Mental Health: Where do we start?

A Guide for the Construction Industry

CONSTRUCTION
SAFETY RESEARCH ALLIANCE

KEY TAKEAWAYS

1. Mental health is a highly complicated issue and even medical experts can disagree on diagnosis and treatment. Most professionals in the construction industry are not qualified to diagnose or treat mental health issues.
2. Despite best intentions, construction professionals may make things worse by implementing unsubstantiated and potentially dangerous interventions. Non-professionals cannot provide positive support to individuals consistently.
3. This is a growing scientific field and there are many questions to which we do not have scientifically defendable answers. Therefore, in our rush to act we are vulnerable to making things worse by implementing potentially dangerous unverified interventions.
4. There has been an unfortunate rise in unsubstantiated mental health interventions introduced by unqualified individuals. These interventions are not grounded in robust empirical research and may cause harm to some employees. Any proposed interventions should be carefully examined for their effectiveness, scientific rigor, and validity before implementation.
5. The best role of a construction professional is to de-stigmatize mental health, and serve as a bridge that connects the workers needing support with qualified medical professionals.
6. The way the construction industry operates does have negative impacts on its workers, as the statistics sadly show. Workers of all demographics, site and office-based, are most negatively affected by financial stress and job demand. This is where we need to act.
7. We should reflect on how construction work can negatively affect mental health and seek to improve workplace conditions through collaboration with clients, trade partners, suppliers, and other key players that affect how we do our work.
8. The effectiveness of mental health interventions may be assessed by examining impacts to job satisfaction, financial security, and a sense of belonginess of workers. These are the wellness outcomes the workforce wants.
9. The mental health crisis is an opportunity to dramatically change the way we work to support mental health and overall wellbeing. Although this won't be easy, it does provide an opportunity to make construction a healthier workplace for future generations.

Results presented in this guide were derived from a systematic review of academic literature and by analyzing the data collected from

1,197
employees

in the construction industry across the U.S. and Canada.

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WHY...

do we need to act?

Mental Health. From regulators to senior management to individual employees – we are all talking about improving the *mental health* of workers on jobsites. Rarely has the construction industry experienced such a unanimous and pressing call to action.

Although poor mental health is an ongoing global crisis [1], the urgency to act specifically within the construction industry is justified. The rates of suicide and mental health concerns amongst the construction workforce are several magnitudes higher than rates amongst the general population [2]. This has pushed many construction organizations to take decisive steps to address the mental health of their employees. Common actions include the production of physical tokens with suicide prevention hotline information, the delivery of training/seminars, and continued positive messaging around mental health. These steps are being taken in the hopes that they are not only educational but will also assist in destigmatizing conversations around mental health. Some companies have even started to develop much more complex, targeted, and resource-intensive investments, such as providing counseling and psychiatric services for workers and, in some cases, for their immediate families as well.

Although mental health-related illnesses and disorders are not a new challenge for human beings, they continually evolve. This is not surprising because our mental health is interlinked with our lifestyle, work, technology, education, etc. – all of which constantly changes

with each generation [3-5]. Scientific research of mental health can therefore quickly become invalidated or antiquated as the world itself rapidly changes. The medical community continues to research and bring new knowledge to the field. However, due to the complexity of the issue [6-7] and the long-term nature of scientific medical research, the pace of scientific research does not always satisfy the urgency of practitioners. This means we currently live in the uncomfortable and unfortunate reality of having an urgent mental health problem without all the answers.

What is concerning is that some people are keen to capitalize on the poor mental health trends within the industry, even if they may be coming from a place of good intentions. There are individuals and companies proposing 'silver bullet' solutions that are, in some cases, effectively the modern-day equivalent of 'snake oil.' For example, many people today are struggling with poor mental health and are unable to access medical services for a myriad of reasons [8]. This vacuum is being filled by a number of mobile-based mental health Apps which see individuals interacting with chatbots with potentially horrifying consequences [9]. The associated terms of service sometimes are a clear admission of irresponsible behavior[1] [10], but in some cases, they remain hidden behind the influencers and celebrities hired to market these products [11-13]. Even when we have good intentions and we seek to use our personal experiences with mental health to help others, things can potentially backfire. We must realize when we provide solutions based on our experiences, we are devaluing the medical nature of mental health issues. If we break a bone, we are able to empathize with others who experience similar pain, but it does not make us orthopedic surgeons. Similarly, while empathy and compassion are important, our personal experiences should not be considered sufficient expertise to provide preventative or diagnostic care.

Mental health is an emotionally charged topic. But it is, first and foremost, a medical condition and deserves to be treated as such. As industry professionals, human resource managers, and academics in the construction discipline, we are not the experts. We will also not become experts unless we go through the rigorous education and training required to become a licensed medical professional. There is no substitute or half-measure that is sufficient to provide care. At the same time, we are also duty-bound to take actions that support employees in building healthier life whilst also ensuring we are not responsible for exacerbating their poor mental health.

So, how do we take actions that are positive without causing harm or falling prey to those taking advantage of this complex situation? A team of 15 industry professionals and academics developed this guide to help inform construction professionals and senior leaders. This guide is not only grounded in the very latest scientific evidence presented within medical literature, but also draws on empirical data collected from 1,197 employees in the construction industry across U.S. and Canada. The collaboration between the academics and industry professionals produced findings that were based on defendable science and experiential learning thereby capturing the uniqueness of our industry and the specific mental health considerations of our workforce. This evidence-based guide will allow practitioners to design mental health interventions that result in targeted, measurable and meaningful impacts, thereby fostering a true culture of support rather than simply an illusion of support.

[1] For Example, Woebot claims in its terms of service: "YOUR USE OF INFORMATION PROVIDED ON AND THROUGH THE SERVICES IS SOLELY AT YOUR OWN RISK. NOTHING STATED, POSTED, OR MADE AVAILABLE THROUGH THE SERVICES IS INTENDED TO BE, AND MUST NOT BE TAKEN TO BE, THE PRACTICE OF MEDICINE OR THE PROVISION OF MEDICAL CARE."

WHY...

can't we "treat" mental health in the workplace?

Science has determined that the root causes, manifestations, and expressions of mental health issues vary dramatically across the globe. This means that the findings from one culture, age group, gender, financial and social standing, etc., cannot simply be generalized to other groups [18-20]. Thus, it is extremely difficult for medical professionals to make consistent psychiatric diagnoses. Some findings show that psychiatric errors (i.e., representing both delayed and/or inaccurate diagnosis) are more commonplace than previously believed. Things become even messier when we realize that medical practitioners can also differ significantly in their prognoses of illnesses, disorders, and disabilities (i.e., there is a lack of consensus among the experts) [14-16]. Finally, there are numerous studies that have used rigorous scientific investigative strategies to reveal that clinicians can have diagnostic biases, just like experts in any other field, as they look for patterns that correlate with their individual experiential learnings [17].

> ***"There are no consistent tell-tale signs of poor mental health that we can apply across different people..."***

But what does this say about our (i.e., laypeople) ability to aid individuals if even the experts are sometimes inconsistent in their diagnosis and are prone to biases?

