

Suicide in the Construction Industry

By

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A literature review shows conclusive information that suicide within the construction industry is high compared to society, with documented common themes for suicide and suicidal ideations.

A subset of the common themes tied to the industry includes stigma associated with discussing mental health and suicide, both prescribed and self-medicating for injuries, and seasonal employment that leads to a loss of income and depression.

The difficulty in overcoming some of these obstacles, mainly the stigma is that this industry is comprised of a high percentage of males that

have been led to believe that they need to be mentally strong and not openly discuss topics such as mental health, including suicide. The lack of discussion and seeking assistance

has created an industry with a suicide rate that is 4.3 times as high as the national average, with two to three construction workers dying daily of work-related injuries, with an average of ten to fifteen dying daily from suicide.

Future research should look at how industry executives address mental health and suicide to promote open and honest conversations about the topic.

Research shows that suicide within the construction industry in the United States is more than 4.3 times as high as the national suicide rate, with more workers dying annually from suicide than work-related accidents.

Keywords: Suicide, Construction, Mental health, Executives, Risk factors, Employment

Suicide in the United States (U.S.) has seen an upward movement in the number of suicide attempts in the recent past. This movement has been seen in adolescents as well as seniors. This increase impacts the country both monetarily and emotionally.

This paper will specifically look at the construction industry, which has the second-highest suicide rate in the U.S. The research will be an in-depth review of the literature on suicide within U.S. society in general, with a more in-depth review of the available literature relating to suicide within the construction industry.

United States Construction Industry

The construction industry is a vital part of the U.S. economy and accounts for 4.3% of the U.S. Gross Domestic Product (GDP) (Kolmar, 2022). In 2019 construction accounted for \$887 billion (Simonson, 2020).

The construction industry sectors in the U.S. include residential, commercial, heavy civil, industrial, specialized industrial, and environmental. The industry has more than 733,000 employers with over 7 million employees, creates nearly \$1.4 trillion worth of structures each year, and is one of the largest customers for manufacturing, mining, and various services (Simonson).

This industry can be demanding with employees relocating from job site to job site. These moves can create an environment of instability with their families and co-workers. Additionally, the work hours can be long and fluctuate from days to nights and nights to days. This fluctuation in hours can lead to sleep deprivation and injuries. The oscillation is also disruptive to an employee's home life.

Annual regional unemployment occurs within the industry. Heavy civil workers in cold-weather states can be unemployed for up to five months a year. Asphalt contractors have specification limitations on specific mix applications that can prohibit placement at temperatures below sixty degrees Fahrenheit. Earthmoving contractors' are inhibited from operating once the subgrade soils become frozen. The long periods of unemployment create a "short work season" where the workers can expect to work long shifts up to seven days per week. These long work periods occur when children are on summer school break creating stress in the home life by being absent.

This industry has traditionally embraced a tough-guy mentality. Workers worked through injuries. They would seek medical help, receive a prescribed medication, and quickly return to work. Often, workers would not even report injuries and seek self-medication through alcohol or illegal drugs (Construction Industry Alliance for Suicide Prevention, 2016).

The industry is physically demanding. Equipment operators are subject to repetitive movements and working in the extreme summer heat. In recent years, many types of mobile construction equipment have been equipped with air conditioning to help create a more friendly work environment. The physical demands can lead to workplace injuries and medical treatment, including prescribed medication such as opioids.

The industry can be highly stressful. Most acquired work is obtained in a low bid system that generates low-profit margins. Employers push employees to meet the schedule while performing quality work with no injuries. This pressure begins at the organization's top and filters down to the lowest levels.

While there are now many large employers in the U.S., many small individual or family-owned businesses remain. These businesses may or may not have health insurance, employee assistance programs (EAPS), access to mental health care, or even a human resources professional they can confer with on issues. The lack of these programs can lead to employees not seeking treatment for injuries or emotional problems.

