EVIDENCE FOR SUPPORTING THE MENTAL HEALTH AND WELLNESS OF THE LABOR FORCE

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Executive Summary

During the past two decades, recognition of the link between labor force mental health and the economic health of companies and nations has been growing. In this brief report, we summarize evidence about the mental health of workers and how it can be addressed by the workplace. We begin by describing the economic consequences of mental illness on the workplace. We go on to discuss the research about work-related factors and findings regarding their association with the risk of mental illness. We highlight the roles of work accommodation and stigma in mental illness-related work disability prevention. Finally, we discuss examples of policy level interventions for mental health in the workplace by the United Kingdom, the World Health Organization, Canada, and the Netherlands.

Economic Consequences of Mental Illness on the Workplace

Mental illnesses affect workers, employers, and government. Research evidence shows that mental illnesses lead to decreased work ability impacting both workers and workplaces. The economic losses resulting from work absences and work disability leaves are substantial. But, the often unseen effects of presenteeism are even greater. Mental illnesses also affect the government through disability benefits and early retirement.

Work-related Factors Associated with the Risk of Mental Illness

For the past two decades, most research on the effects of workplace psychosocial factors (e.g., workload, deadlines) on worker health has been guided by the two complementary models: the Job Demand/Control/Social Support (JDCS) Model[1]and Effort Reward Imbalance (ERI) Model.[2] Research shows that high job demands, low autonomy, low co-worker and supervisor support, and a high degree of imbalance between work effort and rewards (e.g., job insecurity) have been found to predict depression, anxiety disorders, adjustment disorder and burnout.[3-5]

Work Accommodations and Stigma

When a worker experiences a mental illness, difficulties with work performance become more pronounced as the severity of symptoms increases.[6] There is evidence that accommodations can be effective at keeping workers at work.[7] However, compared with other workers, those experiencing depression, for example, are less likely to report receiving work accommodations.[8] This may be due in part to the fact that they do not recognize a need for help and consequently do not ask for it.[9] It may also be related to the fact that obtaining work accommodations requires communication and negotiation between managers and workers.[10]

Mental illness related stigma has been identified as a barrier to receiving help.[11,12] Fear of stigma may lead to a reluctance to disclose struggles with mental health to managers.[13] Yet, if they do not disclose their need for help, workers will not receive work accommodations that they may need to do their work.[14,15] Fear of stigma may also prevent workers from seeking treatment.[13]

However, studies show that through workplace training programs, it is possible to impact negative attitudes and behavior.[16-19] In addition, research studies have shown that the cost-savings resulting from stigma training can cover the costs of offering them.[20]

Using Legislative/Policy to Support Worker Mental Health

The United Kingdom Health and Safety Executive, the World Health Organization, and the Mental

Health Commission of Canada through the Standards Council of Canada published workplace standards and guidances. They share a number of commonalities: (1) all are based on the research literature with a focus on the JDCS and ERI, (2) all take a primary risk intervention approach focused on the workplace, (3) all recognize the need for buy-in within the company, representation, and collaboration of all stakeholders, (4) all are voluntary, (5) none provide cut-offs that define a "healthy workplace" but emphasize continuous quality improvement.

The UK standards used research to develop its risk assessment tool. The effectiveness of the risk assessments have begun to be evaluated and the results communicated in the peer-reviewed scientific literature. The Canadian standards are following a similar path. The evidence indicates that the UK and Canadian standards are being implemented and organizations have experienced success. At the same time, because they are voluntary, uptake has not been 100%. In addition, evidence for their effects on worker mental health is still in process. Among the gaps in the literature are the effects of the standards on vulnerable workers in non-traditional sectors.

None of these standards comments on the role of the healthcare system. The Dutch system is an example of how healthcare through occupational health is integrated into work disability prevention. The Dutch Gatekeeper Protocol legislation mandated roles for employers, employees, and occupational health physicians during a disability leave and created employer incentives for work disability prevention.[21]

The importance of the healthcare system and treatment is reflected in the best practices guidelines for mental illness-related disability leave from Canada, the United Kingdom, and Australia that identify access to mental health treatment as a mental illness related work disability leave best practice.[22] Furthermore, this recommendation is made in all these best practice guidelines despite the fact that all have forms of publically funded healthcare systems.

Conclusion

In this brief report, we summarize the evidence for the concern about the mental health of workers and how it is being addressed. It is a challenge faced by employers and workers around the globe. The research evidence describes the significant economic consequences of worker mental ill-health to the workplace. Research also has shown that the organization of work can contribute to the risk of mental illnesses. Three major standards and guidelines from the World Health Organization, the UK, and Canada have been developed based on this evidence. They can provide important lessons and building blocks as California develops its unique approach to promoting and supporting mental health of the State's workforce. As the home to the largest US economy, California can also be a leader by filling the research gaps in the US evidence base for mental health of workers.

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Introduction

During the past two decades, recognition of the link between the mental health of the labor force and the economic health of companies and nations has been growing. Countries around the world are searching for solutions to promote and protect the mental health of their workforces.

In the early 2000s, European Ministers of Health endorsed a detailed action plan calling for employers to "create healthy workplaces by introducing measures such as exercise, changes to work patterns, sensible hours and healthy management styles" and also to "include mental health in programs dealing with occupational health and safety".[23] In 2008, the European Union's Pact for Mental Health and Wellbeing identified the improvement of mental health in the workplace as one of its four objectives for action.[24]

In 2006, the Canadian Standing Senate Committee on Social Affairs, Science and Technology[25] raised prevention, promotion and treatment of mental illness as critical issues to be addressed. The Committee identified the workplace as one of the prime areas in which to begin. They asserted, "It is in the workplace that the human and economic dimensions of mental health and mental illness come together most evidently." In 2013, commissioned by the Mental Health Commission of Canada, the Standards Council of Canada published the national standard, *Psychological Health and Safety in the Workplace*.[26]

In 2018, California Senate Bill 1113 authorized the establishment of a framework and voluntary standard for mental health in the workplace to "reduce mental health stigma, increase public, employee, and employer awareness of the recovery goals of the Mental Health Services Act, and provide guidance to California's employer community to put in place strategies and programs, determined by the commission, to support the mental health and wellness of employees."

