most common being specific phobias (8–12% of the population), social anxiety disorder (6–10% of the population), panic disorders (2–5% of the population), and generalized anxiety disorder (2–5% of the population) (Am. Psychol. Assoc. 2022a). Like depression, anxiety disorders can significantly affect both work and nonwork outcomes.

Substance use disorders, although not nearly as common as depression and anxiety disorders, affect 1 in 5 people throughout their lifetime and are associated with significant stigma (for a

review, see CAMH 2021). Typically, alcohol is the most common substance upon which people are likely to be dependent, followed by cannabis (for a review, see CAMH 2021). Substance use disorders are illnesses that affect an individual's brain and behavior, leading to an inability to control the use of the substance (e.g., alcohol, cannabis, and nicotine) (CAMH 2021). The symptoms associated with substance use disorders include having intense urges to use the substance, needing more of the substance to achieve the same outcome over time, spending excessive amounts of money on the substance, not meeting obligations at work or with family and friends, continuing to use the substance even when aware of the problems it is causing, and failing to stop using the drug, even after multiple attempts to stop.

Other mental illnesses, such as schizophrenia, post-traumatic stress disorder, and obsessive compulsive disorder, are less prevalent within working populations, but are still relevant to the workplace. Mental illnesses are also associated with a significantly higher rate of premature death, suicidal ideation (i.e., thoughts or ruminations about the possibility of ending one's own life), and suicide (for a review, see CAMH 2021)—a topic garnering significant attention across many industries.

MENTAL HEALTH AND THE WORKPLACE

The mental health issues discussed above may influence work outcomes and may be affected by the nature of the workplace. Here, we focus on the influence of the workplace on mental health outcomes, including stress, burnout, well-being, and clinical mental health disorders. Most of this literature draws on several key theoretical frameworks to explain the effects of stressors on strain, and these are described below.

Occupational Stress

Stressors are the external conditions that potentially result in stress and, ultimately, in forms of strain (Sauter et al. 1990). Strain may manifest as mental illness, including anxiety, depression, or post-traumatic stress disorder (Dimoff & Kelloway 2017), or may lead to subclinical conditions such as burnout (Maslach et al. 1997). Strain can also manifest as physical conditions (e.g., cardiovascular disease) or behavioral difficulties (e.g., substance use) (Kelloway & Day 2005). The occupational health psychology literature draws on several frameworks to examine the processes through which stressors may affect employee strain and mental health. For example, the transactional stress appraisal model (Lazarus & Folkman 1984) posits that when individuals appraise a given stressor as a threat with which they do not have the ability to cope, they are likely to experience strain. Conservation of resources theory (COR) (Hobfoll 1989) posits that when valuable resources (e.g., valuable objects, conditions, characteristics, or energy) are threatened or lost, individuals are more likely to experience strain (Hobfoll 1989). Job demands-resources theory (Bakker & Demerouti 2018) posits that when high levels of job demands (i.e., aspects of work that require energy) are sustained over time, employees may experience strain, whereas when resources (i.e., aspects of work that assist employees in coping with demands and in performing their work) are high, employees are likely to cope better with stressors. The allostatic load model (e.g., Ganster & Rosen 2013) posits that when bodily systems (e.g., neuroendocrine, metabolic, cardiovascular, immune) become consistently dysregulated due to stressors, a series of cognitive and physiological reactions take place and the risk of long-term health effects, including strain, is elevated. Together, these models help explain how and why employees may experience stress and the conditions under which stressors lead to negative outcomes.

The stress paradox emerges because stress can lead to impairments in health and work outcomes or it can lead to health and performance improvements (Crum et al. 2013). For example, stress at work has been linked to benefits such as increased initiative-taking, proactive problem-solving, improved memory and cognitive performance, and faster information processing (for a review, see Crum et al. 2013). Although Crum et al. (2013) focused on mindset as an explanatory mechanism, the type of stressor may make a difference in the stress response and outcomes. For example, hindrance demands and challenge demands have different outcomes. Hindrance stressors relate to lower satisfaction, commitment, and performance as well as higher turnover and withdrawal behavior, whereas challenge stressors relate to more positive job attitudes, motivation, and higher performance (e.g., Podsakoff et al. 2007). In a longitudinal study, Crane & Searle (2016) found that hindrance stressors led to greater strain over time by eroding resilience, whereas challenge stressors built resilience and, in turn, led to lower strain.

Other work has examined how the amount of stress relates to health outcomes. Alpert & Haber (1960) argued that when the allostatic load rises beyond a certain threshold, stress may become debilitating, whereas under that threshold level, stress may be beneficial and actually improve health and performance. The occupational health literature has been shifting toward the study of workplace characteristics that may capitalize on the benefits of stress, using strategies such as promoting eustress or challenge stressors, while minimizing hindrance stressors and job demands (Macik-Frey et al. 2007). As such, we turn to the role of the workplace in providing employees with resources that may improve their mental health and well-being and even lead to flourishing.

The Workplace as a Resource

According to the job demands-resources theory (Bakker & Demerouti 2018), resources motivate employees extrinsically by enabling them to achieve their work goals and intrinsically by satisfying their basic psychological needs for belonging, competence, and autonomy. Resources may positively affect both work and nonwork (e.g., family, personal) well-being (Kinnunen et al. 2011) through processes such as triggering personal growth and development. Job resources like leadership, autonomy, social support, and meaning are most consistently supportive of employee well-being and mental health outcomes (Nielsen et al. 2017). Below, we discuss the ways in which work can provide resources to employees that may promote mental health.

The work itself. Work itself can be a resource that may promote mental health, because it is a source of structure, social benefits, purpose, identity, and, obviously, livelihood and security in the form of income (Day & Randell 2014). When individuals lose these resources—through unemployment—significant increases in mental health disorder rates may ensue (Subramaniam et al. 2021). Although participation in the workforce alone may provide resources, other key workplace characteristics such as leadership quality, meaning, support, and autonomy are critical factors for employee mental health.

Leadership. A great number of studies have examined how effective leadership may promote well-being (for reviews, see Kelloway & Barling 2010) and also how poor leadership may be detrimental to well-being (Kelloway & Day 2005). Transformational leadership, which is characterized by behavior that motivates and inspires employees, challenges them to think creatively, considers employees' individual needs, and models ethical behavior, has been consistently related to employee well-being (Kelloway & Barling 2010). Such leadership may provide employees with resources such as autonomy and control, increased self-efficacy, support, opportunities for involvement and professional development, as well as meaning, which may increase employees' capability to cope with stressors and minimize strain. A good quality relationship between the leader and the employee can also facilitate mental health, because leaders are more likely to share helpful information and resources with employees whom they trust, respect, and like (Nielsen et al. 2017).

Leaders can also play a critical role in recognizing signs of psychological distress and facilitating employee access to mental health resources (Dimoff & Kelloway 2019a).

Meaning. Work can be an important source of meaning in life and life satisfaction that acts as a resource for building mental health (Steger & Dik 2010). Meaningful work that is significant and positive promotes a sense of fulfillment and purpose as well as personal growth, and it contributes to the collective good (Steger et al. 2012). Meaning may promote a sense of psychological well-being by helping employees connect with others as well as develop a deeper understanding of the world around them and their role within that world (Steger & Dik 2010). Meaning at work may also promote mental health by establishing stability in life and by promoting the ability to deal with stress (Britt et al. 2001). Furthermore, when employees see their jobs as an inherent part of who they are, they are more likely to find meaning in their work and derive benefits such as self-esteem, psychological well-being, and positive identity.

Support. Social resources may be particularly important for mental health and well-being (Ashforth et al. 2008). The buffering hypothesis states that social support is a critical resource toward buffering, or mitigating, the effects of stress on employees, which in turn may reduce employee strain and psychological symptoms (Cohen & Wills 1985). Support from colleagues or supervisors at work may help stressed employees to cope, problem-solve, reduce the perceived importance of the stressor, or receive resources to deal with the stressor (Cohen & Wills 1985). Support at work also satisfies our basic need for belonging, and that we matter to others, which fosters mental health and adjustment (Baumeister & Leary 1995). In contrast to support, isolation can have negative consequences for mental health such as depression, anxiety, and stress-related disorders as well as feelings of anger (Henssler et al. 2021).