It means we are, at best, just as bad - but more often and more likely, worse. For example, a common issue with non-professionals is the desire to find readily discernable physical or mental characteristics that would allow them to diagnose mental health issues. Deviations from 'normative behavior' are suggested to us as a strategy to identify when someone may be experiencing poor mental health – which is incidentally how stereotypes are formed [16]. But in reality, more often than not, people who are clinically depressed are not walking around with doom and gloom on their faces; they are extremely adept at hiding their internal struggles and creating a resilient façade of someone doing well. How often have we heard someone register their surprise after someone dies by suicide and remark how they appeared to be just fine? Like other stereotypes (e.g., all introverts are shy, submissive, and lack intrinsic confidence), identifying physical and mental attributes is a dangerous exercise [23] and not one that should be encouraged in any form.

Depression manifests in many ways. Someone who is depressed can showcase a personality that ranges from anywhere between being extremely friendly to extremely anti-social. **Each person internalizes and fights the pain emanating from mental health illnesses differently.**[2] This is supported by psychological evidence [16, 21-22] that suggests there are no generalizable antecedents to poor mental health across individuals from differing demographical backgrounds. Behavioral

[2] An anecdotal story can be found in this highly recommended, well-written opinion piece in the Guardian: https://www.theguardian.com/commentisfree/2015/jan/03/depression-doesnt-make-you-sad-all-the-time.

psychology literature also shows that human beings are frustratingly complex, meaning that diagnostics and treatments are neither simple nor generalizable. By using stereotypical and misunderstood attributes of mental health, we often unintentionally stigmatize the very thing we are trying to fight. Obviously, this is not to say that one should not act if there are visible physical impairments observed (e.g., slurred speech, disorientation), but we can fall prey to confirmation bias if we look for universal signs of self-care neglect. All of us must have the appropriate humility to admit we are both unknowledgeable and biased and, therefore, should not assert ourselves as diagnostic sleuths.

So, does this mean we should give up and not take any action at all? **No**

The first order of business is to educate ourselves on the terminology. If someone says we need to do something about improving the mental health of our employees – we first need to understand the unrealistic expectations loaded into that statement. Mental health includes everything from overall mental wellness, negative moods, stress, anxiety, depression, attention-deficit/hyperactivity disorder, post-traumatic stress disorder, schizophrenia, bipolar, chronic pain illnesses, suicide ideation, etc.,. This non-exhaustive list of mental health terms cannot and should not be used interchangeably. Medically, these terms represent different types of ailments that require different types of treatments, often tailored to the individual. Some of the most common terms are defined below, which are based on the existing consensus within

Key Terminology

Mental Health "Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community." [24]

Mental Wellness "Refers to the degree to which one feels positive and enthusiastic about life. It includes the capacity to manage one's feelings and related behaviors, including the realistic assessment of one's limitations, development of autonomy, and ability to cope effectively with stress" [25, pg. 1]

Mental Illnesses "Mental illnesses are health conditions involving changes in emotion, thinking or behavior (or a combination of these). Mental illnesses can be associated with distress and/or problems functioning in social, work or family activities." [26]

Psychiatric treatment Treatment provided by a licensed medical practitioner that typically involves pharmacological therapy administered through inpatient/outpatient care. [27]

Psychotherapy A form of treatment that requires working with a trained mental health professional (e.g., psychologists, psychiatrists, or other qualified mental health provider) and is often paired with psychiatric treatment if the individual is diagnosed with mental illness. [28]

Cognitive Biases Systemic or patterned errors (i.e., deviations from rationality) in our cognitive processes that can consciously or subconsciously influence our judgments and decisions. [29]

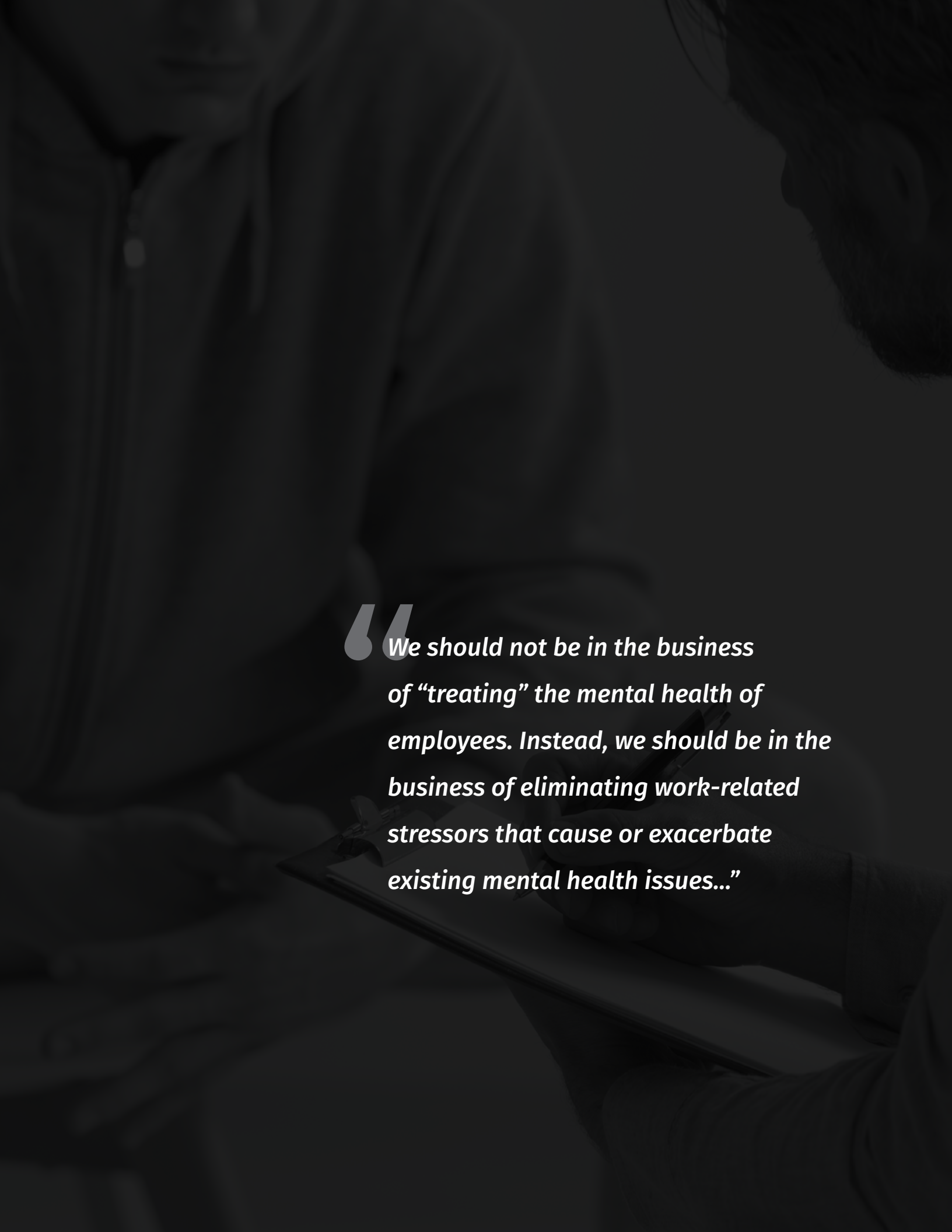
psychiatric and psychology literature. When dealing with different mental health conditions, knowing what makes these ailments different is very important. Personnel involved with supporting mental health at work should seek to constantly update themselves on the definitions and terminology as the medical evidence evolves and matures.