In this brief report, we summarize the evidence for the concern about the mental health of workers and how it is being addressed. We include actual cases to illustrate how the concepts could be experienced in the workplace. In Section 1, we begin by describing the economic burden of mental illness in the working and working-aged population. In Section 2, we go on to discuss the research about work-related psychosocial factors and findings regarding their association with the risk of mental illness. In Section 3, we highlight the roles of work accommodations and stigma in mental illness-related disability prevention. In Section 4, we discuss examples of how mental health in the workplace at a policy level by the United Kingdom, the World Health Organization, Canada, and the Netherlands.

Section 1. The Economic Consequences of Mental Illness in the Workplace

In 2010, mental illnesses were identified as the leading causes of disability worldwide.[27] Between 1990 and 2010, the global burden of mental illnesses increased by 38%.[27] Among mental illnesses, depressive disorders account for the largest proportion of disability with anxiety disorders accounting for the second largest proportion.[27]

In the US, major depression is the second leading cause of disability and has maintained this distinction since 1990.[28] In California, major depression was ranked the third leading cause of disability.[28] Based on 2017 estimates, about 17% of US working aged adults between 26-49 years have a mental illness during the year.[29] About 6% of US adults 26-49 years experience a serious mental illness that interferes with daily functioning at either work, home, or school.[29] In 2017, about 8% of US adults between 26-49 years had a major depressive episode. In addition, 5% had a serious major depressive episode in which they experienced impairment.[29]

Contributors to the Economic Consequences Related to Mental Illnesses

By 2030, estimates project that among high income countries such as the US, the economic consequences of mental illnesses will be at least $6 trillion (in 2010 US$).[30] A recent systematic review of literature on the costs of work-related stress in various countries, found work-related stress was related to costs ranging from US$221.13 million to $187 billion.[31] The economic consequences of mental illnesses is driven by losses related to productivity resulting from disability and mortality.[30]

Healthcare Costs. In the US, the annual estimated economic consequences of major depressive disorders totaled $210.5 billion (in 2012 dollars).[32] Approximately 34% of this was attributed to use of medical services.[32] The total excess costs of health services use for adults with depression compared to those without depression was estimated to be three times greater.[33]

Productivity Losses. Decreased work productivity is manifested through work absences, reduced production by workers who are at work, work disability leave, and early retirement.[34] About 48% of the estimated economic losses due to depression was ascribed to workplace costs in the form of work absences (11%) and decreased productivity at work (37%).[32] The excess costs due to reduced productivity was two to three times higher for adults with depression.[33]

Work Absences. Workplace productivity losses due to mental illness related work absences (i.e., sick days) are substantial. For example, depression has been shown to be associated with more work-loss and work cutback days than most chronic medical conditions.[35-38] The average depression-related absenteeism productivity loss is about one hour/week, equivalent to $8.3 billion (USD).[39]

Presenteeism. Presenteeism is another source of work productivity losses. It is defined as showing up to work but working with impaired functioning. Presenteeism days represent a significant proportion of the work-related burden of mental illnesses.[36,40-42] Presenteeism producivity losses associated with depression are estimated to be between 5 to 10 times greater than those for absenteeism.[43]

Presenteeism related losses are due to the fact that mental illnesses can interfere with day-to-day functioning.[44] For example, depression interferes with performance of physical jobs demands an average of 20% of the time and mental inter-personal demands an average of 35% of the time.[45] In addition, workers with versus those without depression can experience more impairment with time management.[46]

Case 1. Effects on productivity

Kevin works in a large manufacturing plant. Recently, Kevin's father was diagnosed with cancer. His free time is spent caring for his father. Kevin's partner is left to care for their two young children. While she tries to be supportive, Kevin sees how the extra burden is taking a toll on her. Kevin has been unable to fall asleep and ruminates about his life situation. His anxiety and stress makes it difficult for him to concentrate. This has led to mistakes – something that is unusual for him. He feels bad about the mistakes and becomes distracted by them. In addition, his company adopted a new 24 hour a day production cycle and his shift schedule has changed. This disrupts his usual sleep patterns and he is becoming more fatigued. At work, he finds that he cannot work as efficiently as usual and is dreading the large looming upcoming deadline that the plant faces.

In Case 1, Kevin's story illustrates how productivity losses could be experienced in the workplace. Kevin works a manufacturing plant. As a consequence of changes in the production processes in his plant, work becomes more demanding for him. The combination of life events and increased work demands makes

Kevin feel more anxious, exhausted, and stressed. Afraid of overtaxing his partner, he feels that he should not rely on his most important source of support. This leads to difficulties working. He cannot focus on the work at hand which in turn, causes him to make mistakes. As he struggles, his productivity declines.

Disability Leave. In contrast to work absences, disability leaves can be defined as an absence from work for a non-work related illness or injury that extends beyond what would be covered by "sick leave". Generally, it is an absence for which a worker must file an insurance claim for income replacement benefits which are often called disability benefits. These benefits may be either publicly or privately sponsored. California offers state-sponsored insurance through the California Sate Disability Insurance (SDI) program. Employers may also offer short-term disability benefits.