Autonomy and control. Autonomy and control have been highlighted as key work resources that may promote well-being (Gagné & Deci 2005). Having the ability to capitalize on strengths at work, such that employees can choose work that fits their skillset or choose goals that suit their talents, promotes well-being. Such work is likely to be more self-expressive and intrinsically motivating and to lead to well-being (Ryan & Deci 2000). Self-managed work teams, for example, have the capability to make decisions regarding how they will do their work. Job crafting (Tims et al. 2012) is a way that employees can redesign their job to suit their strengths, interests, and motives. Skill discretion is another type of autonomy, wherein employees may choose what skills to apply in their work and have the opportunity to use a variety of their skills at work (Karasek 1990).

The Psychologically Healthy Workplace

There is both a social and moral imperative to examine the factors that promote psychological health in the workplace (Gilbert & Kelloway 2014). Socially, employees increasingly seek to work in fulfilling, meaningful, and enjoyable working environments, and morally, it is important to examine work factors that promote mental health given how damaging dysfunctional workplaces can be for employees' health. The notion of a psychologically healthy workplace refers to a workplace that reduces stressors and provides resources to employees that can promote their health and wellbeing (Kelloway & Day 2005). Psychologically healthy workplaces address five key dimensions of a healthy work environment: work-life balance (e.g., flex-time, caregiver assistance), recognition (e.g., acknowledging employee contributions), employee involvement (e.g., job autonomy, empowerment, and contributions to decision-making), growth and development (e.g., professional development, career advancement), and health and safety (e.g., protecting employee well-being) (for a review, see Day & Randell 2014). **Table 1** provides dimension definitions and some examples of how they might be supported in practice. Foundational to all dimensions is effective top-down

Dimension	Definition	Example strategies for implementation
Work-life balance	Providing employees with flexibility	Paid time off for mental health, healthcare appointments,
	and resources that allow them to	bereavement
	manage their life demands outside	Flexible work arrangements or telecommuting
	of work	Assistance with childcare or eldercare (e.g., onsite daycare)
Recognition	Acknowledging employee	Monetary compensation (e.g., performance-based bonuses)
	achievements through monetary	Formal, nonmonetary recognition (e.g., awards ceremonies,
	and nonmonetary rewards	written acknowledgments, celebrations for project milestones)
		Informal, nonmonetary recognition (e.g., verbal praise or
		thanks for good work)
Employee involvement	Empowering employees to be part of	Self-managed work teams
	decision-making and to be	Shared leadership models such as rotating meeting chairs
	creative, and providing them	regularly
	autonomy	Soliciting employee feedback and input such as through an anonymous feedback system
		Creating task forces to solve problems
Growth and development	Providing opportunities for	Offering opportunities for professional development or
	employees to increase their skills	cross-training
	and competencies and to apply	Tuition reimbursement
	them at work	Offering mentorship and coaching
		Career advancement opportunities
Health and safety	Promoting physical and	Policies to protect workers (e.g., antibullying,
	psychological health and safety of	antiharassment)
	employees through prevention,	Healthy food options at work
	assessment, and treatment of	Offering walking clubs, fitness facilities, or wellness courses
	health risks and by encouraging	Providing a healthy (e.g., smoke-free) work environment
	healthy and safe behaviors	Offering standing desks or walking meetings

Table 1 Psychologically healthy workplace dimensions, definitions, and practices^a

^aData from Am. Psychol. Assoc. (2019) and Day & Randell (2014).

and bottom-up communication about work practices and the importance of tailoring workplace practices to suit the context and unique challenges of the particular organization. Kelloway & Day (2005) added that corporate social responsibility, a culture of respect, support, and fairness, work content and characteristics, and positive interpersonal relationships at work would also promote psychological health. Together, these elements promote both employee well-being and better organizational functioning. Although framed in terms of the workplace, we note that leaders play a direct role in creating and maintaining a psychologically healthy environment. Biricik Gulseren et al. (2021), for example, proposed the R.I.G.H.T. model of leadership, which draws on models of the psychologically healthy workplace to suggest five key leadership behaviors. They proposed that employees' sense of psychological safety and well-being would be enhanced to the extent that leaders engaged in recognition (e.g., praising good work), involvement (e.g., involving others in decision-making), supporting employee growth and development, promoting employees' health and safety, and fostering an environment that encouraged teamwork.

How Mental Health Problems Manifest in the Workplace

Numerous indicators of poor employee mental health have been examined in the occupational health literature and include diagnoses of clinical mental health disorders (e.g., anxiety, depression), substance abuse, psychological distress or strain, and burnout (Martin et al. 2009). The

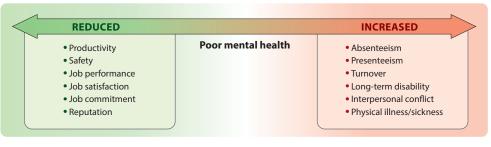


Figure 2

Work outcomes of poor mental health: Poor mental health is associated with negative work outcomes.

literature examining the work outcomes of these conditions further emphasizes the costs of poor mental health to organizations, beyond what was described above (see **Figure 2**).

Burnout is characterized by chronic levels of three states: emotional exhaustion, cynicism, and lack of professional efficacy (Maslach et al. 1997). Work outcomes of burnout include withdrawal behaviors like absenteeism and turnover, decreased job performance, decreased job satisfaction and commitment, and more interpersonal conflict with colleagues (Maslach et al. 1997). Health outcomes of burnout include depression and life dissatisfaction, insomnia, type 2 diabetes, susceptibility to colds, cardiovascular diseases, use of psychotropic medications, and hospitalization due to mental health disorders (see Shirom et al. 2005).

The unique effects of disorders such as anxiety and depression can be hard to determine, as they are highly comorbid (Kasper et al. 2003). However, employee anxiety and depression relate to poor work outcomes including intention to quit, reduced job satisfaction and job performance, as well as more severe physical symptoms that may promote higher sickness absenteeism (Pyc et al. 2017). Both anxiety and depression have been associated with increased risk of adverse safety outcomes at work, such as motor vehicle crashes and medication errors in healthcare workers (Weaver et al. 2018).

Deady et al. (2022) found that when anxiety and depression co-occurred, employees had more severe symptoms as well as poorer work performance and greater absenteeism compared to participants who had depression or anxiety alone. In those with anxiety or depression only, presenteeism (working when functioning is impaired due to mental or physical illness) was higher compared to co-occurring anxiety and depression (Deady et al. 2022). de Graaf et al. (2012) found that mental and physical health were comparable in terms of number of workdays lost and number of days of reduced functioning at work. In their study, drug abuse, bipolar disorder, and major depression were the top three conditions related to lost workdays. In a longitudinal study, Hendricks et al. (2015) found that comorbid anxiety and depression were most likely to relate to lost work time due to long-term work disability and absenteeism over four years, whereas depression related to slightly lower lost work time, and anxiety related to the lowest levels of lost work time.

Substance abuse in the workplace has been associated with costs to employees' health, productivity at work, and safety outcomes like injuries and accidents at work, but the evidence on these outcomes is mixed (Frone 2004). Previous studies have implicated alcohol abuse in 5– 37% of nonfatal workplace injuries, depending on the industry (van Charante & Mulder 1990). The effects of substances such as alcohol, sedatives, marijuana, or opioid analgesics on performance are unclear, as some studies find no effect on performance, whereas others have found performance impairment such as time estimation, reaction time, vigilance, and divided attention. The evidence on stimulants is also mixed, where at times they may not affect performance and other evidence suggests they may promote higher performance (for a review, see Frone 2004). Methodological weaknesses in these studies limit the generalizability to actual workplace performance (Frone 2004). Substance use at work may also relate to reduced contextual performance, greater aggression at work, and withdrawal behaviors (Greenberg & Barling 1999).

Suicidal ideation and attempted suicide (Howard & Krannitz 2017) can have far-reaching effects in the workplace. Surviving employees may experience trauma or depression and feelings of guilt or rejection (Clark & Goldney 2000). Nonfatal suicidal behaviors (suicide attempts) are far more common than fatal suicide (WHO 2016, see specifically the chapter titled "Target 3.4: Suicide") and also lead to lost work time and to emotional distress among colleagues (Kinchin & Doran 2017). Publicity over suicides in the workplace can also lead to great damage to the organization's reputation, especially if they can be attributed to work stress and can cause surviving employees anger and resentment toward the organization (Kinder & Cooper 2009). Managers who handle the aftermath of such deaths may feel a great deal of distress and even guilt after an employee suicide and may need support to address the situation, work with the family and surviving employees, and manage their own emotional distress (Kinder & Cooper 2009).