Methodology

The review method was a qualitative literature review, including trade journals, research articles, and public data. The public data and trade journals were heavily relied on due to the limited research that has been performed on suicide within the U.S. construction industry.

The researcher has worked in the construction industry for thirty-seven years. The author worked at multiple levels within the construction industry, beginning as a field testing technician in geotechnical and materials engineering in 1985. At the time of this research, the author served as the President of a mid-size construction entity specializing in producing and placing asphalt pavement primarily for government agencies. During the periods in between, the author functioned as a project manager, quality control manager, and vice-president of an organization overseeing seven asphalt plants.

The paper includes comprehensive literature research on societal suicide in general with a more comprehensive look at causations of suicide in the construction industry. The interpretation of the literature review looked for commonalities between suicide in the general population compared to the sector being studied. The findings looked to discover a common theme in the construction industry that is a subset of the research that has been conducted on suicide in other sectors.

While the industry can be challenging, it can also be rewarding. In Texas, Florida, and Georgia, four out of the five most numerous construction occupations had higher median pay than the median for all employees in the state in 2019, and five out of five in California, New York, Kentucky, and Michigan had higher median pay (Simonson, 2020).

The industry creates a culture of teamwork and family. Employees do not typically work in isolation; instead, they are part of small units ranging from two to fifteen on average, creating an attractive work environment for U.S. military veterans.

The industry creates an environment where high school-educated employees can succeed and gener-

Table 1. Suicide rates* for persons working in major industry and occupational groups meeting reporting criteria. By sex – National Violent Death Reporting System, 32 states, 2016 (Table adapted from Centers for Disease Controls and Preventions)

Census Code	Major Group	Male Rate	Female Rate
0370-0490	Mining, Quarrying, and Oil and Gas Extraction	54.2 (44.0-64.3)**	NC
0770	Construction	45.3 (43.4-47.2)**	9.4 (6.5-13.2)
8770-9290	Other Services	39.1 (36.1-42.0)**	8.8 (7.5-10.0)
0170-0290	Agriculture, Forestry, Fishing, and Hunting	36.1 (31.7-40.5)**	NC ¹
6070-6390	Transportation and Warehousing	29.8 (27.8-31.9)**	(7.9-12.8)**
8560-8590	Arts, Entertainment, and Recreation	27.4 (24.0-30.8)	9.7 (7.4-12.4)
0570-0690	Utilities	26.3 (21.9-30.7)	NC
7580-7790	Administrative and Support and Waste Management Services	25.9 (27.3-28.1)	5.2 (3.9-6.7)
1070-3990	Manufacturing	23.6 (22.5-24.8)	7.3 (6.3-8.2)
9370-9590	Public Administration	23.1 (21.1-25.1)	7.5 (6.2-8.8)
8660-8690	Accommodation and Food Services	22.9 (21.2-24.6)	7.8 (6.9-8.7)
4670-5790	Retail Trade	21.3 (20.0-22.6)	6.8 (6.1-7.5)
6470-6780	Information	19.6 (16.9-22.3)	6.7 (4.7-9.1)
7971-8470	Health Care and Social assistance	18.7 (17.0-20.4)	7.5 (7.0-8.0)
7270-7490	Professional, Scientific, and Technical Services	17.6 (16.2-19.0)	6.4 (5.4-7.3)
7070-7190	Real Estate and Rental and Leasing	16.6 (13.8-19.4)	7.1 (5.0-9.7)
6870-6990	Finance and Insurance	15.1 (13.3-16.8)	6.0 (5.00-6.9)
4070-4590	Wholesale Trade	11.8 (10.1-13.5)	NC
7860-7890	Educational Services	9.3 (8.1-10.4)	3.9 (3.4-4.4)
7570	Management of Companies and Enterprises	NC	NC

Abbreviations: CI = confidence interval; N.C. – not calculated

* Per 100,000 civilian, noninstitutionalized working persons aged 16-64 years

¹ Alaska, Arizona, Colorado, Connecticut, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Vermont, Virginia, Washington, and Wisconsin.