2 **The second order of business** is to understand what is it that we CAN do. So far, it may appear that this guide is taking a stance that construction leaders, practitioners, and academics should not act at all. But that is not the case. In this guide, we want to create a roadmap of reasonable and appropriate avenues for actions by guiding leaders on how to create mission statements for their mental health programs, how to build an action plan that aligns with the mission statement, how to better interrogate any proposed solutions to improve mental health, and how to evaluate the quality of the mental health investments against pre-set success/failure standards.

We should not be in the business of "treating" the mental health of employees. Instead, we should be in the business of making sure we are providing education that increases awareness of the mental health crisis, combating stigma against seeking help, and making investments to provide resources that allow individuals to seek treatment from medical professionals, whilst also establishing a positive working environment that supports the wellness of all employees at work. It may seem we are already doing the latter (i.e., educating and providing resources), but more often than not, we are also engaging in the former (i.e., aiming to prevent and 'fix' mental illnesses). Although the distinction between interventions that seek to treat vs. those that aim to support may appear to be frivolous and pedantic, this guide demonstrates in the subsequent sections the possible unintentional yet negative consequences of trying to "treat" mental health on construction jobsites.

KEY TAKEAWAYS

- Mental health illnesses, disorders, and conditions are complex and affect people differently.
- The medical community agrees that mental health issues require unique interventions that are specific to the individual. There are NO validated silver-bullet solutions for mental health treatment.
- We can support individuals with mental health concerns by providing them with the access to comprehensive professional resources.
- We can make structural changes to how the industry works that help mitigate work-related stressors that harm the mental health of our employees.



“We should not be in the business of “treating” the mental health of employees. Instead, we should be in the business of eliminating work-related stressors that cause or exacerbate existing mental health issues...”

WHAT...

about the construction industry is harming employee mental health?

There have been a number of studies in recent years conducted by academics to record mental health trends [30-32] and determine potential root causes [33-36] that are specific to the construction industry. Research has summarized the different stressors affecting construction workers and discussed the consequences stemming from poor mental health outcomes as it relates to the industry, which include absenteeism, burnout, substance and alcohol addictions, behavioral addictions, compulsive behaviors, work-life balance concerns, etc. [37-38]. It is clear that in some cases the overall health of many of our employees is deteriorating quite rapidly.

> ***"Empirical evidence was collected to determine which work-related stressors are significant..."***

What is also clear from the research already undertaken is that there are a plethora of work-related stressors impacting the mental health of workers. But what has not yet been determined is the hierarchy of those stressors in terms of their relative importance to the workforce. Not all stressors can be equally important. Not all stressors are also in the purview of an organization's capacity to manage. We therefore need to know the relative significance of the different work-related stressors and how that significance changes across the key demographical groups found within the industry. In any business, resources are always limited, and so we need to know where best to focus our efforts in order to maximize impact and potential benefits.

To address this specific gap in knowledge, a survey was launched that took the key stressors identified in the construction industry by previous research [33-36] and asked employees to rank them from most significant to least significant. A total of 1,197 employees from the construction industry across U.S. and Canada were sampled, with the demographical breakdown shown in Table 1.

TABLE 1: SURVEY DEMOGRAPHICS

Demographic Dimensions[1]	Office (N = 696)	Field (N = 501)
Caucasian	526	340
Hispanic	42	49
Other Ethnic Groups	86	64
Age: 18 – 40 years	305	247
Age: 40+ years	374	233

[1]Numbers do not add up to 100% because some participants chose "decline to respond" for some of the above demographic questions.

The top three stressors were found to be:

Financial Stress **Job Demand** **Factors Outside Work**

These three stressors are what people reportedly care about the most when it comes to their mental health. These stressors may not seem very surprising given the nature of work in our industry (e.g., transient workforces, uneven work patterns) and what is happening outside the industry (e.g., socio-economic pressures, geo-political uncertainties, isolation, COVID-19's short- and long-term impacts, etc.) but it is a confirmation that these issues are what the industry workforce find most stressful about working in construction.

What was surprising was that these rankings were consistent across all demographic groups captured in our study: office and field, Caucasian and Hispanic workers, and younger and older workers. This is very interesting considering the differences in generational and socio-economic backgrounds. Please note that whilst these findings have high external validity (i.e., generalizability) given the size of the dataset, they are not causal in nature.

> ***"...the results were consistent across all key demographic groups..."***

Financial Stress: Uncertainty around financial well-being was rated as the most significant stressor by construction workers. Not only was this true for both Caucasian and Hispanic workers, but also true across different age groups and those working in the office and the field. Financial stress as the top-billed stressor makes sense for the construction industry. The transient, cyclical, and fragmented style of work can mean workers are never confident of where their next paycheck is coming from – a precarious position, for example, if you have a family to support and a mortgage to regularly pay. The transitory nature of the job can also result in short-term contracts which adds further significant uncertainty into any long-term financial planning. We need to consider the impact of the frequency of payments (e.g., does our payment scheme support people meeting their monthly bills), the impact of (unanticipated/unintentional) delays in payments, the consequences of false promises from management, or even misplaced expectations of financial growth among workers. Although labor shortages have increased the compensation provided for construction work – both on the job site and in the office – it is the consistency and security of financial arrangements that matters most for good mental health, not just how much it is.

Studies have shown that financial stress can lead to mental health challenges ranging from

psychological distress to suicide ideation [39-41, 45]. Financial stress can also have short- and long-term consequences on physical health [42]. As noted above, this is not as simple as the issue of being financially well-off or just increasing pay. Individuals who have access to adequate health insurance and care may also suffer from financial strain. That is financial strain exists irrespective of relative economic standing [43]. There is biological evidence that financial distress has significant influence, with studies finding it causes poor physiological health (e.g., inflammations through decreased cytokine production, cardiovascular diseases, etc. [41-42, 44]) by reducing psychological well-being (i.e., positive cognitive processes).

Job Demand: This is a complicated stressor. Academics have identified many different factors that fit under the umbrella of job demand: transient nature of work, amount of control, fluctuation in workload, physical strains, burnout, etc. It is a stressor that can range from uncertainty around workload to excessive work pressure [57]. While it is difficult to pinpoint the key factors contributing to this stressor for our industry, it is not difficult to draw some links between increased job demands on the existing workforce with the ongoing labor shortage. In the U.S., boom in demands from the construction industry has created more work than ever before [58]. But without a corresponding significant influx of new employees, we are only adding to the workload burden of the existing workforce that, in most cases, is certainly willing to do the work – but at a cost to their mental health. Burnout from work has been shown to result in poor lifestyle choices and even an increased dependency on opioids and alcohol [46]. This adds context to the statistics showing an increasing number of construction workers with high stress and susceptibility to addictions [47].