The Signs of Struggle

Dimoff & Kelloway (2018) identified five observable, behavioral warning signs, known as the Signs of Struggle, that managers can use to recognize signs of employees' deteriorating health and wellbeing. These signs include emotional distress (e.g., crying, complaining), withdrawal (e.g., reduced social interaction at work, reduced effort in work tasks), attendance changes (e.g., reduced attendance or increased lateness), reductions in performance (e.g., in quality and/or quantity), and extreme behaviors (e.g., showing reduced hygiene, substance use at work, or expressing a desire to hurt oneself or others) (Dimoff & Kelloway 2018). Managers who recognize these warning signs are in a better position to provide support to employees who may be struggling or in distress.

It is important to note that knowledge of the Signs of Struggle does not enable the supervisor or manager to diagnose mental health problems. The same signs may appear if the employee is experiencing depression or is having marital difficulties or has a child with a severe illness. Rather, supervisors/managers are encouraged to use these signs to recognize when an individual is experiencing some kind of crisis and to intervene based on the observed behaviors rather attempting to infer a cause.

The Signs of Struggle tool has been incorporated into the Mental Health Awareness Training (MHAT) program, providing workplace leaders with specific guidelines on how to recognize warning signs, appropriately approach employees about their observations, and provide support, such as accommodation (e.g., flex-time, alternative duties) and workplace resources [e.g., information about employee assistance programs (EAPs), human resources benefits, and even paid time off]. Recognizing warning signs is the first step in a multiphase process, whereby leaders can introduce or implement resources designed to support employee mental health (Dimoff & Kelloway 2017). Furthermore, by recognizing these signs early and facilitating intervention, managers may be able to prevent further worsening of mental health and work outcomes (Dimoff et al. 2016).

WORKPLACE MENTAL HEALTH PROGRAMS

Organizational attempts to address mental health issues have been characterized as minimalistic (Jones-Chick & Kelloway 2021)—most often being limited to the provision of an EAP and, perhaps, some allowance for mental health services in the employee benefits package. Typically, EAPs go beyond "treating" mental health issues and provide access to a wide array of counseling and psychoeducational materials that allow employers to offer a wide variety of counseling (e.g., legal counsel, financial counsel) that can help employees deal with a variety of issues. There is little doubt that even these minimalistic interventions can help. Mental health counseling is effective in improving health outcomes (Hunsley et al. 2013). Counseling services, including access to online or app-based support, are associated with lower levels of presenteeism and a significant return-on-investment (Hargrave et al. 2008). Health benefits such as prescription drug coverage, telemedicine services and time off improve treatment-seeking, thereby improving the prognosis for those with mental health problems (Ekeland et al. 2010). Individuals who are experiencing a mental health crisis, however, may fail to access resources for a variety of reasons (see Dimoff et al. 2016). As a result, usage of services such as EAPs remains low, with some estimating that fewer than 5% of employees access their EAP services (Attridge et al. 2013).

The American Psychological Association has launched an initiative to encourage organizations to address mental health issues in the workplace (Am. Psychol. Assoc. 2022b). They recommend specific steps such as (*a*) training managers to promote health and well-being, (*b*) re-examining health insurance policies with a focus on employee mental health, (*c*) developing policies and programs that support employee mental health, and (*d*) taking a critical look at diversity, equity, and inclusion policies among other actions. The intent of the initiative is to create organizational cultures that support employee mental health.

In response to low uptake rates for EAP services, Kelloway (2017) (see also Jones-Chick & Kelloway 2021) suggested that a comprehensive approach to workplace mental health would involve three elements: prevention, intervention, and accommodation (see **Figure 3**). The three pillars model developed by Kelloway (2017) recognizes the importance of helping individuals who are in crises (e.g., through EAP programs). However, the model also recognizes that organizations play a key role in preventing or mitigating workplace factors that contribute to mental ill health. Moreover, organizations have a stake in developing accommodation policies that allow individuals to stay at work, or effectively return to work following a mental health crisis.

Pillar 1: Prevention

Primary prevention in organizations has typically focused on reducing job stressors or enhancing job resources in an effort to promote a psychologically healthy workplace (e.g., Kelloway & Day

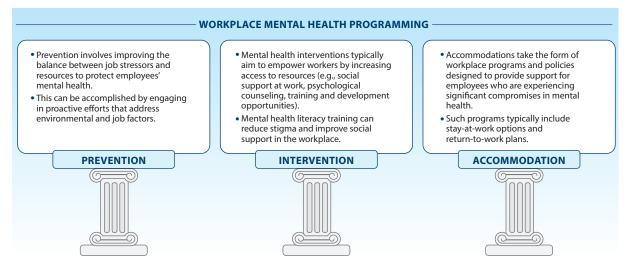


Figure 3

The three pillars of workplace mental health programming: prevention, intervention, and accommodation.

2005). Such efforts have typically focused on either changing the environment through altering job characteristics or changing the individual by providing new skills to manage workplace stressors. In their review of workplace stress interventions, Holman et al. (2018) concluded that there was convincing evidence to support both approaches.

Considerable research attention has been paid to environmental interventions, that is, changing the nature of the work environment by altering the nature or social context of the work or by implementing participatory interventions. Research focused on the nature of the work, for example, has focused on redesigning jobs (e.g., Holman et al. 2009) so as to increase employees' sense of control or to enhance feedback in the workplace. Implementing flexible work arrangements (e.g., Duval et al. 2020) would be another means of changing the work environment that has beneficial outcomes for employee mental health.

The social context of work may be changed through initiatives such as establishing social support mechanisms or conflict management programs (Holman et al. 2018). Kelloway & Barling (2010) pointed to the extensive literature linking organizational leadership to employee health and suggested that leadership development would be a fruitful intervention to improve employee wellbeing. Providing family supportive leadership training, for example, has been a positive influence on employees' experiences of work-family conflict (Hammer et al. 2016).

Participatory interventions also aim to change the work environment but do so by drawing on the expertise of stakeholders within the workplace (Nielsen et al. 2021). Thus, rather than being theory-driven or fixed in advance, the nature of the intervention relies on employees and managers. Such interventions can also be successful in reducing stressful working conditions and empowering employees (Nielsen et al. 2021).

Individual interventions are designed to provide employees with the skills and abilities to manage stress or to promote their own well-being. Rather than changing the work environment, the focus is on changing the individual by enhancing their ability to deal with their environment. Although researchers often articulate a preference for primary (i.e., environmental) intervention (e.g., Kelloway et al. 2008), Holman et al. (2018) note that considerable support exists for the effectiveness of techniques such as relaxation training, applications of cognitive behavioral therapy or acceptance and commitment therapy, or mindfulness interventions (e.g., Holman et al. 2018), as well as programs designed to enhance individual resilience (Robertson et al. 2015).

Pillar 2: Intervention

In the context of mental health programming, intervention does not typically refer to the direct provision of mental health services (which rarely occurs in the workplace). Rather, organizational interventions consist of training and development activities focused on (*a*) increasing understanding of mental health issues and reducing mental health stigma, (*b*) recognizing when employees might be struggling with a mental health issue, and (*c*) potentially intervening to ensure that the individual can access the required resources. Generically, such programs might be referred to as providing training in mental health literacy. Perhaps the most well-known of these programs is the Mental Health First Aid training (Kitchener & Jorm 2002), although similar programs also exist, for example, the Working Mind (Dobson et al. 2019) and Roads to Mental Readiness (Carleton et al. 2018).

There is consistent evidence that participation in such programs increases knowledge about mental health issues and reduces stigma around mental illness. Moll et al. (2018), for example, reported a randomized trial comparing two programs—Mental Health First Aid and Beyond Silence—designed to increase mental health literacy. Both programs were successful in increasing mental health literacy, reducing stigma toward mental health issues, and improving attitudes toward seeking treatment. Similar results—i.e., improved knowledge and attitudes about mental health and decreased stigma—have emerged from evaluations of other programs such as the Working Mind (Dobson et al. 2019) and Roads to Mental Readiness (Carleton et al. 2018). There is, however, little evidence to suggest that training in mental health literacy results in behavioral change, such as seeking help (Moll et al. 2018), results in improvements in mental health among the trainees (Carleton et al. 2018), or substantially affects the mental health of those with whom trainees work (Booth et al. 2017).