** Statistically higher than population rate (all industries or occupations) based on 95% CI if industry or occupational group rate not containing the total population rate point estimate.

There are many prevalent causes leading to suicidal idealization or eventual suicide in society.

ate a six-figure income. In a few short years, patient employees who ask questions and have a strong work ethic can advance into mid-level and upper-level Management.

Workers tend to take pride at the end of each work shift by looking back at what they constructed for the day, much like an artist looks at a painting. The workers take pride in their accomplishments and abilities to overcome obstacles making it very rewarding. The workers tend to be proud individuals.

The heavy civil industry keeps the nation's infrastructure system at the ports, highways, and airports moving forward. General contractors create masterful high-rise projects, aviation buildings, and medical facilities, to name a few. Environmental contractors work to restore polluted waterways into pristine estuaries. Power line utility contractors bring electricity to our homes and businesses; plumbing contractors allow us to utilize fresh water and dispose of it through a sanitation system. The industry is a proud one that keeps America moving.

Suicide in the U.S.

Suicide in the U.S. occurs for many reasons. Ten of the most common underlying causes and the economic impact of suicide are discussed below. These are presented in the author's perceived order of effects within the construction industry.

Economic Impact – The national cost of suicides and suicide in the United States in 2013 was \$58.4 billion based on reported numbers alone (Shepard, et al., 2015). Lost productivity (termed indirect costs) represents most (97.1%) of this cost. Adjustments for under-reporting increased the total cost to \$93.5 billion or \$298 per capita (Shepard et al., 2016).

There are causes for contemplating or attempting suicide, such as medical, psychological, social, cultural, and economic factors (Boss, 2020). Suicide has a devastating emotional impact on victims' families and friends (Cerel et al., 2008; Tijani et al., 2021).

Table 1 shows the suicide rates for persons working in major industry and occupational groups meeting reporting criteria for 2020. The group studied was census code 0770.

There are many prevalent causes leading to suicidal idealization or eventual suicide in society.

Loss of Income -Studies generally relate income as being associated with suicidal risk. Rancans et al.'s study suggests that a sudden large loss in prosperity is more predictive of suicidal behavior than chronic poverty (Rancans et al., 2001). The indirect causative model indicates that unemployment may bring about relationship difficulties or financial problems that may lead to events precipitating suicide (Luo

et al., 2011). Change in financial status rather than chronic poverty poses a risk for suicidal ideation (Turvey et al., 2002). Hintikka et al. found an association between debt and suicidal ideation in the Finnish general population that remained significant after controlling for mental disorders, alcohol abuse, employment status, and marital separation (Malmberg et al., 1999). In controlled psychological autopsy studies, unemployment was associated with suicide with an up to nine-fold increased risk (Schneider et al., 2011) (Foster et al., 1999). Frequent job fluctuations, e.g., having three or more jobs in the last five years, were associated with increased suicide risk (Schneider et al., 2011).

Stress - Stress experienced at work appears to be strongly associated with attempted suicides (Feskanich et al., 2002). Job stress is a leading cause of workplace suicide (Sullivan & Marie-Line, 2020). Stress can affect mental health, most frequently in terms of anxiety and depression, according to a 1990 research reported by the New York Business Group on Health. Both anxiety and depression have been linked to suicide (Sullivan & Marie-Line, 2020). Adverse working conditions and high work-related stress were associated with increased suicide risk in cohort studies of particular occupational groups (Schneider et al., 2011) (Feskanich et al., 2002).

Sleep Disorders - Sleep disturbance is a risk factor for future suicidal behaviors (e.g., suicidal ideation, suicide attempt, death by suicide). Military veterans are at an increased risk for poor sleep and death by suicide relative to civilians (McCarthy et al., 2021). Poor sleep quality was associated with a more than 60% greater likelihood of developing suicidal ideation (McCarthy et al., 2021). Sleep disorders are a risk factor for suicidal behaviors (Pigeon et al., 2012). Sleep disruption is part of the diagnostic criteria for several psychiatric disorders (e.g., PTSD, MDD) according to the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5; American Psychiatric Association 2013).