Mental ill-health, defined as depression, anxiety, or emotional problems, are one of the top three most reported causes of work disability in US adults.[47] A study using short-term disability claims data from a sample of 260 US medium and large employers found that mental illnesses as defined as a mood or anxiety disorders, were the third leading causes of short-term disability leaves.[48]

The cost of short-term disability claims is associated with three factors: (1) the per diem cost of the leave, (2) the length of the leave and (3) the number of disability leaves. The cost of a single disability leave is driven by the first two factors. Relative to other types of disability leaves, depression-related leaves are longer than those for other types of disorders such as rheumatoid arthritis, heart disease, and diabetes.[49-52] Compared with the costs of the average disability episode, those for mental/behavioural disorders can be double the cost per episode.[53]

The third factor contributing to the total costs of disability leaves is the number of leaves. This is reflected in part to the recurrence of a disorder. Workers who have previously been on a disability leave are more likely to have a future leave.[54-56] Compared to workers with no history of a disability leave, those who had one related to a mental disorder are seven times more likely to have another leave and those with leaves for other types of disorders were twice as likely.[56] Relative to other disorders, workers with a leave for depression were more likely to have another leave.[52,57] High relapse rates has been identified as one of the main factors that contributes to the magnitude of the burden of depression.[58]

Early Retirement. An association between mental illness and early retirement also has been observed (e.g., [59-61]). Workers with poor mental health functioning are more likely to plan early retirement.[61-63] A study of US workers between 53 and 58 years old found that active depression significantly increased the risk of early retirement in both men and women.[64] Similar patterns were observed with older workers more likely to retire or to terminate their employments rather than return to work after a depression-related short-term disability.[65]

Summary. Mental illnesses affect workers, employers, and government. Research evidence shows that mental illnesses that decreased work ability impact both workers and workplaces. The economic consequences of work absences and work disability leaves are substantial. But, the often unseen effects of presenteeism are even greater. Mental illnesses also affect the government and employers through disability benefits and early retirement. As the workforce ages and there are fewer young workers to replace those retiring, more is drawn from pension plans than contributed to them. In the absence of new additions to the labor pool, the remaining workforce will have to pay higher premiums and work for a longer time period to sustain the pension system.

Section 2. How the Work Environment Impacts Mental Health

Psychosocial factors

Workplaces can play an important role in mental health. Work can give individuals purpose, financial resources, and a source of identity; these have been shown to promote positive mental well-being.[66] Conversely, poor working conditions and organizational issues can contribute to the development of mental ill-health.[5]

There is a complex relationship among factors that contribute to mental illness. For example, the most advanced etiological models of adult depression include risk factors related to genetic vulnerability, developmental and neurobiological factors as well as childhood experiences, life events, chronic situations (e.g., work environments), and the presence of other disorders.[67] However, the magnitude of the contribution of each of these types of risk factors to depression and how they interact with one another is not well understood. Thus, it is difficult to definitively determine whether a mental illness was caused by occupational conditions.[68] But, research findings have established that the workplace plays an important role in mental health.[4,5,69] This role is critical to promoting and protecting worker mental health.

The Sherbrooke Model. Using a tetrahedron, Loisel and colleagues'[70] conceptualized the systems that contribute to workers' health in the Sherbrooke Model. The Sherbrooke Model describes workers as being supported by four systems: (1) workplace, (2) personal/personal coping, (3) healthcare, and (4) legislative/policy systems. The workplace system defines the conditions and environment in which work is done. Its components include job content (e.g., workload, deadlines), culture, and organizational policies. It is also important to note that to support workers effectively, the systems must work in concert.[71] Thus, although this report primarily focuses on the workplace system as it impacts the mental health of workers, it also highlights how the other three systems can work with the workplace system.

Relationship between Job Content and Mental Illness. During the past two decades, there has been a substantial growth in the body of research on the psychosocial work factors that can be modified and redesigned to promote worker health. Much of this work has been guided by Karasek and Theorell's[1] Job Demand/Control/Social Support (JDCS) Model and Siegrist's[2] Effort Reward Imbalance (ERI) Model. The two models are complementary[72] and describe the job characteristics that lead to job strain (i.e., experience of job stress). The JDCS model[1] proposes four job types based on the job's degree of psychological demands (e.g., workload, work pressure) and decision latitude (e.g., control over work tasks, the variety of work, and opportunity for skill use): (1) "high-strain" jobs with low decision latitude and high job demands, (2) "low-strain" jobs with high decision latitude and low job demands, (3) "passive" jobs with low decision latitude and low job demands, and (4) "active" jobs with low decision latitude and high job demands. Job demands, decision latitude, and social support from colleagues and supervisors affect the emotional, psychological, and physical strain that workers experience as a result of work.[1] The ERI model[2] adds that a mismatch between the amount of effort that workers invest in their jobs and the amount of reward (financial, status-related, and socio-emotional rewards) receive also affects the amount of work stress experienced.[72] Jobs with a high degree of demand and little decision latitude as well as those that involve a high degree of effort but offer little reward and job security create unhealthy work situations. They also create a risk for mood (e.g., depression) and anxiety disorders (e.g., depression).[3,4]

Case 2. DCS and ERI Models in the Workplace

For the past 10 years, Derek has worked in the finance department of a large organization. He has always been hard-working. He pays keen attention to details and the accuracy of his work is highly valued. His supervisor appreciates the quality of his work. Six months ago, he offered Derek a promotion to become his department's team leader. Since accepting the promotion, Derek's workload has increased substantially and he is responsible for his team meeting department deadlines. In the past, he let off steam by venting to his colleagues. But, the promotion changed things. Now, most of his former peers are distant. Two of them seem to openly challenge his every decision and are not as productive as the job requires. So, Derek works to fill the gap. He tried to get advice from his own supervisor about how to deal with this. But, his supervisor suggested to be patient; things would eventually settle down. Meanwhile, Derek is feeling increasingly anxious and dispirited. His productivity has taken a downturn; he is having difficulty concentrating and is making mistakes. As a result, he is beginning to question his competence as a supervisor and wondering whether he will be fired.

In Case 2, Derek's experiences reflect how the JDCS and ERI models can be used to explain how job content and social support can affect health. Derek is a model employee; this leads to a work promotion. His promotion creates greater job demands. At the same time, he loses some of his autonomy. In the past, he was responsible for his only own performance. Now, he must answer for his team's production as well. He must depend on them to do their work. But, they do not respect him. To make it worse, he no longer has a support network at work. This takes a toll on his mental health. He becomes increasingly anxious and despondent due to his increased workload, his team's decreased productivity, his alienation from his staff, and he is beginning to doubt himself. He is does not feel supported by his manager. Although he is working diligently, his effort is not reflected in his output. He fears for his job.