A more focused approach to workplace mental health has been to increase the mental health literacy of managers in the workplace. The focus on leaders reflects the observation that mental health problems often manifest in the workplace and can result in legitimate concerns of managers (e.g., absenteeism, performance decrements)—in a very real sense, "mental health problems are management problems" (Dimoff & Kelloway 2019a, p. 105). Moreover, managers can act as resource facilitators within the workplace (Dimoff & Kelloway 2017), identifying, and helping employees to access, resources such as EAPs, short- or long-term leave, and workplace accommodations.

Mental health literacy training is as effective for managers as it is for employees—such training results in improved knowledge and attitudes about mental health problems and reduced stigma (Gayed et al. 2018). However, there is also evidence that the effects of training managers in mental health literacy go beyond the trainees to influence workplace outcomes. Dimoff et al. (2016) developed MHAT, a mental health literacy training program for managers. An evaluation based on an experimental design in two organizations showed that the training resulted in managers' developing more knowledge, improved attitudes, and increased willingness to talk about mental health in the workplace. Moreover, in one organization the authors were able to compare units in which the training was implemented with those in which it was not-they noted a substantial decline in the length of disability claims associated with mental health disorders. Using a similar program (i.e., a four-hour training program for leaders), Milligan-Saville et al. (2017) found that absenteeism decreased in units where the leader participated in training. In a further evaluation of MHAT, Dimoff & Kelloway (2019b) demonstrated that training leaders increased their knowledge and improved their attitudes toward mental health issues. However, this second study also showed that employees of the trained leaders increased their workplace helping behaviors and, as a result, employees were more willing to seek help for mental health problems.

Taken together, these findings suggest that mental health literacy training is an effective means of increasing knowledge of mental health issues and decreasing stigma in the workplace. However, consistent with the view that managers are in a unique position to help employees experiencing mental health issues (Dimoff & Kelloway 2019a), targeting managers for mental health literacy training appears to be associated with changes among the employees that result in substantial benefits to the organization.

Pillar 3: Accommodation

Although the goal of interventions is to prevent or mitigate the consequences of employees' experiencing mental health difficulties, it must be recognized that problems may originate outside of, but still affect or manifest in, the workplace (Dimoff & Kelloway 2019b). Accordingly, comprehensive workplace programming should also include provision for return-to-work and stay-at-work accommodations.

Return-to-work provisions. The goal of return-to-work provisions is typically to ensure a prompt and sustainable return to the workplace, thereby minimizing both the financial and psychosocial costs of extended leave. However, the former goal (i.e., an early return to work) has

largely taken precedence for researchers with comparatively little focus on relapse prevention or sustainability (Nielsen et al. 2018). This is an unfortunate gap in that relapses and recurrences of leave are common—particularly in the early phases of a return to work (Nielsen et al. 2018). Recurrences were associated with longer absences from work than the original leave. Moreover, those who return to work after experiencing a mental health problem may also have diminished capacity at work, and there are few studies that address integration back into the workplace for those who have been on leave as a result of a mental health problem (Dewa et al. 2014). Encouraging an early return to work, therefore, may save money in the short term by reducing the cost of the initial claim but may lead to further, longer claims down the road in addition to resulting in more disruption in the organization.

Research on return to work after physical disabilities suggests the effectiveness of five strategies that reduce the duration, and associated costs, of work disability leaves; i.e., work accommodation offers, supernumerary replacements, ergonomic worksite visits, contact with the worker and with the healthcare provider, and return-to-work coordination (Franche et al. 2005). The extent to which these strategies generalize to return to work for individuals with mental health problems remains undetermined. Smith et al. (2020) provided some evidence that the challenges of return to work following a mental health disorder may differ from those associated with a physical disorder. We note, for example, that stigma may result in workers not asking for or not taking advantage of return-to-work arrangements (Eakin 2005), thus mitigating their potential effectiveness.

Joosen et al. (2017) examined the factors that influenced the return-to-work process of employees on leave as a result of mental health problems. They suggested that return to work was affected by the type of work, a safe and stigma-free work environment, collaboration between healthcare professionals, a personalized approach to support, and individual emotions and cognitions that did not impede return to work (e.g., fear, anxiety). Nielsen et al. (2018) proposed a comprehensive model of sustainable return to work based on COR theory (Hobfoll 1989). They define sustainable return-to-work practices as those that prevent a relapse and suggest that a sustainable return to work would encompass (*a*) minimal sickness absence, (*b*) functioning well at work, and (*c*) working contracted hours with equal earnings. Drawing on COR theory, they suggest that resources at the individual (e.g., cognitive, affective, and behavioral resources), group (e.g., positive group experiences when returning to work), leadership (e.g., inclusive and supportive leadership), organizational (e.g., human resource management policies that support return to work), and overarching (e.g., societal resources such as healthcare) context levels (Nielsen et al. 2018) will affect the likelihood of a sustainable return to work following leave attributable to a mental health disorder.

Stay-at-work accommodations. Most developed countries have legislation that protects individuals with disabling conditions—such legislation typically prohibits discrimination against, and requires the provision of accommodations for, individuals with disabilities, including mental illness (e.g., Americans with Disabilities Act). As with return-to-work provisions, most research has focused on accommodations for physical disabilities with comparatively little research on accommodations for mental health issues (McDowell & Fossey 2015).

Based on their systematic review of the literature, Zafar et al. (2019) identified five categories of mental health accommodations: (*a*) scheduling flexibility (e.g., slower pace, flexible work schedules), (*b*) modified job descriptions (e.g., work-from-home arrangements, reduced or modified tasks), (*c*) redesign of physical space, (*d*) communication facilitation (e.g., coaching, additional supervision), and (*e*) other (e.g., transportation). Of the five, communication facilitation and scheduling flexibility were the most common (Zafar et al. 2019). In their review, McDowell & Fossey (2015) also noted that flexible scheduling and assistance from an employment support worker were common forms of accommodation. Researchers have also examined whether accommodations for mental health issues "work" for both the individual and the organization. Overall, the data suggest that mental health symptoms, morale, retention, and performance are all positively affected by workplace accommodations with a relatively low cost to the employer (e.g., Bolo et al. 2013). For example, providing job flexibility and support has been associated with reduced anxiety symptoms and enhanced work performance (Mellifont et al. 2016). Fabian et al. (1993) reported increased retention for employees receiving more than five workplace accommodations relative to employees receiving fewer accommodations. Solovieva et al. (2011) reported an increase in employee and organizational productivity following accommodations for both physical and mental health issues. Recipients of accommodations for mental health issues reported improved interpersonal relations with coworkers and improved morale (Schartz et al. 2006). Gewurtz et al. (2018) suggested that accommodations were associated with increased job satisfaction, improved relationships at work, and improved organizational culture.

The benefits of accommodations may be obtained at a relatively low cost and generate an economic return to employers. Schartz et al. (2006) found that most accommodations came without direct cost and only a minority (6.2%) were associated with annual costs exceeding \$1,000. Schur et al. (2014) also reported that the majority of accommodations cost less than \$500 to implement. Gewurtz et al. (2018) estimated that organizations received a benefit between two to seven times the cost of the accommodations.

IMPLICATIONS

Implications for Research

Research related to employee mental health and general health and well-being has gained considerable traction within the organizational and social sciences over the past 40 years, particularly since the development of the formal discipline of occupational health psychology (Sauter et al. 1990). Unfortunately, one issue plaguing current progress surrounding workplace mental health research is a general lack of integration across and within disciplines. Although siloed research paradigms are not uncommon in the social sciences, topics such as mental health span disciplines such as social work, medicine, counseling, and clinical psychology as well as organizational psychology/behavior. Yet, very few published studies seem to integrate the perspectives of two or more of the aforementioned disciplines (Follmer & Jones 2018, Smith 2019).

A general lack of integration surrounding mental health research perpetuates inconsistencies in terminology, operationalization, and measurement of mental health at all positions along the continuum (Follmer & Jones 2018). Due to the enhanced interest in mental health across organizational psychology and management, there is a growing breadth of research paradigms, with some research being highly theory-driven and other research being more application-focused. For example, mental health–focused intervention research has tended to lack strong theoretical tenets (Follmer & Jones 2018). Future research on workplace mental health would hugely benefit from a balance between being both theory-driven and application-focused, particularly given organizations' current appetite for protecting and promoting mental health at work (Kelloway 2017).