Injury - Many of those who become disabled (injured) suffer from the same kind of culture shock as immigrants to a new and challenging society. Those entering the "culture" of the disabled are overwhelmed initially, and they fail in their efforts to adapt; they think of death as a solution (Brodsky, 1977)

Alcohol and Drugs Leading to Self-Medication - Suicide rates have increased among women in certain professions, notably physicians (Lindeman et al., 1996) and nurses (Hawton & Vislisl, 1999), because of occupational stress and access to drugs. Mood disorders, alcoholism, and personality disorders are the three most important risk factors for completing suicide (Yaldizli et al., 2010), (Zelazny et al., 2021), (Kessler et al., 1999), (Dieserud et al., 2000).

Military Veterans - Post-traumatic Stress Disorder (PTSD) is a chronic and disabling disorder that can develop after exposure to traumatic stress (Brownlow et al., 2018). Exaggerated perceptions of threat, characteristic of posttraumatic stress disorder (PTSD), might lead to the acquisition and/or unsafe storage of firearms, thereby increasing suicide risk (Stanley et al., 2020). Two separate studies of U.S. veterans yielded significant results; they found that individuals with a current PTSD diagnosis reported owning significantly more firearms than those without a current PTSD diagnosis (Freeman & Roca, 2001).

Depression - Depression in medical residents leads to decreased clinical efficiency and poor academic performance; it can also lead to suicide (Shah et al., 2021). Depressive disorders are characterized by the presence of sad, empty, or irritable moods, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function (Shah et al., 2021). High levels of perceived social support, adequate sleep, and high income may protect against depression (Shah et al., 2021). Epidemiological studies show a positive correlation between chronic stress, depression, and suicide (Cassano & Fava, 2002).

Lack of Professional Care - For employee suicides, work-related distress coupled with low levels of social support and a lack of professional care serves as the context for their mental health problems (Law et al., 2014). Vulnerable persons may seek to maintain their status as employed workers in part by avoiding contact with mental health professionals, however

much stress they experience or perceive (Law et al., 2014). Countless studies have shown that the experience of control is significant for mental health and well-being and is associated with elements such as motivation, coping, and self-esteem (Skinner, 1996).

Marriage Status - The risk of suicide has been associated with trauma and negative life events such as being divorced, separated, or widowed (Kuo et al., 2012). Studies show that divorce is directly related to suicide mortality because it represents a significant breakdown in the special integration of marital institutions (Trovato, 1987).

Age - According to the US Centers for Disease Control and Prevention (CDC WISQARS, 2019), adolescent suicide rates increased by 85% in the ten years from 2007 to 2017. Suicide is now the second leading cause of death among adolescents aged 10 to 19. Adolescents reporting parental conflicts were nearly twice as likely to report self-injurious behavior (Orlins et al., 2020). Although elderly persons represent 12% of the population, they account for approximately 25% of all suicides (Kirsling, 1986).

Construction Industry Suicide in the U.S.

Within the category of U.S. suicides, the construction industry presents an interesting segment based on the number of annual suicides within the industry. While it is common for people to acknowledge that suicide within the health industry is high, it is staggering to most that suicide within the construction industry is 2.4 times higher than in the health