The science on the causal links between job demand and health impairment is still under investigation [59]; however, there is sufficient evidence demonstrating that job demand can

trigger negative psychological factors that have the capacity to directly and indirectly impact physical well-being (e.g., depression, alcohol and substance misuse, cardiovascular diseases, etc.) [55-56]. Demands are not experienced by individuals ubiquitously – these vary with gender, age, and other key demographic factors. There is an urgent need for deeper investigation into the tenets of job demand as it relates to the construction workforce.

Factors Outside Work: When we observe the global trends around mental health [60-63], this stressor ranking highly on our list is not surprising. It was, again, pervasive across all demographical groups. Outside work factors can include, but are not limited to, family and marital stability, health and well-being of family and friends, world events, news, isolation, or even the weather. This stressor can consist of any non-work-related factors that are important to each individual's personal intrinsic goal of being happy.

Consider how complicated, personal, and potentially inappropriate such conversations could easily become in the workplace. That is why remedying and resolving this stressor is definitely out of scope for us as non-experts. We can be sympathetic or empathetic depending on the situation but should avoid prying into personal issues, even if the motivation is to support the person better. There are studies that show that our biases can dictate how we speak, how we process, and respond to the information being shared with us, thereby creating the potential for mental health harm to everyone involved in the conversation [48-53]. Providing employees with access to professional help is the only reasonable solution. People bring their mental health into the workplace, and we should be very careful to ensure the workplace does not become an additional stressor when someone is already struggling with non-work-related stressors.

KEY TAKEAWAYS

- The most consequential work-related stressors for construction workers are: financial stress and job demand. We must design interventions that are specifically targeting these two stressors to provide wellness support that really matters.
- The consistency of results across different groups suggests that effective interventions focused on these work-related stressors will yield significant improvements.
- Employers cannot fix stressors that are not work-related. The most helpful, valid, and ethical actions to support employees involves providing discrete access to professional health services.

WHAT...

can we do?

There is quite a lot we can do. Whether you are a senior manager, site leader, or an employee – there is a lot we can actually do. Our research revealed five feasible steps that may underpin an appropriate action plan, summarized in Figure 1. These are based on actions to help support the mental health of the construction workforce, develop capacity to learn and improve, and will not make conditions worse through unintentional actions.

First, we must understand that the mental health crisis within the world is a growing challenge for everyone – it's not specific to any country or any particular industry. Our job is to be sympathetic/empathetic and act as a signpost that guides individuals toward appropriate professional help. There is a stigma not only among construction workers but also within the general population towards seeking therapeutic aid for many reasons ranging from machoism, distrust, expense, and bad experiences [54]. Through non-intrusive engagement, we can help bridge the gap between someone accepting they need professional help to them actually making the decision to seek it out, but it is not within our skill set to diagnose people (i.e., getting someone to accept they have mental health issues) or suggest coping strategies (i.e., potential treatments, therapeutic activities). We should ONLY be the bridge between these two positions. If we genuinely believe mental health illnesses are a disease, we must treat them with the same reverence we treat any other illness and guide people towards seeking professional help.

FIGURE 1

An Action Plan to Address Mental Health Crisis

Educating ourselves on the mental health crisis and learning how to be supportive and empathetic.

Defining roles and expectations of everyone involved: senior management, site leaders, and all employees.

Creating a formal program with an achievable mission and corresponding metrics of success that are measurable.

Investing in scientifically-backed initiatives that target specific stressors.

Understand how to communicate what the organization does to support well-being of its employees.

Second, we must all have well-defined roles. The roles of senior executives, site leaders, and coworkers will all be different – and they should be appropriate to what is within that individual's gift to give. That is, only senior executives and management have the power to take consequential action by driving targeted and significant change within the organization. EHS/OHS professionals, site managers, or coworkers cannot do much beyond acting as conduits to support a positive culture around mental health. To be clear, all employees play a crucial role in protecting and nurturing the wellness of each individual on the jobsite by being considerate, accommodating, and understanding. Whether it is management ensuring positive working environment (i.e., no bullying, belittling, or harassment) or individual workers being respectful of each other – these are important attributes of any welcoming work environment. And – while, empathy from the management and coworkers is an important support mechanism, it will not and cannot be a cure for stressors such as financial stress or job demand for most workers. Fortunately, or unfortunately, the onus of addressing how employees are compensated, how work is taken on, how work is completed, and what resources are made available to employee lies only in the hands of the senior executives and management (and, in some cases, the clients, lawmakers, and regulators), who can mandate positive and beneficial change on an institutional level.

> ***"We need a mission statement with metrics that are actionable, measurable, and something people care about. Only then can a reasonable action plan be formulated that can be applied in practice."***

Third, we must create a formal program to address the work-related stressors that the employees have reported back to us as significant drivers of their personal health. Any program must start by having a clear and reasonable mission statement. Without mission statement, it would be impossible to establish success and failure standards that would allow us to objectively evaluate the performance of our investments.

What makes for a reasonable mission statement? If we say our goal is to reduce suicide numbers/mental health illnesses among workers – that would be an example of a poor and unreasonable mission. Suicide rate is not a reliable performance metric because you will never have enough data (thankfully) to benchmark performance in shorter time frames. Just like in the field of safety, if we measure only injury or fatality rates, not only is that statistically unreliable and a poor predictor of future safety performance [64], but it can also have a strong negative impact on organizational safety culture as well [65]. Additionally, we cannot have a mission statement that mandates a reduction in mental health issues among employees. Simply because we cannot, again, reliably measure the rates of mental health issues at work. We cannot rely on self-reported diagnoses of mental health from workers because any individual's diagnosis of their own mental well-being is extremely fickle, biased, and medically unreliable.

Taking inspiration from the U.S. surgeon general's framework for Workplace Mental Health & Well-Being, we asked the 1,197 respondents in our survey to rank that list of positive factors that are the precursors to wellness within the workplace. The list of positive outcomes in our survey was based on the surgeon general's framework core tenets of well-being, namely: protection from

harm, connection and community, work-life harmony, mattering at work, and opportunity for growth [66]. We took these broad constructs, performed a systematic literature review, and determined the key components within them – components that could be measured in practice.

What we found across all demographic groups (office vs. field, Caucasians vs. Hispanics, younger vs. mature workers) again with incredible levels of consistency, was that the three most desired positive outcomes were:

Job Satisfaction | **Financial Security** | **Sense of Belongingness**

When comparing these wellness outcomes to the top work-related stressors in the previous section, these results are quite complimentary. It is a confirmation of what people are telling us – both what harms their health at work (i.e., financial uncertainty, job demands) and what positive outcomes they seek from their workplace (e.g., financial security, job satisfaction, sense of belongingness).