Although there is more research on mental health in general, it is still rare to find researchers examining mental health and illness in specific groups of workers, such as those in precarious work arrangements, women, visible minorities, caregivers (e.g., single parents, adults providing eldercare to aging parents), younger or older workers, and LGBTQ+ employees, or examining the ways that multiple identities may intersect to predict mental health (Hastuti & Timming 2021). By typically grouping all workers together, research findings may be generalizable, but

not particularly meaningful or actionable, particularly given the highly individualized nature of mental health and mental illness (Sparks & Cooper 1999).

Similarly, although stigma is a leading cause of inadequate treatment-seeking and underutilization of mental health resources (Clement et al. 2015), very little research has examined mental health stigma from a more nuanced perspective (Smith 2019). This is particularly relevant given that different mental health problems and illnesses tend to be associated with different types of negative stereotypes, potentially leading some mental illnesses, such as depression, to be differently stigmatized than other mental illnesses, such as eating disorders (Smith 2019). Similar findings have been found across types of cancer, whereby some cancers are more highly stigmatized than others, resulting in more or less support from workplaces and society as a whole (Sriram et al. 2015).

Organizational science research would also benefit from more attention to the moderating variables that affect relationships between work-related variables and each state of mental health along the mental health continuum. Given the complexities surrounding mental illnesses and the highly individualized experiences surrounding mental health (and mental ill health), greater understanding is needed surrounding (*a*) which primary intervention tactics are most successful in promoting and protecting employee mental health, (*b*) how specific mental illnesses are stigmatized, particularly during particular stages of the employment process, such as hiring and promotion, (*c*) the conditional effects of mental health interventions, programs, and policies, which would provide insight into the reasons for successful support of some workers but not others, and (*d*) the influence of managers' mental health on the mental health of team members, as well as the overall mental health climate in the workplace and broader organization.

Another potential moderating variable in the work-mental health relationship may be culture and national context. Scant research in occupational health psychology examines cross-cultural differences in the experiences of employee mental health and mental ill health. The very concepts of well-being and mental health may be culturally dependent, and culture may influence the perceptions and management of stress. For example, in Indigenous cultures worldwide, wellbeing is characterized by many interrelated components including emotional, spiritual, physical, and family health (Haar & Ghafoor 2021) and is not restricted to physical and psychological health alone, as it typically is in Western cultures. Cross-cultural differences also may affect employee perceptions of stressors and moderate the stressor-strain relationship (Spector et al. 2004). International and cross-cultural research should examine the predictors of culturally relevant definitions of well-being and mental health, develop and test theories of cultural differences in mental health experiences, and test cross-level interactions among cultural-, organizational-, group-, and individual-level variables, such as employee stress, well-being, and mental health. Tsui et al. (2007) recommend that organizational scholars use interdisciplinary and polycontextual approaches that measure multiple national (e.g., social and economic context) and cultural (e.g., beliefs, values) features of the context that may affect ways of knowing and sources of meaning, and ultimately influence employee mental health.

Implications for Organizations: Evidence and Advocacy

As a result of the COVID-19 pandemic, investments have been made into mental health–relevant programs and policies, use of screening tools, awareness campaigns, and training worldwide (Kola et al. 2021). To meet the rapidly increasing demands associated with workplace mental health, many employers may risk turning to programs, policies, or interventions that may be available and marketed widely, but largely ineffective and/or unevaluated (Jones-Chick & Kelloway 2021). In some circumstances, they may even result in negative consequences, as has been observed in similar areas, such as efforts surrounding diversity, equity, and inclusion (e.g., Kaiser et al. 2013).

Thus, it is critical that organizations critically evaluate the evidence for mental health programs and policies and recognize that some such initiatives will be more effective than others.

In what Jones-Chick & Kelloway (2021) referred to as a minimalistic approach, mental health programs in organizations have typically been focused on responding to symptoms of ill health. When organizations go beyond this, it is often to incorporate individual-level programs (e.g., resilience training, stress-management training) that place much of the responsibility on employees who are already struggling and in a weakened position to be able to cope with new and existing stressors.

There is a growing recognition of the value of incorporating both organizational-level and individual-level interventions. Meta-analytic findings lend considerable support for such multimodal programs (e.g., LaMontagne et al. 2014). Organizations are well-advised to ensure that their mental health program (a) cultivates a strong mental health climate, characterized by availability of mental health information and resources at work and an ability to talk about mental health at work (Hastuti & Timming 2021), (b) incorporates management selection and training processes that prioritize people-centered leadership competencies and mental health literacy (e.g., supportive supervision) (Dimoff et al. 2016), (c) creates opportunities for employees to engage in meaningful work (e.g., Warr 1987), and (d) provides employees with the time and resources to access evidence-based programs such as cognitive behavioral training, relaxation and recovery interventions, and goal-setting workshops as well as mindfulness programs (Holman et al. 2018). Because a one-size-fits-all approach is rarely appropriate, particularly when it comes to employee mental health, organizations may be best suited to providing a menu of evidence-based options from which employees can choose. Of course, employee choices are likely to be most appropriate if they are working in an environment where mental health literacy and mental health climate are strong (Hastuti & Timming 2021).

Improving mental health literacy among the general working population may serve as a critical step in reducing stigma surrounding mental illness and increasing understanding of mental health issues. However, as we have noted, literacy training in and of itself seems to have little effect on either mental health or willingness to access mental health resources. Literacy training is, therefore, a critical step but only the first step to effective mental health programming. **Table 2** provides a summary of implications for both research and practice.

Finally, as the terms mental health and mental illness are adopted as part of the lexicon within industrial/organizational psychology and organizational behavior, we note the need for

Implications for research	Implications for practice
Adopt multidisciplinary approaches that	Adopt evidence-based and effective mental health
integrate theories of mental health	interventions, services, and programs
Examine moderators of relationships	Cultivate a strong mental health climate that
between work variables and mental	encourages open and safe communication about
health/illness variables (e.g., managers'	mental health or illness
mental health, culture)	Prioritize supportive supervision and mental health
Develop and evaluate primary intervention	literacy in management selection and training
strategies that promote mental health	Create opportunities for employees to engage in
Identify boundary conditions of mental	meaningful work
health intervention strategies	Provide employees with the time and resources to
Conduct research using theory-driven and	access mental health support (e.g., cognitive
application-focused approaches to derive	behavioral therapy, relaxation and recovery
implications for both research and practice	interventions, goal-setting or mindfulness programs)

Table 2 Summary of implications for mental health research and practice

researchers and managers to become aware of the legal and ethical considerations and limitations surrounding mental health within a workplace setting. Many existing measurement tools specific to mental health and mental illness are not appropriate for workplace settings, may come across as invasive to employees, and are designed for assessing clinical levels of mental ill health. Treatment for mental illnesses will extend beyond the scope of the workplace, and managers and researchers need to recognize the limits of what can and should be accomplished at work. It is equally as critical for organizational scientist-practitioners to ensure that existing mental health programs and research findings be adapted to fit the legal and ethical contexts of the workplace.

CONCLUSION

There is a growing recognition of the importance of mental health issues for the workplace. There is little doubt that workplace conditions can contribute to, or exacerbate, mental health issues and even less doubt that mental health illnesses or problems can and do manifest in the workplace. We point to the costs of mental health issues in organizations and advocate for comprehensive workplace programming based on the three pillars of prevention, intervention and accommodation. We also recognize the need for organizational researchers to take on the challenge of understanding mental health issues in an organizational context and to integrate knowledge from other domains about mental health issues. To the extent that we are able to understand how mental health issues affect the workplace and take action to minimize negative consequences for individuals, both organizations and the people they employ will be healthier.

DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

ACKNOWLEDGMENTS

All authors contributed equally to the preparation of this manuscript, which was supported by a grant from the Canadian Institute for Health Research to all three authors and a grant from the Social Sciences and Humanities Research Council of Canada to E.K.K. and J.K.D.