Evidence for the Effects of Job Content on Mental Health. Since Karasek and Theorell[1] and Siegrist[2] introduced their models, a large and expanding body of research has found links among job content, job strain, and mental ill health.[4,5,69] High job demands, low decision latitude, low co-worker and supervisor support, and high degree of imbalance between work effort and rewards have been found to predict stress-related disorders (e.g., adjustment disorder and burnout).[5] Furthermore, there is high-medium quality evidence that supports the association between job strain and depression.[4]

The research evidence also indicates that decision latitude can buffer against the negative effects of high job demands when there is a match between job demands and decision latitude.[69] For example, when high job demand is related to time pressure or workload and decision latitude involves control of the timing, scheduling, or pacing of work, there is a greater likelihood of decision latitude having a significant buffering effect against work demands. There also is evidence that too much decision latitude can negatively impact worker well-being when job demands are high with respect to time pressure and job complexity.[73]

Contribution of the Personal/Coping System to Worker Mental Health

Along with job content, the revised Job Demand Resources (JDR) model[74] incorporates the system that the Sherbrooke Model[70] conceptualizes as the personal/personal coping system. The JDR model considers the role of worker personal resources and suggests these resources can modify the effects of job demands.[74]

Working Hours and Need for Recovery. For example, jobs that do not have well-defined working hours may impinge on home life. If the boundaries between work and home hours are not well-defined, work characteristics such as hours worked, job authority, and non-routine work are associated with increased work-to-home conflict.[75] In turn, increased work-to-home conflict can increase psychological distress among workers.[76]

Long working hours are associated with depression in women.[77] Jobs requiring variable hours are associated with high work stress.[3,78,79] Female shift workers are more likely to have symptoms of depression than females who are not shift workers.[78]

Recognizing that there may be limited opportunity to rest from responsibilities at work, outside of work, or both, there has been increasing interest in the effects of accumulated work-induced fatigue or need for recovery from work (NFR). NFR has been shown to be sensitive to changes in the working environment such that challenging working conditions are associated with higher NFR.[80,81] In turn, high NFR is predictive of chronic physiological stress reactions in workers[82] and prolonged fatigue[80]. There is also evidence that NFR is associated with depression.[83-85]

Work Engagement. The JDR also suggests the degree of work engagement can impact a worker's well-being.[86] Indeed, it has been suggested that some of the differences in the effect of job characteristics could also be influenced by commitment to the organization.[87]

Section 3. Work Accommodations and Stigma

When a worker experiences a mental illness, as the severity of symptoms increases, difficulties with work performance become more pronounced.[6] For example, depression has been characterized by symptoms that include difficulty concentrating, fatigue, and disrupted sleep.[45] As the severity of these symptoms grows, so too do difficulties with managing time, completing tasks, and interacting with people at work.[6] Eventually, the gradual decrease in work productivity attracts the attention of managers and supervisors. However, the decreased productivity may be misinterpreted. Rather than seeing it as signs that a worker needs help and requires support, it may be addressed with disciplinary action. Thus, there is a missed opportunity to offer work modifications or accommodations to support workers to be productive while they struggle with their symptoms of depression.

Work Accommodations

Effective work accommodations match the worker and the job[10]. Work accommodations involve modifications to duties and assignments that enable a worker with a mental illness to fulfill their job requirements.[10,88] There is evidence that accommodations can be effective at keeping workers at work.[7] However, compared to other workers, those experiencing depression, for example, are less likely to report receiving work accommodations.[8] This may be due in part to the fact that they do not recognize the need for help and consequently do not ask for it.[20] It may also be related to the fact that obtaining work accommodations requires communication and negotiation between managers and workers.[10] Often, it is not clear how to begin the conversation and the support for which to ask. There is little in the literature that identifies effective accommodations for either mental illnesses or depression in particular.[89]

Part of the challenge of identifying effective work accommodations is related to the fact that workers can experience depression in a variety of ways.[89] Although determining the presence of depression relies on assessing whether a person is experiencing a summary number and severity of symptoms, each

person with depression may experience the individual symptoms that define depression in a variety of ways. This suggests that rather than focusing on diagnoses, it is more important to understand underlying symptoms.[90] If there are different combinations of symptoms affecting functioning, there could be a variety of solutions. Rather than a single definitively effective way to accommodate workers with depression, they may be many. Thus, the communication between the worker and the manager is critical to the accommodation process.

Case 3. Work Accommodations and Stigma

Aimee has worked with her organization for three years and has been promoted twice during that time. She is known as someone who is always happy. People routinely comment on her enthusiasm, positivity, and sense of humor. She is a good, reliable performer who is detailed-oriented. She has a natural passion for her job. Six months ago, Aimee told her manager and her co-workers that she was getting a divorce. In the past two months, her enthusiasm is feeling more forced. During this time, she begins to be less solicitous and keeps to herself a bit more. She smiles but avoids eye contact. Her work performance begins to decline. It begins with errors involving small details and escalates to significant mistakes. Co-workers begin to complain. Her manager is hesitant to talk with her for fear of upsetting her.

In Case 3, Aimee is struggling at her job. She is known as a positive and helpful person. Her behavior changes. But, everyone is fearful of asking how she is doing. So, she struggles in silence. Aimee does not ask for help and her manager does not know how to begin the conversation for fear of upsetting her. Aimee is afraid to share her struggles because she fears people within her department would treat her differently and view her as incompetent. She also thinks she could lose her position and if anyone knew about her bipolar disorder that was exacerbated through her divorce, it would go in her personnel file. As a result, no one talks about what is happening. Eventually, the organization's human resources (HR) will be called; through several meetings with HR, a disciplinary process will be initiated. Lack of communication prevented work accommodations. Fear of stigma prevented the communication.