We have studies that showcase how to improve job satisfaction and a sense of belongingness among construction workers [see for example: 67]. This includes, but is not limited to, enhancing job security, increased wages, supporting personal growth, problem-solving, working with their hands, providing diverse and interesting work, and ensuring social interaction with coworkers [68-71]. Yet these goals cannot be achieved with one intervention or initiative – these require long-term structural changes that would need to be instituted and led by senior executives within an organization. Research also shows that working towards these three positive outcomes would not only improve mental health, but also the bottom line of the business [72-73].

Armed with these new findings, let's reconsider what mission statements would be appropriate. We can now establish the mission of our mental health program and create success metrics that are realistic, measurable, and achievable by personnel tasked to realize them. Consider again the example missions: 1. Eliminate suicides, 2. Reduce the rates of mental health illnesses among workers, or 3. Increase job satisfaction, financial security, and sense of belongingness among workers. These example mission statements require dramatically different approaches, skill sets, and budgets to achieve success. With each goal comes also a unique set of expectations. To reduce suicide numbers or mental health illnesses among construction workers, we would need to undertake programs that proactively tackle suicide ideation and debilitating disorders (e.g., fibromyalgia) – expertise that no mental health training offered by consultants can deliver to your personnel. Consequently, we also need to consider the mental health of personnel within the organization tasked with this mission – are we being fair or compassionate to them? Work of this nature can and will take a toll on them too [73]. We would instead like to encourage focus should be on actions that aim to improve job satisfaction, financial security, and sense of belongingness to yield the long-term mental health benefits (e.g., reduced rate of suicide ideation, mental illnesses, strokes, etc.) [74-76] This achieves our objective of improved wellness among employees without compromising our goal of do no harm. The industry wanted an actionable pathway, and the results presented here provide just that.

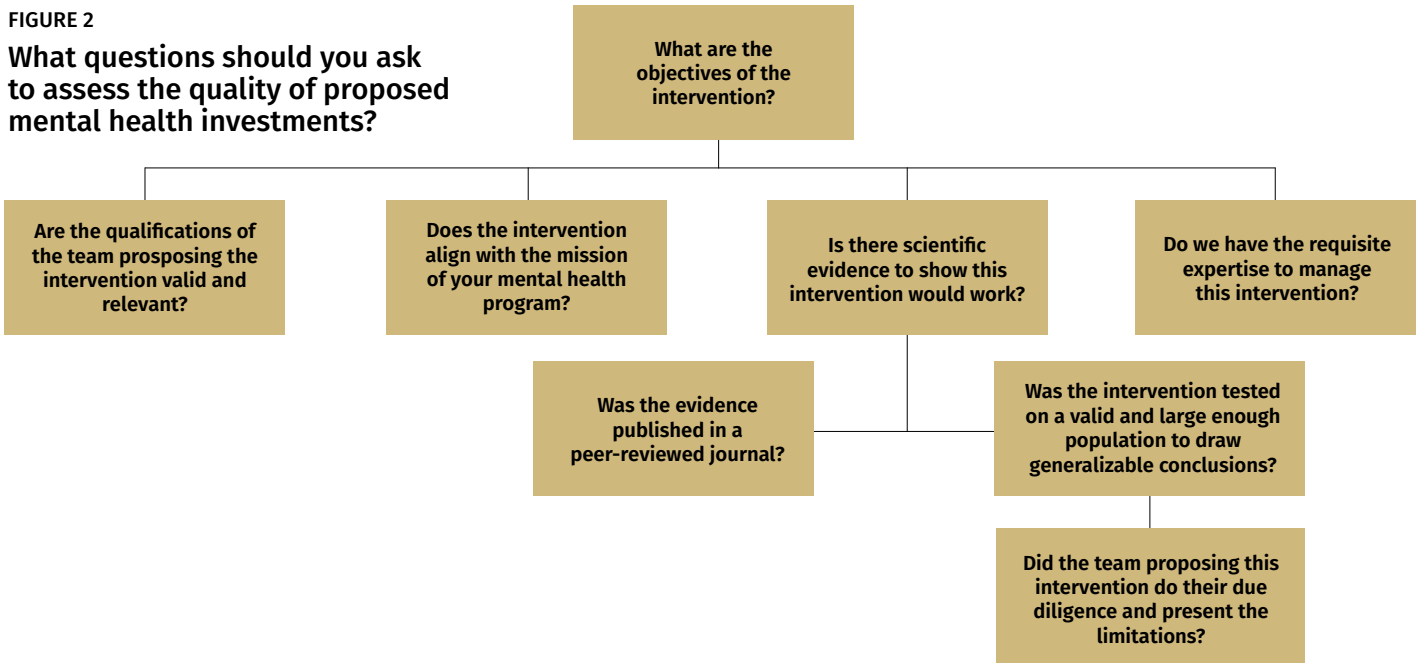
Fourth, is making the right investments. This guide clearly states the pain-points: financial distress and job demands. If we are really seeking to make a meaningful impact, we have to address what the workers are saying are the biggest contributors to poor mental well-being. This guide also provides metrics an organization can use to judge whether or not they are providing a positive working environment: job satisfaction, financial security, and sense of belongingness. These metrics can be measured, benchmarked, and acted upon easily.

The leadership of any business on a daily basis has to thoroughly depose any potential investment they make. Rightly so, because oversight is necessary to promote responsible decision-making that considers the perspectives of all stakeholders. However, when it comes to mental health, all of us understandably harbor a mentality of "let's just try something." This compassionate attitude is not only found amongst leaders in the construction industry, but people in general. We tend to act on impulses of wanting to do something about this crisis – there is an urgency in our decision-making due to personal and shared experiences. The only challenge to this notion is that we tend to think of mental health initiatives with binary outcomes: positive and zero sum (i.e., no change). What we should do is think about: **positive, zero sum, and negative**. Just as if we prescribed someone a medication (no matter how popular) without knowing their medical history we can risk serious harm; the mental health of an individual is no different from their physical health. Thus the consequences of interfering with cognitive processing of someone's mind can have serious ramifications if not done correctly.

Thus, before we clutter the mental health space with myriad initiatives with dubious efficacies, we must consider the impacts – positive and negative – of our actions. The academic literature is littered with examples of harmful approaches to treating mental health that are designed by well-intentioned yet underqualified actors masquerading as experts [54]. It is imperative that when we act, we do so in a deliberate, safe, and scientifically valid manner. If someone is touting an intervention as effective – review the evidence and ask the right questions to determine if their

FIGURE 2

What questions should you ask to assess the quality of proposed mental health investments?



evidence is actually defendable and backed by rigorous scientific testing. The questions in Figure 2 give some examples of possible inquiries you should conduct and investigate personally before making an investment in any intervention. If the answer to any of the questions in Figure 2 is a "YES", it would suggest the intervention being considered has the potential to be effective in improving the wellness of the workforce. If the answer to any of the questions in Figure 2 is a "NO", then we recommend extreme caution before taking any action. It is possible that the intervention being considered could be ineffective or even potentially harmful for some.