LITERATURE CITED

Alpert R, Haber RN. 1960. Anxiety in academic achievement situations. 7. Abnorm. Soc. Psychol. 61:207-15

- Am. Psychiatr. Assoc. 2013. Diagnostic and Statistical Manual of Mental Disorders. Washington, DC: Am. Psychiatr. Assoc. 5th ed.
- Am. Psychiatr. Assoc. 2020. What is depression? American Psychiatric Association. https://www.psychiatry. org/patients-families/depression/what-is-depression
- Am. Psychol. Assoc. 2019. Psychologically Healthy Workplace Awards 2019. Rep., Am. Psychol. Assoc., Washington, DC
- Am. Psychol. Assoc. 2022a. APA Dictionary of Psychology: anxiety disorders. American Psychological Association. https://dictionary.apa.org/anxiety-disorder
- Am. Psychol. Assoc. 2022b. Striving for mental health excellence in the workplace. American Psychological Association. https://www.apa.org/topics/workplace/mental-health
- Ashforth BE, Harrison SH, Corley KG. 2008. Identification in organizations: an examination of four fundamental questions. *J. Manag.* 34(3):325–74
- Attridge M, Cahill T, Granberry SW, Herlihy PA. 2013. The National Behavioral Consortium industry profile of external EAP vendors. J. Workplace Behav. Health 28(4):251–324

- Bakker AB, Demerouti E. 2018. Multiple levels in job demands-resources theory: implications for employee well-being and performance. In *Handbook of Well-Being*, ed. E Diener, S Oishi, L Tay, pp. 1–13. Salt Lake City, UT: DEF Publ.
- Baumeister RF, Leary MR. 1995. The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychol. Bull.* 117(3):497–529
- Biricik Gulseren D, Thibault T, Kelloway EK, Mullen J, Teed M, et al. 2021. R.I.G.H.T. leadership: scale development and validation of a psychologically healthy leadership model. *Can. J. Adm. Sci.* 38(4):430–41
- Bolo C, Sareen J, Patten S, Schmitz N, Currie S, Wang J. 2013. Receiving workplace mental health accommodations and the outcome of mental disorders in employees with a depressive and/or anxiety disorder. *7. Occup. Environ. Med.* 55(11):1293–99
- Booth A, Scantlebury A, Hughes-Morley A, Mitchell N, Wright K, et al. 2017. Mental health training programmes for non-mental health trained professionals coming into contact with people with mental ill health: a systematic review of effectiveness. *BMC Psychiatry* 17:196
- Britt TW, Adler AB, Bartone PT. 2001. Deriving benefits from stressful events: the role of engagement in meaningful work and hardiness. *J. Occup. Health Psychol.* 6(1):53–63
- CAMH (Cent. Addict. Ment. Health). 2021. Mental illness and addiction: facts and statistics. *Center* for Addiction and Mental Health. https://www.camh.ca/en/driving-change/the-crisis-is-real/mentalhealth-statistics
- Carleton RN, Korol S, Mason JE, Hozempa K, Anderson GS. et al. 2018. A longitudinal assessment of the road to mental readiness training among municipal police. *Cogn. Behav. Ther.* 47(6):508–28
- Clark SE, Goldney RD. 2000. The impact of suicide on relatives and friends. In *The International Handbook of Suicide and Attempted Suicide*, ed. K Hawton, K van Heeringen, pp. 467–86. Chichester, UK: Wiley
- Clement S, Schauman O, Graham T, Maggioni F, Evans-Lacko S, et al. 2015. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychol. Med.* 45(1):11–27
- Cohen S, Wills TA. 1985. Stress, social support, and the buffering hypothesis. Psychol. Bull. 98(2):310-57
- Crane MF, Searle BJ. 2016. Building resilience through exposure to stressors: the effects of challenges versus hindrances. *J. Occup. Health Psychol.* 21(4):468–79
- Crum AJ, Salovey P, Achor S. 2013. Rethinking stress: the role of mindsets in determining the stress response. *J. Pers. Soc. Psychol.* 104(4):716–33
- Day A, Randell KD. 2014. Building a foundation for psychologically healthy workplaces and well-being. In Workplace Well-Being: How to Build Psychologically Healthy Workplaces, ed. A Day, EK Kelloway, JJ Hurrell Jr., pp. 3–26. Chichester, UK: Wiley
- Deady M, Collins DAJ, Johnston DA, Glozier N, Calvo RA, et al. 2022. The impact of depression, anxiety and comorbidity on occupational outcomes. Occup. Med. 72(1):17–24
- de Graaf R, Tuithof M, van Dorsselaer S, ten Have M. 2012. Comparing the effects on work performance of mental and physical disorders. Soc. Psychiatry Psychiatr: Epidemiol. 47(11):1873–83
- Delphis. 2020. The mental health continuum is a better model for mental health. *Delphis*, June 30. https://delphis.org.uk/mental-health/continuum-mental-health/
- Dewa CS, Goering P, Lin E, Paterson M. 2002. Depression-related short-term disability in an employed population. *J. Occup. Environ. Med.* 44(7):628–33
- Dewa CS, Loong D, Bonato S. 2014. Work outcomes of sickness absence related to mental disorders: a systematic literature review. *BMJ Open* 4(7):e005533
- Dimoff JK, Kelloway EK. 2017. Resource utilization model: organizational leaders as resource facilitators. In Research in Occupational Stress and Wellbeing Volume 14: The Role of Leadership in Occupational Stress, ed. WA Gentry, C Clerkin, PL Perrewé, JRB Halbesleben, CC Rosen, pp. 141–60. London: Emerald
- Dimoff JK, Kelloway EK. 2018. Signs of struggle (SOS): the development and validation of a behavioural mental health checklist for the workplace. *Work Stress* 33(3):295–13
- Dimoff JK, Kelloway EK. 2019a. Mental health problems are management problems: exploring the critical role of managers in supporting employee mental health. Organ. Dyn. 48:105–12
- Dimoff JK, Kelloway EK. 2019b. With a little help from my boss: the impact of workplace mental health training on leader behaviors and employee resource utilization. *J. Occup. Health Psychol.* 24(1):4–19

- Dimoff JK, Kelloway EK, Burnstein MD. 2016. Mental health awareness training (MHAT): the development and evaluation of an intervention for workplace leaders. Int. J. Stress Manag. 23(2):167–89
- Dimoff JK, Kelloway EK, MacLellan AM. 2014. Health and performance: Science or advocacy? J. Organ. Eff. People Perform. 1(3):316–34
- Dimoff JK, Vogel WES, Yoder O. 2021. Mental health in the workplace: where we've been and where we're going. In A Research Agenda for Workplace Stress and Wellbeing, ed. EK Kelloway, C Cooper, pp. 137–56. Cheltenham, UK: Edward Elgar Publ.
- Dobson KS, Szeto A, Knaak S. 2019. The working mind: a meta-analysis of a workplace mental health and stigma reduction program. Can. J. Psychiatry 64(Suppl. 1):39S–47S
- Dozois DJ. 2020. Anxiety and depression in Canada during the COVID-19 pandemic: a national survey. Can. Psychol. 62(1):136–42
- Duval A, Biricik Gulseren D, Kelloway KE. 2020. Flexibility and invisible disabilities. In *Flexible Work:* Designing Our Healthier Future Lives, ed. SH Norgate, CL Cooper, pp. 167–80. Abingdon, UK: Routledge
- Eakin JM. 2005. The discourse of abuse in return to work: a hidden epidemic of suffering. In Occupational Health and Safety: International Influences and the "New" Epidemics, ed. CL Peterson, C Mayhew, pp. 159– 74. Amityville, NY: Baywood
- Ekeland AG, Bowes A, Flottorp S. 2010. Effectiveness of telemedicine: a systematic review of reviews. *Int. 7. Med. Inf.* 79(11):736–71
- Fabian ES, Waterworth A, Ripke B. 1993. Reasonable accommodations for workers with serious mental illness: type, frequency, and associated outcomes. *Psychosoc. Rehab.* 7. 17(2):163–72
- Fikretoglu D, Madeleine TD, Sullivan-Kwantes W, Richards K. 2017. Mental health and mental health service use attitudes among Canadian Armed Forces (CAF) recruits and officer cadets. Rep. DRDC-RDDC-2017-R027, Def. Res. Dev. Can., Ottawa, ON
- Follmer KB, Jones KS. 2018. Mental illness in the workplace: an interdisciplinary review and organizational research agenda. *J. Manag.* 44:325–51
- Franche RL, Cullen K, Clarke J, Irvin E, Sinclair S, et al. 2005. Workplace-based return-to-work interventions: a systematic review of the quantitative literature. *7. Occup. Rehabil.* 15:607–31
- Frone MR. 2004. Alcohol, drugs, and workplace safety outcomes: a view from a general model of employee substance use and productivity. In *The Psychology of Workplace Safety*, ed. J Barling, MR Frone, pp. 127–56. Washington, DC: Am. Psychol. Assoc.
- Gagné M, Deci EL. 2005. Self-determination theory and work motivation. J. Organ. Behav. 26(4):331-62
- Ganster DC, Rosen CC. 2013. Work stress and employee health: a multidisciplinary review. J. Manag. 39(5):1085-122
- Gayed A, Milligan-Saville JS, Nicholas J, Bryan BT, LaMontagne AD, et al. 2018. Effectiveness of training workplace managers to understand and support the mental health needs of employees: a systematic review and meta-analysis. *Occup. Environ. Med.* 75:462–70
- Gewurtz RE, Tompa E, Lysaght R, Kirsh B, Moll S, et al. 2018. A clear business case for hiring aspiring workers: findings from a research project that looked at the costs and benefits of recruiting and retaining people living with mental illness. Rep., Ment. Health Comm. Can., Ottawa, ON
- Gilbert S, Kelloway EK. 2014. Positive psychology and the healthy workplace. In Workplace Well-Being: How to Build Psychologically Healthy Workplaces, ed. A Day, EK Kelloway, JJ Hurrell Jr., pp. 50–71. Chichester, UK: Wiley
- Goffman E. 2009. Stigma: Notes on the Management of Spoiled Identity. New York: Simon & Schuster
- Greenberg L, Barling J. 1999. Predicting employee aggression against coworkers, subordinates and supervisors: the roles of person behaviors and perceived workplace factors. *J. Organ. Behav.* 20(6):897–913
- Haar J, Ghafoor A. 2021. Indigenous peoples' perspectives and wellbeing in organizational life. In *The SAGE Handbook of Organizational Wellbeing*, ed. T Wall, CL Cooper, P Brough, pp. 494–508. London: SAGE
- Hakanen JJ, Schaufeli WB, Ahola K. 2008. The Job Demands-Resources model: a three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work Stress* 22(3):224–41
- Hammer LB, Demsky CA, Kossek EE, Bray JW. 2016. Work-family intervention research. In *The Oxford Handbook of Work and Family*, ed. T Allen, LT Eby, pp. 349–61. Oxford, UK: Oxford Univ. Press
- Hargrave GE, Hiatt D, Alexander R, Shaffer IA. 2008. EAP treatment impact on presenteeism and absenteeism: implications for return on investment. *J. Workplace Behav. Health* 3(28):283–93