Mental Illness-Related Stigma

Mental illness related stigma has been identified as a barrier to receiving help.[11,12] Stigma is comprised of three elements: (1) lack of mental health literacy (i.e., ignorance or lack of knowledge about mental illness), (2) negative attitudes (i.e., prejudice), and (3) negative behaviors (i.e., discrimination).[91] Negative attitudes (i.e., prejudice) are a major component of stigma.[91] Prejudice can turn into discrimination.

Often, negative attitudes are rooted in fear. For example, among the general public, there is fear that mental illness leads to violence.[92] There is also the belief mental illness leads to undesirable behavior or unpredictability.[92,93] These same fears exist in the workplace.[94,95] There is fear that workers with mental illnesses are less reliable and cause additional work for co-workers.[13,95-97] Indeed, managers are often concerned about how the employees with mental health issues will be treated by co-workers.[94,95]

Thus, it may not be coincidental that workers experiencing mental illnesses fear prejudice and discrimination.[98] The fear may lead to a reluctance to disclose their struggles with their mental health to their managers.[13] Yet, if they do not disclose their need for help, workers will not receive work accommodations that they may need to do their work.[14,15] Fear may also prevent workers from seeking treatment.[13] Yet, there is evidence that early treatment can be effective in decreasing disability.[65]

Workers with mental health issues can also struggle with self-stigma that can take the form of negative value judgments about oneself.[99,100] Because of the potential self-stigma, workers do not want to view themselves as either needing help or having difficulty performing because of mental illness.[101]

Facilitators to Help Seeking. Although there are barriers that prevent help seeking, there are also facilitators at work that support it. Managers and supervisors play an important role in a workers decision to seek help.[13,14,102] The decision to disclose the need for help is related to a positive relationship with the manager.[13,103] Feelings of responsibility to their workplaces is another significant motivator.[13] This may also reflect a perceived alliance with managers. Safe and secure work environments promote the decision to seek help.

Studies show that through training programs, it is possible to impact leaders' attitudes and behavior about promoting mental health and reducing mental health stigma.[16-18] There is also evidence that training both managers and their employees can reduce negative attitudes.[19] In addition, research studies have shown that the cost-savings resulting from stigma training can cover the costs of offering them.[20]

Section 4. Using Legislative/Policy Systems to Support Worker Mental Health

The United Kingdom (UK) Health and Safety Executive (HSE), the World Health Organization (WHO), and the Mental Health Commission of Canada (MHCC) through the Standards Council of Canada published workplace standards and guidances. These are examples of how the legislative/policy system can guide the workplace system to promote mental health and prevent mental illness. They share a number of commonalities. First, all are based on the research literature with a focus on the JDCS and ERI. Second, all take a primary risk intervention approach focused on the workplace. Third, all are voluntary. Fourth, none of them provide cut-offs that define a "healthy workplace". Rather, they emphasize continuous quality improvement. With this, they recognize the variability in workplace systems. Fifth, all recognize the need for buy-in within the company as well as representation and collaboration of all stakeholders.

None of these standards comments on the role of the healthcare system. The Dutch system is an example of how healthcare through occupational health physicians is integrated into workplace work disability prevention. In addition, through the Dutch Gatekeeper Protocol legislation, employers became responsible for employee sick-leave for up to two years regardless of cause.[21]

The importance of the healthcare system and treatment is reflected in the best practices guidelines for mental illness-related disability leave from Canada, the United Kingdom, and Australia that identify access to mental health treatment as a best practice.[22] Furthermore, this recommendation is made in all these best practice guidelines despite the fact that all have forms of publically funded healthcare systems.

The UK Health and Safety Executive Management Standards

In 2004, the UK HSE introduced the *Management Standards* to assist organizations to better identify, monitor, evaluate, and manage risks for undue stress in the workplace. The HSE is a government agency charged with regulating and enforcing workplace health, safety, and welfare standards. HSE reports to the Department for Work and Pensions.

The *Management Standards* are not legally enforceable.[104] Rather, they were developed to assist employers in complying with their duty to mitigate risk of health and safety hazards. With this, work-related stress was identified as a health and safety hazard and appropriate for a primary prevention

focus. The *Management Standards* are based on strong research evidence that indicates work-related stress is related to ill health and that it can be assessed and managed by organizations.[105] In addition, it was imbedded in the HSE work-stress priority program.[104] This has been identified as one of its strengths.[106]

The *Management Standards* for work-related stress focus on risk assessment for six areas: (1) demand, (2) control, (3) support, (4) relationships, (5) role, and (6) change (Appendix Table 1). These areas emphasize the design, organization, and management of work and are intended for all organizations.[104] The guidance provides the standard for management practice, "desired states", and ways to achieve the standard for each of the six areas.[107] Based on employer recommendations, the *Management Standards* are short, succinct, sufficiently comprehensive to address work-related stress, and clearly written in plain language.[105]

The HSE recognized the implementation process used for the *Management Standards* was critical to their uptake.[104] The framework that HSE describes is based on their five step risk assessment for health and safety hazards: (1) look for the hazard; (2) decide who might be harmed and how; (3) evaluate the risks and decide on precautions; (4) record significant findings; (5) review the assessment and update if necessary.[108] This approach has been identified as another strength because it recognizes that psychosocial risk factors can be assessed and with that knowledge, the work environment can be modified.[106]

The HSE risk assessment process for work-related stress was piloted by 22 organizations.[105] The HSE developed a workbook called, *Tackling Work-Related Stress Using the Management Standards Approach*.[107] It explains how to prepare the organization for the risk assessment, identify the risk factors, and address the concerns. There is an emphasis on continual quality improvement to achieve the *Management Standards*' "desired states".[105] Thus, "adopting the methodology of the *Management Standards* will normally mean that the organization is doing enough to comply with the Health and Safety law."[105] The workbook also contains suggestions about reviewing organizational policies, communication, and building a business case.