It is wise not to accept anything at face value (the common tongue-in-cheek joke about Ph.Ds. not being real doctors certainly applies here!). Only interventions tested and validated by medical professionals should be pilot tested on jobsites. Why pilot tested? Remember, we must always confirm the efficacy of any solution on our workforce. Research shows the generalizability of the effectiveness of solutions across different populations in mental health treatments can't be assumed.

Remember, scientific evidence always has some limitations and caveats. If someone is stating or even implying that a proposed solution can be ubiquitously helpful – that can be stretching the truth at best, if not outrightly disingenuous. In some cases, requisite evidence backing a solution may not exist, but there may be compelling inferential/logic-driven trends that suggest the investment could be effective. That investment or intervention would need to be thoroughly investigated by conducting a small-scale pilot test. This can be done by asking the right questions, collecting data using research-validated tools, and analyzing the data with an impartial perspective to see if the results support a wide-scale application. Collaboration with qualified academics is highly recommended for such pilot work, not only because they can provide the necessary expertise to produce scientifically defendable evidence but they must also function under the purview of their local Institutional Review Board, which is a federally mandated program within the U.S., designed to ensure no harm to humans and animals in research explorations. Like a broken record, this guide repeatedly emphasizes that if we accept that mental health issues are serious medical conditions, careful application of solutions is not only warranted but necessary. Our caution can prevent a potential disaster. If an organization seeks to undertake a pilot exploration on its own, at minimum, it must ensure it is:

1. **Asking the right questions:** A good question is one that can actually be answered and is purposeful. For example, 'does my investment reduce poor mental health?' is not a reasonable question to ask. First, securing reliable data to measure "poor mental health" to perform valid analysis would not be possible. Second, the question is very broad and unfocused. A more focused, clear, and answerable example of a question would be, "Does my investment improve job satisfaction?" Asking the right research question is an exercise in running unbiased and targeted scientific investigations.

2. **Collecting valid data:** In a pilot study, your goal must be to sample from an appropriate population. For example, interventions tested on teenagers may not deliver the same results in an occupational setting with adults. The sample also needs to be large enough to have the requisite statistical power. Ensure the instruments (e.g., questionnaires, interview questions, observation tools, etc.) being used to measure variables have been validated in the literature.

3. **Evaluating data rigorously:** The final step is to conduct the analysis of the data collected and interpret the findings. Statistics can often be

gamed. This concept of fishing for results (data dredging) is an unethical practice. There are many different statistical approaches, and practitioners would need to know which statistical technique to use, whether or not it aligns with the practice within the academic literature and also understand the limitations of the findings. This would be no mean feat, hence why collaboration with appropriately qualified and skilled professionals or academics is recommended.

Fifth, the final step is that we must create a robust communication plan. The plan must address the following questions:

1. How is the organization planning to communicate what they have to offer as part of its mission to support the mental health of its workforce?

2. How is the organization tailoring its communication strategy to appeal to employees from different backgrounds?

Studies have shown that often employees may not only be unaware of the support being offered but mistrust the organization or management for a myriad of reasons [77-79]. The root of such mistrust lies within the culture of both the wider industry and the organization, which cannot be altered overnight. While educational campaigns and appropriate signposting towards professional help are extremely important to combatting stigma and ignorance around mental health, it is important to consider the mission of your mental health program. Visual cues (e.g., flyers, poker chips, stickers) are potentially powerful awareness campaigns. But would they help reduce financial distress or improve job satisfaction? Probably not. We need to address the things that matter to people and stick closely to the mission of the mental health program. Remember, this is why having a mission statement is important: it keeps us not only focused in our actions but provides communication/engagement strategies that set clear expectations, promises, and deliverables.

KEY TAKEAWAYS

- Leaders and peers at work should serve as a bridge between an individual seeking help and the professional services. Their role is not to convince the individual they need help or provide solutions – we are simply unqualified to do that.
- Data revealed that the most desired work-related wellness outcomes for workers across all demographic groups are: job satisfaction, financial certainty, and sense of belongingness. We should focus on interventions that impact these factors when attempting to measure the impact of our mental health initiatives.
- We must thoroughly depose proposed solutions. We should interrogate potential solutions to determine what the intervention promises to deliver, if there is published research that shows the intervention is effective, and how the intervention would help the mental health crisis.
- Creating a culture of support requires long-term commitment and plans for communication and feedback that build the infrastructure needed to support the workforce and sustain improvements.

WHERE...

can we go wrong?

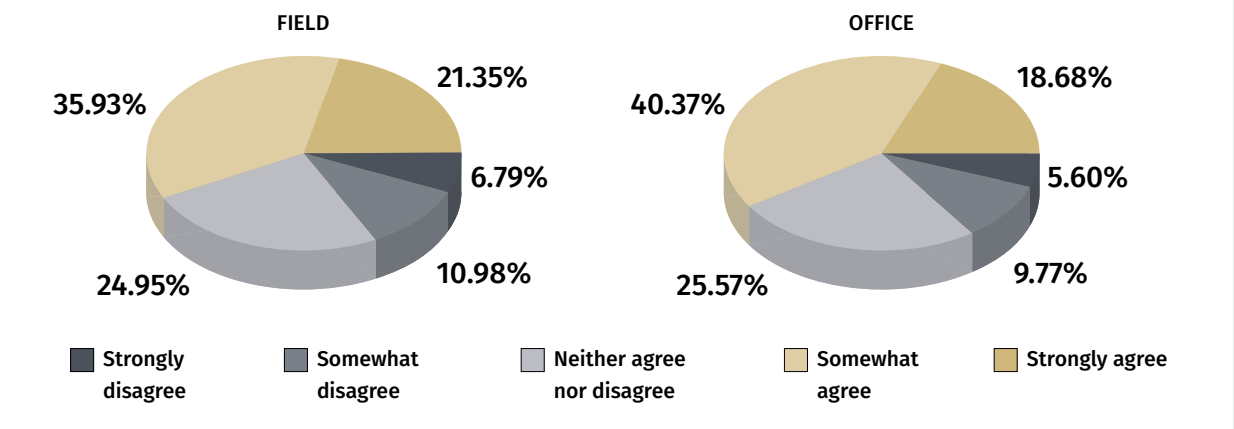
In the previous section, guidance on how to set a mental health program mission, what stressors should be target, and how to measure the success or failure of your efforts was provided. Without establishing an achievable mission, creating a framework to judge success, and using scientific rationale to create potential interventions or changes in organizational practice, we can all too easily fall prey to parlor tricks.

CASE EXAMPLE

Let's take an example of a low-investment solution sold by many "experts": a peer-to-peer support network. This is a type of self-help strategy built around the idea that peer-support is "the provision of emotional, appraisal, and informational assistance by a created social network member who possesses experiential knowledge of a specific behavior or stressor and similar characteristics as the target population, to address a health-related issue of a potentially or actually stressed focal person." [80, pg. 329]. In other words, people with personal experiences of similar problems can personally or collectively help solve those same problems for others. Evidence around peer-support as a tool is controversial because of its unclear scope and unevenness in application [81-82]. Using inferential evidence from adjacent scientific fields (e.g., behavioral psychology), it is quite likely that the application of peer-support specifically on construction jobsites, could actually make problems worse [83].