- Hastuti R, Timming AR. 2021. An inter-disciplinary review of the literature on mental illness disclosure in the workplace: implications for human resource management. Int. J. Hum. Resour. Manag. 32(15):3302–38
- Hendricks SM, Spijker J, Licht CM, Hardeveld F, de Graaf R, et al. 2015. Long-term work disability and absenteeism in anxiety and depressive disorders. *7. Affect. Disord.* 178:121–30
- Henssler J, Stock F, van Bohemen J, Walter H, Heinz A, Brandt L. 2021. Mental health effects of infection containment strategies: quarantine and isolation—a systematic review and meta-analysis. *Eur. Arch. Psychiatry Clin. Neurosci.* 271(2):223–34

Hobfoll SE. 1989. Conservation of resources: a new attempt at conceptualizing stress. Am. Psychol. 44:513-24

- Holman D, Axtell CM, Sprigg CA, Totterdell P, Wall TD. 2009. The mediating role of job characteristics in job redesign interventions: a serendipitous quasi-experiment. *J. Organ. Behav.* 31:84–105
- Holman D, Johnson S, O'Connor E. 2018. Stress management interventions: improving subjective psychological well-being in the workplace. In *Handbook of Well-Being* ed. E Diener, S Oishi, L Tay, pp. 754–66. Salt Lake City, UT: DEF Publ.
- Howard M, Krannitz M. 2017. A reanalysis of occupation and suicide: negative perceptions of the workplace linked to suicide attempts. J. Psychol. 151(8):767–88
- Hunsley J, Elliott K, Therrien Z. 2013. *The Efficacy and Effectiveness of Psychological Treatments*. Ottawa, ON: Can. Psychol. Assoc.
- Jones EE, Farina A, Hastorf AH, Markus H, Miller DT, Scott RA. 1984. Social Stigma: The Psychology of Marked Relationships. New York: W. H. Freeman Co.
- Jones-Chick R, Kelloway EK. 2021. Mental health in the workplace. In SAGE Handbook of Organizational Wellbeing, ed. T Wall, CL Cooper, P Brough, pp. 356–67. London: SAGE
- Joosen M, Arends I, Lugtenberg M, van Gestel H, Schaapveld B, et al. 2017. Barriers to and facilitators of return to work after sick leave in workers with common mental disorders: perspectives of workers, mental health professionals, occupational health professionals, general physicians and managers. Rep., Res. Comm., Inst. Occup. Saf. Health, Leicestershire, UK
- Kaiser CR, Major B, Jurcevic I, Dover TL, Brady LM, Shapiro JR. 2013. Presumed fair: ironic effects of organizational diversity structures. J. Pers. Soc. Psychol. 104(3):504–19

Kaiser Family Foundation. 2021. 2021 Employer Health Benefits Survey. Rep., Kaiser Fam. Found., San Francisco

- Karasek R. 1990. Lower health risk with increased job control among white collar workers. *J. Organ. Behav.* 11(3):171–85
- Kasper S, Den Boer JA, Sitsen JA. 2003. Handbook of Depression and Anxiety: A Biological Approach. London: Informa

Kelloway EK. 2017. Mental health in the workplace: towards evidence-based practice. Can. Psychol. 58(1):1-6

- Kelloway EK, Barling J. 2010. Leadership development as an intervention in occupational health psychology. Work & Stress 24:260–79
- Kelloway EK, Day AL. 2005. Building healthy organizations: what we know so far. Can. 7. Behav. Sci. 37:223-36
- Kelloway EK, Day A, Hurrell JJ. 2008. Workplace interventions for occupational stress. In *The Individual in the Changing Working Life*, ed. K Naswall, J Hellegren, M Sverke, pp. 419–41. Cambridge, UK: Cambridge Univ. Press
- Keyes CL. 2002. The mental health continuum: from languishing to flourishing in life. *J. Health Soc. Behav.* 43(2):207–22
- Kinchin I, Doran CM. 2017. The economic cost of suicide and non-fatal suicide behavior in the Australian workforce and the potential impact of a workplace suicide prevention strategy. *Int. J. Environ. Res. Public Health* 14(4):347
- Kinder A, Cooper CL. 2009. The costs of suicide and sudden death within an organization. *Death Stud.* 33(5):411–19
- Kinnunen U, Feldt T, Siltaloppi M, Sonnentag S. 2011. Job demands-resources model in the context of recovery: testing recovery experiences as mediators. Eur. J. Work Organ. Psychol. 20(6):805–32
- Kitchener BA, Jorm AF. 2002. Mental health first aid training for the public: evaluation of effects on knowledge, attitudes and helping behavior. *BMC Psychiatry* 2:10
- Kola L, Kohrt BA, Hanlon C, Naslund JA, Sikander S, et al. 2021. COVID-19 mental health impact and responses in low-income and middle-income countries: reimagining global mental health. *Lancet Psychiatry* 8(6):535–50