The introduction of the *Management Standards* necessitated the development of a risk assessment tool. After a series of pilot studies and psychometric testing, the HSE offers a 35-item questionnaire that can be used in the risk assessment.[105,109] There is evidence that the dimensions captured by the HSE risk assessment tool are associated with job satisfaction.[110,111] A study of call center employees also suggested that the HSE risk assessment tool results are associated with mental health status.[112] However, a caution has been raised about using the assessment in different cultures.[109]

Despite having the HSE *Management Standards*, in 2017, the UK Prime Minister commissioned an independent review to explore "how employers can better support all individuals currently in employment including those with mental ill health or poor well-being to remain in and thrive through work"[113] The result was, *Thriving at Work* that lays out a framework of "mental health core standards" for every workplace to achieve.[113] The core standards are:

- Produce, implement and communicate a mental health at work plan;
- Develop mental health awareness among employees;
- Encourage open conversations about mental health and the support available when employees are struggling;
- Provide employees with good working conditions and ensure they have a health work life balance and opportunities for development;

- Promote effective people manage through line managers and supervisors;
- Routinely monitor employee mental health and wellbeing.[113]

Furthermore, one of the review's recommendations was that the HSE "revise its guidance to raise employer awareness of their duty to assess and manage work-related mental ill-health"[113] The focus on risk assessment distracts attention from the actual mental health of workers within the organization. The recommendation suggests that employers should not only focus on the cause of mental ill health. Rather, the risk management alone, the objective should include the support of the mental health of all workers.

The World Health Organization PRIMA-EF Guidance

In 2008, WHO published the *PRIMA-EF Guidance on the European Framework for Psychosocial Risk Management A Resource for Employers and Work Representatives.*[114] Its purpose is to offer best practice guidelines in workplace psychosocial risk management.[114] The guidance identifies three levels of risk prevention:

1. *Primary prevention* includes changes to the way work is organized and managed
2. *Secondary prevention* includes approaches that develop individual skills through training
3. *Tertiary prevention* includes approaches to reduce the impact on workers' health by developing rehabilitative, return-to-work systems and occupational health processes

This guidance focuses on primary prevention activities.

Risk assessment is identified as the foundation for the risk management process. The guidance uses the European Commission's[115] definition of risk assessment as "a systematic evaluation of the work undertaken to consider what could cause injury or harm, whether the hazards could be eliminated, and if not what preventive or protective measures are, or should be, in place to control the risks." It identifies five elements of psychosocial risk management as: (1) best practices in organizational management; (2) a continuous process that is a part of normal business operations; (3) ownership by all stakeholders; (4) contextualization and tailoring to the organization in terms of workforce demographics, occupational sector, and size; and (5) evidence-informed practice. It identifies 10 areas to assess for psychosocial hazards: (1) job content; (2) workload and work pace; (3) work schedule; (4) control; (5) environment and equipment; (6) organizational culture and function; (7) interpersonal work relationships; (8) organizational role; (9) career development; and (10) home-work interface (Appendix Table 2).

The Psychological Health and Safety in the Workplace Canadian Standard

In 2007, the Canadian federal government created the MHCC. In 2013, commissioned by the MHCC, the Standards Council of Canada published the national standard, *Psychological Health and Safety in the Workplace*.[26] The objective of the Canadian standard is to specify "requirements for a documented and systematic approach to develop and sustain a psychologically healthy and safe workplace… This Standard provides a framework to create and continually improve a psychologically healthy and safe workplace." It uses the WHO's definition of mental health to define "psychological health" such that

> *mental health* is a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.[116]

It defines *psychological safety* as the absence of harm and/or threat of harm to mental well-being. The Canadian standard identifies 13 workplace factors that organizations can address to affect the mental health and psychological safety of its employees. They are: (1) organizational culture, (2) psychological

and social support, (3) clear leadership and expectations, (4) civility and respect, (5) psychological demands, (6) growth and development, (7) recognition and reward, (8) involvement and influence, (9) workload management, (10) engagement, (11) balance, (12) psychological protection, and (13) protection of physical safety (Appendix: Table 3).

Between February 2015 and January 2017, 19,172 companies were selected to participate in a survey about knowledge and use of the *Standard*.[117] Of the 1,010 responding companies, 17% indicated they were aware of the *Standard*.[117] This reflected earlier findings that there was limited understanding of the *Standard* with suggestions that they should be better communicated.[117,118] Companies that employed more than 500 people and who were in the government and public administration sector were more likely to be aware of the *Standard*.[117] Those who adopted it identified its greatest benefit as increased job satisfaction and employee retention.

About 2% of the responding organizations had implemented the *Standard* in full and 20% had partially implemented it.[117] Not-for-profit organizations were more likely to have adopted it.[117] The identified adoption barriers were inadequate resources, not relevant to their enterprise, and insufficient knowledge to implement it.[117,119] Employers suggested that the *Standard* might be difficult for small organizations or those that hire staff on short-term contracts.[118] Although organizations saw the value of the *Standard*'s content, they expressed concern with the complexity of integrating the *Standard* into their organizations and getting the requisite leadership buy-in and culture change.[118] There was also concern that the *Standard* could increase the number of disability claims.[119]

The MHCC conducted a three year case study examination of the *Standard* that focused on compliance with five elements for a psychological health and safety management system: (1) commitment, leadership, and participation; (2) planning; (3) implementation; (4) evaluation and corrective action; and (5) management review.[120] The case study looked at 40 organizations that implemented the *Standard*. It found that compliance with these five elements varied between 40-66% depending on the element; the lowest compliance was related to evaluation and corrective action (40%) and management review (42%). At the final implementation, compliance for evaluation and corrective action rose to 58% and management review to 59%.

The Netherlands' Gatekeeper Improvement Act

In the Netherlands, employers and employees share a joint responsibility for safe and healthy work.[121] The Dutch system has been described as a consultative economy in which decisions and policies are based on discussions, negotiations, and bargaining amongst trade associations representing employer groups, trade unions representing employee groups, and government.[122]

Occupational healthcare is paid by employers. It is provided in a system that is separate from the healthcare system which is a universal social health insurance program that covers all Dutch citizens. Employers can choose to engage a broad range of occupational health service providers but are obliged by law to work with experts on working conditions including: occupational physicians, occupational hygienists, safety specialists, as well as work and organization experts. In turn, these experts must work together to reach agreement about working conditions.