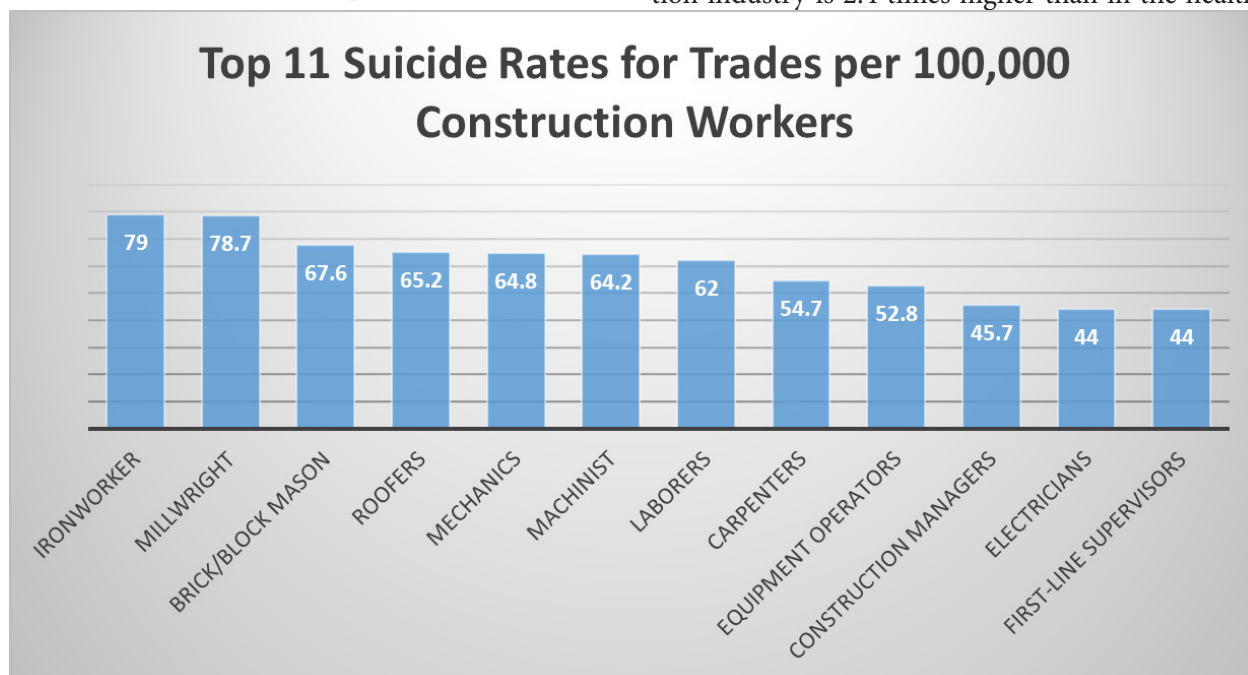


Figure 1: Top 11 Suicide Rates for Trades

Source: CDC; January 24, 2020, <https://www.cdc.gov/mmwr/volumes/69/wr/mm6903a1.htm>

care industry. This apparent lack of knowledge creates an interesting area of research.

Numbers show that suicide within the construction industry in the United States is more than 4.3 times as high as the national suicide rate, according to the Center for Disease Control, January 2021 (Foundation, 2015). The CDC lists the construction industry as having the second-highest rate of suicide in the United States at 45.3 per 100,000 workers. The suicide numbers are expected to be 50 to 60 percent higher than the official rate due to the stigma issues of recording it (Kinder & Cooper, 2009).

This industry struggles to recruit new workers, and the stigmatism of workplace safety and suicide has a negative image of an already demanding work environment. Employers who endorse stigma may be less likely to hire people with mental illness and, therefore, might be targets (Corrigan et al., 2012).

While there has been scanty study on a systematic review of suicide in the construction industry (Tijani et al., 2021), research shows that mental health challenges in the workplace are an emerging organizational challenge (Shann et al., 2014). In the past, suicide prevention in the workplace has been viewed as the responsibility of mental health professionals (Knox et al., 2004).

The top eleven suicide rates for trade workers are presented in Figure 1.

As indicated, construction is 4.3 times higher than the national suicide rate. Ironworkers are on the high end at a multiple of 5.7 above the national average.

Suicide in the construction industry can be correlated to some common themes. The most common themes are discussed below.