- Lamers SM, Westerhof GJ, Bohlmeijer ET, ten Klooster PM, Keyes CL. 2011. Evaluating the psychometric properties of the mental health continuum–short form (MHC-SF). *J. Clin. Psychol.* 67(1):99–110
- LaMontagne AD, Martin A, Page KM, Reavley NJ, Noblet AJ, et al. 2014. Workplace mental health: developing an integrated intervention approach. *BMC Psychiatry* 14(1):131
- Lazarus RS, Folkman S. 1984. Stress, Appraisal, and Coping. New York: Springer
- Lerner D, Adler DA, Rogers WH, Chang H, Lapitsky L, et al. 2010. Work performance of employees with depression: the impact of work stressors. *Am. J. Health Promot.* 24(3):205–13
- Macik-Frey M, Quick JC, Nelson DL. 2007. Advances in occupational health: from a stressful beginning to a positive future. J. Manag. 33(6):809–40
- Martin A, Sanderson K, Cocker F. 2009. Meta-analysis of the effects of health promotion intervention in the workplace on depression and anxiety symptoms. *Scand. J. Work Environ. Health* 35(1):7–18
- Maslach C, Jackson SE, Leiter MP. 1997. Maslach Burnout Inventory. In *Evaluating Stress: A Book of Resources*, ed. CP Zalaquett, RJ Wood, pp. 191–218. Scarecrow Educ. 3rd ed.
- McDowell C, Fossey E. 2015. Workplace accommodations for people with mental illness: a scoping review. *J. Occup. Rebabil.* 25(1):197–206
- Mellifont D, Smith-Merry J, Scanlan JN. 2016. Pitching a Yerkes–Dodson curve ball?: A study exploring enhanced workplace performance for individuals with anxiety disorders. J. Workplace Behav. Health 31(2):71–86
- MHCC (Ment. Health Comm. Can.). 2017. Case study research projects finding: the National Standard for Psychological Health and Safety in the Workplace 2014–2017. Rep., MHCC, Ottawa, ON
- Milligan-Saville JS, Tan L, Gayed A, Barnes C, Madan I, et al. 2017. Workplace mental health training for managers and its effect on sick leave in employees: a cluster randomized controlled trial. *Lancet Psychiatry* 4(11):850–58
- Moll SE, Patten S, Stuart H, MacDermid JC, Kirsh B. 2018. Beyond silence: a randomized, parallel-group trial exploring the impact of workplace mental health literacy training with healthcare employees. *Can. J. Psychiatry* 63(12):826–33
- NAMI (Natl. Alliance Ment. Illn.). 2019. Mental health by the numbers. *National Alliance on Mental Illness*. https://www.nami.org/learn-more/mental-health-by-the-numbers
- Nielsen K, Nielsen MB, Ogbonnaya C, Känsälä M, Saari E, Isaksson K. 2017. Workplace resources to improve both employee well-being and performance: a systematic review and meta-analysis. Work Stress 31(2):101–20
- Nielsen K, Yarker J, Munir F, Bültmann U. 2018. IGLOO: an integrated framework for sustainable return to work in workers with common mental disorders. *Work Stress* 32(4):400–17
- Nielsen KM, Axtell C, Sorenson G. 2021. Organizational interventions—fitting the intervention to the context to ensure the participatory process. In A Research Agenda for Workplace Stress and Wellbeing, ed. EK Kelloway, CL Cooper, pp. 191–210. Cheltenham, UK: Edward Elgar Publ.
- NIMH (Natl. Inst. Ment. Health). 2022. Mental illness. National Institute of Mental Health. https://www. nimh.nih.gov/health/statistics/mental-illness
- Oakie T, Smith NA, Dimoff JK, Kelloway EK. 2018. Coworker health awareness training: an evaluation. *J. Appl. Biobebav. Res.* 23(4):e12148
- Podsakoff NP, LePine JA, LePine MA. 2007. Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *J. Appl. Psychol.* 92(2):438–54
- Pratt LI, Barling J. 1987. Differentiating between daily events, acute, and chronic stressors: a framework and its implications. In *Occupational Stress: Issues and Developments in Research*, ed. JR Hurrell Jr., LR Murphy, SL Sauter, CL Cooper, pp. 41–53. London: Taylor & Francis
- Pyc LS, Meltzer DP, Liu C. 2017. Ineffective leadership and employees' negative outcomes: the mediating effect of anxiety and depression. *Int. J. Stress Manag.* 24(2):196–215
- Robertson IT, Cooper CL, Sarkar M, Curran T. 2015. Resilience training in the workplace from 2003 to 2014: a systematic review. *J. Occup. Organ. Psychol.* 88(3):533–62
- Ryan RM, Deci EL. 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am. Psychol.* 55(1):68–78

- SAMHSA (Subst. Abuse Ment. Health. Serv. Adm.). 2021. Key substance use and mental health indicators in the United States: results from the 2020 National Survey on Drug Use and Health. Rep. PEP21-07-01-003, SAMHSA, US Dep. Health Hum. Serv., Rockville, MD
- Sauter SL, Murphy LR, Hurrell JJ Jr. 1990. Prevention of work-related psychological disorders. Am. Psychol. 45:1146–53
- Schartz HA, Hendricks DJ, Blanck P. 2006. Workplace accommodations: evidence-based outcomes. Work 27(4):345-54
- Schur L, Nishii L, Adya M, Kruse D, Bruyère S, Blanck P. 2014. Accommodating employees with and without disabilities. *Hum. Resour. Manag.* 53(4):593–621
- Shirom A, Melamed S, Toker S, Berliner S, Shapira I. 2005. Burnout and health review: current knowledge and future research directions. Int. Rev. Ind. Organ. Psychol. 20(1):269–308
- Smith NA. 2019. Development and validation of the Workplace Mental Illness Stigma Scale (W-MISS). PhD Diss., Portland State Univ., Portland, OR
- Smith P, LaMontagne AD, Lilley R, Hogg-Johnson S, Sim M. 2020. Are there differences in the return to work process for work-related psychological and musculoskeletal injuries? A longitudinal path analysis. *Soc. Psychiatry Psychiatr: Epidemiol.* 55(8):1041–51
- Solovieva TI, Dowler DL, Walls RT. 2011. Employer benefits from making workplace accommodations. Disabil. Health J. 4(1):39–45
- Sparks K, Cooper CL. 1999. Occupational differences in the work-strain relationship: towards the use of situation-specific models. J. Occup. Organ. Psychol. 72(2):219–29
- Spector PE, Sanchez JI, Siu OL, Salgado J, Ma J. 2004. Eastern versus Western control beliefs at work: an investigation of secondary control, socioinstrumental control, and work locus of control in China and the US. *Appl. Psychol.* 53(1):38–60
- Sriram N, Mills J, Lang E, Dickson HK, Hamann HA, et al. 2015. Attitudes and stereotypes in lung cancer versus breast cancer. PLOS ONE 10(12):e0145715
- Steger MF, Dik BJ. 2010. Work as meaning: individual and organizational benefits of engaging in meaningful work. In Oxford Handbook of Positive Psychology and Work, ed. PA Linley, S Harrington, N Page, pp. 131–42. Oxford, UK: Oxford Univ. Press
- Steger MF, Dik BJ, Duffy RD. 2012. Measuring meaningful work: the Work and Meaning Inventory (WAMI). J. Career Assess. 20(3):322–37
- Subramaniam M, Lau JH, Abdin E, Vaingankar JA, Tan JJ, et al. 2021. Impact of unemployment on mental disorders, physical health and quality of life: findings from the Singapore mental health study. Ann. Acad. Med. Singap. 50:390–401
- Sun Life Financial. 2021. Designed for health: a focus on mental health disability claims. Rep., Sun Life Financ., Toronto, ON, Can.
- Tims M, Bakker AB, Derks D. 2012. Development and validation of the job crafting scale. J. Vocat. Behav. 80(1):173-86
- Topp CW, Østergaard SD, Søndergaard S, Bech P. 2015. The WHO-5 Well-Being Index: a systematic review of the literature. *Psychother: Psychosom.* 84(3):167–76
- Tsui A, Nifadkar S, Yi Ou A. 2007. Cross-national, cross-cultural organizational behavior research: advances, gaps, and recommendations. *J. Manag.* 33(3):426–78
- van Charante AWM, Mulder PG. 1990. Perceptual acuity and the risk of industrial accidents. Am. J. Epidemiol. 131(4):652–63
- Warr P. 1987. Work, Unemployment, and Mental Health. Oxford, UK: Oxford Univ. Press
- Weaver MD, Vetter C, Rajaratnam SM, O'Brien CS, Qadri S, et al. 2018. Sleep disorders, depression and anxiety are associated with adverse safety outcomes in healthcare workers: a prospective cohort study. *J. Sleep Res.* 27(6):e12722
- WHO (World Health Organ.). 2016. World Health Statistics 2016: Monitoring Health for the SDGs, Sustainable Development Goals. Geneva: WHO
- WHO (World Health Organ.). 2019a. Burn-out an "occupational phenomenon": International Classification of Diseases. World Health Organization, May 28. https://www.who.int/news/item/28-05-2019-burnout-an-occupational-phenomenon-international-classification-of-diseases

- WHO (World Health Organ.). 2019b. Mental health in the workplace: information sheet. *World Health Organization*. https://www.who.int/mental_health/in_the_workplace/en/
- WHO (World Health Organ.). 2022. Mental disorders. *World Health Organization*, June 8. https://www.who.int/news-room/fact-sheets/detail/mental-disorders
- Zafar N, Rotenberg M, Rudnick A. 2019. A systematic review of work accommodations for people with mental disorders. *Work* 64(3):461–75