In 2002, the *Gatekeeper Improvement Act* was passed mandating roles for employers, employees, and occupational health physicians during a disability leave.[122] The *Gatekeeper Protocol* gives Dutch employers an incentive to be proactive in disability prevention.[21] A key feature of Dutch disability management is the mandated analysis of both medical and social problems underlying a sick leave by an occupational physician after a maximum of six weeks. Within eight weeks, based on the occupational

physician's analysis, the employer is mandated to draw up an action plan in collaboration with the worker. After this, a case manager which can be the occupational physician, is responsible for rehabilitation counseling to support the worker returning to work.

Overall, the *Dutch Gaterkeeper Protocol* decreased disability leave rates by about 40%.[123] The *Dutch Gatekeeper Protocol* had differential effects depending on the business sector and the company size.[123] This may be related to different resources available to invest in observing the legislation.[123,124] In addition, there is heterogeneity between and within Dutch organizations in how disability policies are interpreted and implemented.[124] The flexibility of the Dutch legislation allows organizations to be responsive to the individual needs of workers. At the same time, this can lead to inconsistently implemented policies.[124]

Case 4. A Dutch Example

Jane is a senior consultant at a large consulting firm. She is a high performer and a valued employee. For years, she has been able to successfully manage a heavy workload. She also unofficially mentors new and younger staff. Lately, she has been struggling with feelings of being overwhelmed. She talks with her employer and asks for a lighter workload. Her employer agrees to her request. But within weeks, she calls in sick. Her mental health seems to deteriorate quickly and she is diagnosed with severe depression with psychotic features. She takes a disability leave from work. A period of intensive treatment follows. Her manager keeps in touch with her during this time with a mutually agreed upon schedule of regular phone calls. The purpose of the calls is to keep her connected and feeling that she still belongs. As she improves, her occupational physician helps her and her manager to draw up a return to work plan. Her occupational physician advises her how to carefully build up her workload. She starts with modified work for 3-4 hours a day. She begins working on tasks with no deadlines and that do not require contact with clients. Eventually, she fully recovers and works full-time. The occupational physician never disclosed the medical information to the employer. But, she explained the severity of the condition and what was needed. The employer accepted the information and worked with Jane throughout the process.

Case 4 is an example of what happens to a worker experiencing mental illness in the Dutch system. The approach is grounded in cooperation. The manager's support is recognized and accepted as important to recovery. It is also accepted that the successful recovery is a collaborative process that can involve the healthcare providers.

Summary. The UK, WHO, and Canadian workplace standards all use the research literature as a foundation. They were developed in cooperation with all stakeholder groups including employers, labor, and government with the support of research. The UK standards used research to develop its risk assessment tool. The effectiveness of the risk assessments have begun to be evaluated and the results communicated in the peer-reviewed scientific literature. The Canadian standards are following a similar path. The evidence indicates that the UK and Canadian standards are being implemented and organizations have experienced success. At the same time, because they are voluntary, uptake has not been 100%. In addition, evidence for their effects on promoting worker mental health is still in process. Among the gaps in the literature are the effects of the standards on vulnerable workers in non-traditional sectors.

Conclusion

In this brief report, we summarize the evidence for the concern about the mental health of workers and how it is being addressed. It is a challenge faced by employers and workers around the globe. The research evidence describes the significant burden in the workplace. It also has shown that the organization of work can contribute to the risk of mental illnesses. Three major standards and guidelines from Europe and Canada have been developed based on this evidence. They can provide important lessons and building blocks as California develops its unique approach to promoting and supporting mental health of the State's workforce. As the State tackles this new challenge, it also has the opportunity to lead the way in the US. As the home to the largest US economy, California can also be a leader by filling the research gaps in the US evidence base for mental health of workers.

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APPENDIX

Table 1. United Kingdom Health and Safety Executive Management Standards for Work-Related Stress

	Standard	Desired State
Demand	• Employees indicate that they are able to cope with job demands • There are local systems to respond to any individual concerns	• Given agreed upon hours of work, employee has adequate and achievable demands • People's skills and abilities are consistent with job demands • Jobs are designed within the capabilities of employees • Employees' concerns about their work environment addressed
Control	• Employee has a say about how they do their work • There are local systems to respond to individual concerns	• Where possible, employees have control over work pace • Employees are encouraged to use their skills and initiative to do their work • Where possible, employees are encouraged to develop new skills to help them undertake new and challenging pieces of work • The organization encourages employees to develop their skills • Employees have a say over timing of breaks • Employees are consulted about their work patterns
Support	• Employees indicate they receive adequate information and support from colleagues and supervisors • There are local systems to respond to individual concerns	• The organization has policies and procedures to adequately support employees • Systems are in place to enable and encourage managers to support their staff • Systems are in place to enable and encourage employees to support their colleagues • Employees know what support is available and how and when to access it • Employees know how to access the required resources to do their job • Employees receive regular and constructive feedback
Relationships	• Employees indicate they are not subjected to unacceptable behaviors (e.g., bullying) • There are local systems to respond to individual concerns	• The organization promotes positive behaviors at work to avoid conflict and ensure fairness • Employees share information relevant to their work • The organization has agreed policies and procedures to prevent or resolve unacceptable behavior • Systems are in place to enable and encourage managers to deal with unacceptable behavior • Systems are in place enable and encourage employees to report acceptable behavior
Role	• Employees indicate they understand their role and responsibilities • There are local systems to respond to individual concerns	• The organization ensures that as far as possible, the different requirements it places on employees are compatible • The organization provides information to enable employees to understand their role and responsibilities • The organization ensures that as far as possible, the requirements it places upon employees are clear • Systems are in place to enable employees to raise concerns about any uncertainties or conflicts they have in their role and responsibilities
Change	• Employees indicate the organization engages them frequently when undergoing an organizational change • There are local systems to respond to individual concerns	• The organization provides employees with timely information to enable them to understand the reasons for proposed changes • The organization ensures adequate employee consultation on changes and provides opportunities for employees to influence proposals • Employees are aware of the probable impact of any changes to their jobs. If necessary, employees are given training to support any changes in their jobs • Employees are aware of timetables for changes • Employees have access to relevant support during changes

Source: hse.gov.uk/stress/standards Accessed October 30, 2019.