FIGURE 3

In a quiet and private setting, I would like my managers/leaders/co-workers to check-in with me about my mental health in the workplace.



However, on reflection this is perhaps not so surprising, because we are in the same breath saying two opposing things – (A) construction workers have a stigma around mental health that is coupled with toxic masculinity and poor coping strategies, and (B) peer-based support is a good idea where we equip employees to support each other and guide them towards professional help. Organizations using a peer-support approach need to defend how they are ensuring Quality Assurance and Quality Control of the peers tasked to support individuals struggling with mental health issues. There is no consensus within the medical community that peers can deliver short-term gains or sustain any potential gain in the long term. Only professional medical practitioners can delve into a diverse toolkit (e.g., medication, psychoanalysis, behavioral conditioning, rational argument, extended family discussions, sociopolitical consciousness-raising, etc.) to select the appropriate treatment for different patients.

We can back this up with data. From our survey of 1,197 employees in the industry, it is clear that overall a substantial number of people either do not approve of this approach (~21%) or care about it (~24%). Figure 3 shows the breakdown by work type. At the very least, this supports the notion that we should be cautious about using peer-based interventions for the time being. But we have consultants offering one-size-fits-all peer-support solutions that can promote feelings of disillusionment, belittling, and pandering. This is because it may appear as if we are not giving any consideration to the fact that some individuals may not be looking to discuss or even wish to face reminders about their private and personal mental health whilst at work. It is not for us to judge whether these are rational reactions or not. This is evidence that shows we need to acknowledge that some of our actions can have adverse effects. In addition, perhaps most importantly, peer support does not directly or indirectly make any material change to the work-related stressors (e.g., financial stress and job demands) that people report as their biggest concerns. Empathy from peers simply cannot alter the reality of those stressors.

Finally, we are not implying that peers will always make things worse – but the law of large numbers confirms it will not be long before someone makes a consequential mistake. Why is that inevitable? Because we are trusting non-professionals to be our main line of defense.

- ⚠ Non-professionals that themselves can have a stigma around mental health [84-85].
- ⚠ Non-professionals that have been shown to accept and promote dysfunctional coping strategies when dealing with mental health [86].
- ⚠ Non-professionals most likely also have their own mental health challenges. It is not about "it works 99% of the time, let's do it" – it is about whether we have thought through the scenario of when it does not work that 1% of the time, and what the consequences could be then.

Will those consequences be harmful in the short term, e.g., suggesting bad coping strategies that only provide short-term emotional regulation? People find it abhorrent to think we should not do everything possible to help. This guide respects that sentiment but cautions the readers not to underestimate the frequency with which our actions could also all too easily result in more harm [54, 84-87].

This is, of course, just one example of an intervention that may not work as well as we think it would. We have to remember that anytime we rely on people – be it to support each other or even report how they are feeling – it will be unreliable. We are very biased (experts included), and there is no training or certification process that eliminates biases. Time after time, studies have failed to create a debiasing strategy that works across people from different backgrounds [88-91]. Anyone claiming their training can create an army of consistently empathetic employees that will not display harmful biases is at best being naively optimistic. Remember, when we train people, we are communicating an expectation to them that they will feel obligated to act upon. We must be cautious and careful about what is it that we are tasking people to do and how are they interpreting those tasks.

Mental health is a growing field, even within healthcare, and we are only just learning to talk about it. It is not just about empathy; it is about the right way to deliver that empathy as well. Many genuine efforts to be supportive, encouraging, and friendly can appear to be dismissive at times or, worse, perpetuate bad coping strategies by catering to our desires to have an immediate emotional regulation (e.g., "let's get hammered and numb the pain").

How often has someone suggested, "You're overthinking," "Just forget about it," "Have you tried this alterative meditation," or "You're strong. You'll find a way out." These statements, more often than not, are misguided attempts to be supportive or to motivate someone experiencing poor mental health (in this case depression) that can have dramatically poor outcomes, simply because the language can come across as dismissive, and belittling. This is not to say that the person making such suggestions is not trying to be genuinely helpful and compassionate. But, knowing how to reach out to someone that is suffering with poor mental health is a challenging task. Only a licensed professional can truly navigate these choppy waters by using different cognitive and allopathic strategies over a period of time [54]. We all have directly or indirectly seen people in our social circles extend friendly but unfortunately unhelpful support when it comes to mental health.

Doing something, not anything. If we really want to make a difference, let's talk about the controversial systemic problems within the industry. In our survey, we asked participants the following question: "In your opinion, what has your organization done that has negatively impacted the mental health of everyone in the workplace? If you believe, your organization has not done anything negative, just enter "NONE" below." In our data pool of 1,197 responses, almost all stated substantially the same issue as a gripe against the industry. There is a sink or swim mentality that permeates through *not only how we work but how work is taken on by organizations*. There is a noticeable misalignment in our talk around wanting to improve the mental health of employees vs. expectations from our workforce as it relates to overpromising to clients, working conditions, deadlines, lack of flexibility at work, temporary work, moving away from social circles, lack of honest communication around work expectations etc.– these themes repeatedly appeared.

Two things need to be said here.

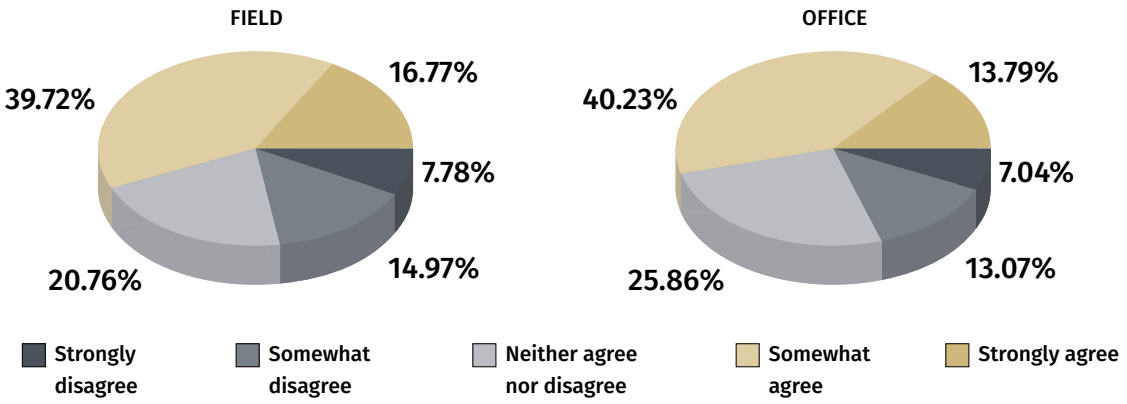
1. First, people love working in the construction industry. There are years of data that back it up, and we know for many, being in the industry is a family business.