Table 2. PRIMA-EF Guidance on the European Framework for Psychosocial Risk Management

Work-Related Psychosocial Hazard	Description
Job Content	• Lack of variety or short work cycles • Fragmented of meaningless work • Under use of skills • High uncertainty • Continuous exposure to people through work
Workload and Work Pace	• Work overload or under load • Machine pacing • High levels of time pressure • Continually subject to deadlines
Work Schedule	• Shift working • Night shifts • Inflexible work schedules • Unpredictable hours • Long or unsocial hours
Control	• Low participation in decision making • Lack of control over workload, pacing, shift work, etc.
Environment and Equipment	• Inadequate equipment availability, suitability or maintenance • Poor work environmental conditions such as lack of space, poor lighting, excessive noise
Organisational Culture	• Poor communication • Low levels of support for problem solving and personal development • Lack of definition of, or agreement on organizational objectives
Interpersonal Relationships at Work	• Social of physical isolation • Poor relationships with superiors or co-workers • Interpersonal conflict • Lack of social support
Role in Organisation	• Role ambiguity • Role conflict and responsibility for people
Career Development	• Career stagnation and uncertainty • Under promotion or over promotion • Poor pay • Job insecurity • Low social value to work
Home-Work Interface	• Conflicting demands of work and home • Low support at home • Dual career problems

Source: World Health Organization. *PRIMA-EF Guidance on the European Framework for Psychosocial Risk Management*

Table 3. Psychological Health and Safety in the Workplace National Standard of Canada

	Indicators
Organizational Culture	• all people in the workplace are held accountable for their actions • people at work show sincere respect for others' ideas, values, and beliefs; • difficult situations at work are addressed effectively; • workers feel that they are part of a community at work; • workers and management trust one another
Psychological and Social Support	• the organization offers services or benefits that address worker psychological health; • workers feel part of a community and that the people they are working with are helpful in fulfilling job requirements; • the organization has a process in place to intervene if an employee looks distressed while at work; • workers feel supported by the organization when they are dealing with personal or family issues; • the organization supports workers who are returning to work after time off due to a mental health condition; • people in the organization have a good understanding of the importance of worker mental health
Clear Leadership and Expectations	• in their jobs, workers know what they are expected to do; • leadership in the workplace is effective; • workers are informed about important changes at work in a timely manner; • supervisors provide helpful feedback to workers on their expected and annual performance; • the organization provides clear, effective communication
Civility and Respect	• people treat each other with respect and consideration in the workplace; • the organization effectively handles conflict between stakeholders; • workers from all backgrounds are treated fairly; • the organization has effective ways of addressing inappropriate behavior by customers or clients
Psychological Demands	• the organization considers existing work systems and allows for work redesign; • the organization assesses worker demand and job control issues; • the organization assess the level of job control and autonomy afforded to its workers; • the organization monitors the management system to address behaviors that impact workers and the workplace; • the organization values worker input particularly during periods of change and the execution of work; • the organization monitors the level of emphasis on production issues; • the organization reviews its management accountability system that deals with performance issues and how workers can report errors; • the organization emphasizes recruitment, training, and promotion practices that aim for the highest level of interpersonal competencies at work
Growth and Development	• workers receive feedback at work that helps them grow and develop; • supervisors are open to worker ideas for taking on new opportunities and challenges; • workers have opportunities to advance within their organizations; • the organization values workers' ongoing growth and development; • workers have the opportunity to develop their "people skills" at work

	Indicators
Recognition and Reward	• immediate supervision demonstrations appreciation of workers' contributions; • workers are paid fairly for the work they do; • the organization appreciates efforts made by workers'; • the organization celebrates shared accomplishments; • the organization values workers' commitment and passion for their work
Involvement and Influence	• workers are able to talk to their immediate supervisors about how their work is done; • workers have some control over how they organize their work; • worker opinions and suggestions are considered with respect; • workers are informed of important changes that can impact how their work is done; • the organization encourages input from all workers on important decisions related to their work
Workload Management	• the amount of work workers are expected to do is reasonable for their positions; • workers have the equipment and resources needed to do their jobs well; • workers can talk to their supervisors about the amount of work they have to do; • workers' work is free from unnecessary interruptions and disruptions; • workers have an appropriate level of control over prioritizing tasks and responsibilities when facing multiple demands
Engagement	• workers enjoy their work; • workers are willing to give extra effort at work if needed; • workers describe work as an important part of who they are; • workers are committed to the success of the organization; • workers are proud of the work they do
Balance	• the organization encourages workers to take their entitled breaks; • workers are able to reasonably meet the demands of personal life and work; • the organization promotes life-work harmony; • workers can talk to their supervisors when they are having trouble maintaining harmony between their life and work; • workers have energy left at the end of most workdays for their personal life
Psychological Protection	• the organization is committed to minimizing unnecessary stress at work; • immediate supervisors care about workers' emotional well-being; • the organization makes efforts to prevent harm to workers from harassment, bullying, discrimination, violence, or stigma; • workers would describe the workplace as being psychologically healthy; • the organization deals effectively with situations that can threaten or harm workers
Protection of Physical Safety	• the organization cares about how the physical work environment impacts mental health; • workers feel save about the physical work environment; • the way work is scheduled allows for reasonable rest periods; • all health and safety concerns are taken seriously; • workers asked to do work that they believe is unsafe, have no hesitation in refusing to do it; • workers get sufficient training to perform their work safely; • the organization assesses the psychological demands of the jobs and the job environment to determine if it presents a hazard to workers' health and safety

Source: Canadian Standards Association and Bureau de normalisation du Quebec. *Psychological Health and Safety in the Workplace*