2. Second, we have some work to do.

No industry or company is perfect. But we are often reluctant to change the very nature of how work is done because that is like trying to

FIGURE 4

The construction industry (e.g., leadership, management) is responsible for poor mental health trends we see among employees.



turn an aircraft carrier in shallow water. It is monumentally difficult. But it's also what matters and what needs to be done to bring about real and effective change. Figure 4 shows the data collected in our survey; 55% of respondents attribute poor mental health to what the industry does and how it does it. We should therefore challenge ourselves to tackle the aspects of the industry that contribute negatively to mental health, rather than taking on big societal challenges, e.g., stigma and education. There is no harm; in fact, it is recommended and admirable that we provide access to education, awareness, and professional resources. But a lot of what we are trying to address, such as global economic crises, are simply not within our control. But what we do and ask our employees to do certainly is under our control.

So, where does this leave us?

KEY TAKEAWAYS

- Construction professionals are not qualified to diagnose mental health issues. Although based on good intentions, such diagnoses can cause harm and further stigmatize mental health-related issues in the construction workforce.
- Mental health issues should only be diagnosed by a qualified medical professional who is equipped to examine someone's physical or mental attributes.
- Despite years of professional training, even mental health professionals can disagree on diagnoses.
- There has been a rise in unsubstantiated mental health interventions. We should seek evidence to ensure that interventions are likely to cause improvement and reject unsubstantiated claims.

WHAT...

is the final word?

As WHO notes, "[m]ental health is more than the absence of mental disorders. It exists on a complex continuum, which is experienced differently from one person to the next, with varying degrees of difficulty and distress and potentially very different social and clinical outcomes." Mental health is, therefore, a challenge on our jobsite that we have not been professionally trained to handle. All of us are learning about different generational experiences, adapting to changing times, and considering the emerging evidence. Our personal experiences have become our fuel to act – we truly, deeply care. There is a lot to admire in how the industry has galvanized to tackle this issue head-on by looking inwards and asking the difficult questions.

In doing so, we have found that the fundamental structure of our industry is causing poor mental health among employees. We need to address some very, very tough questions. Questions that might generate a dejected reaction in some who would say these changes within the industry are not possible. "It's just how we do work." Unfortunately, if we want to do something that is meaningful and has a long-lasting positive impact on employees' mental health – the goal posts have been set. We need to address: UNCERTAINTY and DEMAND. That is, uncertainty associated with temporary work, finances, expectations, job loss and demands associated with workload, moving nature of work, and time away from family and friends. We blame the workers for having a "tough guy" mentality. We have to ask ourselves – did we cultivate that mentality by asking people to work in a certain manner and in certain conditions? Quite probably we did.

> ***"Employees have laid out what they want: satisfaction, security, and community."***

Job satisfaction can be linked with job demand – if pressure is being put on workers to overwork, take regular overtime, and be tasked with unrealistic production outputs, job satisfaction is likely to be low. Labor shortages could again be impacting workers, but contractual commitments to tight schedules and the production targets set when work is won can also have significant impact here. Thus, being highly competitive in the bidding process for work could actually negatively affect your workers' mental health on the job site when the time comes to deliver. We could therefore consider not overpromising to our clients in terms of schedules and outputs. Let's become better at anticipating conditions where we would need to make unplanned excessive demands of our workers to backfill such promises. Many industry clients are equally concerned about the statistics currently surrounding mental health of construction workers so let's get them on board. This is the perfect opportunity to engage in shared learning and growth. Let's have some conversations with clients around how some of their actions could cause poor mental health among employees.

Organizations can make investments to foster a community that works together, engages positively, and thrives socially. This needs to be more than having a few social outings that are difficult to organize and intrude on employees' personal time. Simple gestures demonstrate the value of each individual. Through leadership engagement, we can know what people value, instilling comradery on site, organize educational activities that builds and fosters a community.

Finally, financial security and financial distress are two sides of the same coin. We shouldn't use the finding presented in this guide as suggestion we need to only provide our aging workforce with financial education and call it a day. Some might wonder why this factor is so relevant to the construction-specific mental health crisis now, when this is how we have done work since the first industrial revolution. While empirical evidence would need to be collected, it is possible that with the current economic climate of multiple recessions hitting the construction industry particularly hard across the world, paired with the impact of the COVID-19 pandemic on supply and demand, the distress being experienced by employees in the industry has grown significantly. Workers can no longer flex and juggle inconsistent wage structures within such a precarious environment - we seem to have finally broken the camel's proverbial back.

Some changes may be relatively easier to make. For instance, we must ensure we pay people without any delays whatsoever, including all our trade partners (or subcontractors) and their employees too. But many of these findings require changes that are long-term, difficult, and potentially unfriendly to the bottom line in the short term. Not all organizations can

deliver on this immediately. But in that case, companies should certainly not engage in smaller investments that are ineffective, unscientific, and even potentially harmful. Not only are we still learning about the employees in our industry, but we are also learning about changes in the world, including but not limited to political, sociological, economic, and technological factors. As such, our fear is that we might be acting on faith at times to see what works and what doesn't. For instance, what seems silly (e.g., peeing on a jellyfish sting) or horrifying (e.g., a full-frontal lobotomy to treat mental illnesses) with hindsight today, was ardently believed to be an effective solution to a problem for years. If we cannot actively make things better, let's at least try to not make things worse. It's as if there were cracks appearing in a dam, and there are folks out there trying to hold back the water with silly putty.

We should always depose proposed interventions/solutions and remain scientifically disciplined even though the topic is highly emotional and, for many, deeply personal. We need to engage better. Not just with people – but with the process also. The process of asking the right questions, creating a formal mental health program, and treating any intervention proposed as an investment – see if it aligns with the stated goals, know how you will test its quality, and continually measure if it lives up to predetermined success standards. Let's encourage everyone to challenge us and each other on what we believe the problems to be within the industry, and whether we are addressing them in the right way. We do not want to be trapped in an echo chamber that perpetuates misunderstandings and misinformation. We recommend you start by skeptically considering everything in this guide. We encourage everyone to depose the data, findings, and editorial opinions against other defendable scientific evidence to determine what passes muster.

We should aspire to reach a level of organizational maturity for mental health– one where we have the know-how to determine what would work, how it would work, for whom it will work, and for whom it would not work. This guide humbly presents to the leaders of the industry a response to their call for action. There is no doubt of a difficult road ahead as this crisis deepens, but there is momentum like never before to reflect on how we work within the industry. We can use this momentum and motivation, the call to action from every corner of the industry, to make dramatic positive changes to how we do what we do. To meet the most critical challenge – the challenge of 5x higher than the general population suicide rate challenge – we must make some dramatic and consequential changes in not only what we do and how we do it, but in our mindsets as well.

We are at crossroads within the industry as we deal with the declining mental health of our employees. Do we address the problem from the sidelines with interventions that may not work (medically speaking), or do we tackle this head-on and fix the structural problems plaguing the industry, so we don't make things worse? The latter is the road less traveled, but in the wise words of Robert Frost – the courage to take that path might make all the difference.

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In the Construction Safety Research Alliance (CSRA), industry leaders and experienced researchers collaborate to pursue the mission of eliminating serious incidents and fatalities in the construction industry with transformative research and defendable science. For more information, visit https://www.colorado.edu/lab/csra/.

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