Stigma / Employee Assistance Programs– Employees have chosen not to discuss or ask for assistance due to the stigma associated with mental illness and the low use of employee assistance programs (Boss, 2020). While more companies have implemented employee assistance programs, many employees do not consider utilizing them. Many employees do not recognize that the goal of a wellness program is to create an environment that supports positive self and healthful behaviors (Ho, 2017).

Care by supervisors is important for early detection (Goldsmith, 2006); however, the stigma of not acknowledging or discussing an issue can be experienced by both the employee and the supervisor. The lack of or unwillingness to discuss can contribute to suicide in the workplace.

Financial Implications - Studies show that construction workers might be at higher risk because of economic and interpersonal concerns related to a lack of steady employment and fragmented community or isolation (McIntosh et al., 2016). The work can be seasonal, accounting for unemployed work-

Nature of work	Transitory or seasonal employment and cyclical work with regular periods of layoffs and rehiring, workers can experience a lack of belongingness, feelings of isolation and high levels of uncertainty about employment. This can lead to feelings of lack of meaning and life purpose, as well as chronic stress, which can overwhelm workers (Geter, 2019).
Heavy substance abuse	Industry cultures that informally support self-medication to relieve stress and chronic pain can experience high levels of substance abuse problems that increase the risk of suicide (Geter, 2019).
Access to lethal means	People who have access to and familiarity with lethal means like pills and high places are often less afraid and more capable of self-inflicted harm by these means (Geter, 2019).
Strong ethos of self-sufficiency	Among industry cultures that reward people for bravery, stoicism, and toughness, people are less likely to reach out for help during times of challenge, believing they should be able to handle their problems alone (Geter, 2019).
Sleep disruption	Working long, abnormal hours can disrupt sleep patterns and lead to mental and physical exhaustion. This affects performance and may exacerbate mental health concerns (Geter, 2019).
Chronic pain	The construction industry exposes workers to repetitive motion injuries that can lead to chronic pain, increasing the likelihood of burnout, self-medication and overuse of pain prescriptions that can contribute to an increased risk of suicide (Geter, 2019).
Burden of stigma	Industry cultures that lack a commitment to workers' mental health and well-being can reinforce stigma related to mental health issues, preventing people from seeking help (Geter, 2019).

ers throughout the year. Economic hardship increases with financial threats, increasing suicide ideation and confusion (Fiksenbaum et al., 2017). A person's level of consumption may differ greatly from their level of income due to saving behavior (Brown & Gathergood, 2020), leading to suicidal ideation.

Additional distress experienced by workers at times of uncertainty, particularly those in less-skilled jobs and financial strains of uncertainty (Meltzer et al., 2010), creates a loss of self-worth, leading to suicide ideation.

Industry Risk Factors

Table 2 presents common risk factors for suicide in the construction industry as compiled by Geter. Other risk factors include employing a high number of military veterans with a higher risk of suicide in the general population (Affairs, 2018; Travelers, 2020). Over 15 percent of veterans-who have a 50% higher rate of suicide-enter the construction industry and make up a large percentage of the workforce (Ellis, 2018).

Veterans experience social isolation, poor social support, and medical conditions, including chronic

pain, spine disorders, and feelings of hopelessness (Janssen, 2001) that contribute to suicide.

In 2018 the Bureau of Labor Statistics stated that ninety-seven percent of the U.S. construction workforce were male, and 38% were between 45 and 64 years of age. Table 1 presents evidence that males are nearly five times more likely than females to die from suicide in this industry.

According to psychologist Sally Spencer-Thomas, the self-reliant characteristics of individuals working in the construction industry may increase suicide risk by reducing the likelihood of individuals seeking help when needed (Ellis, 2018; Travelers, 2020).

Warning Signs - There are warning signs specific to construction workers: decreased productivity, increased conflict among co-workers, near hits, injuries, decreased problem-solving, and increased tardiness and absenteeism (*Construction Industry Alliance for Suicide Prevention*, 2016).

Figure 2 shows nine common causes of national suicide and the authors' visualization of the interaction within the construction industry.

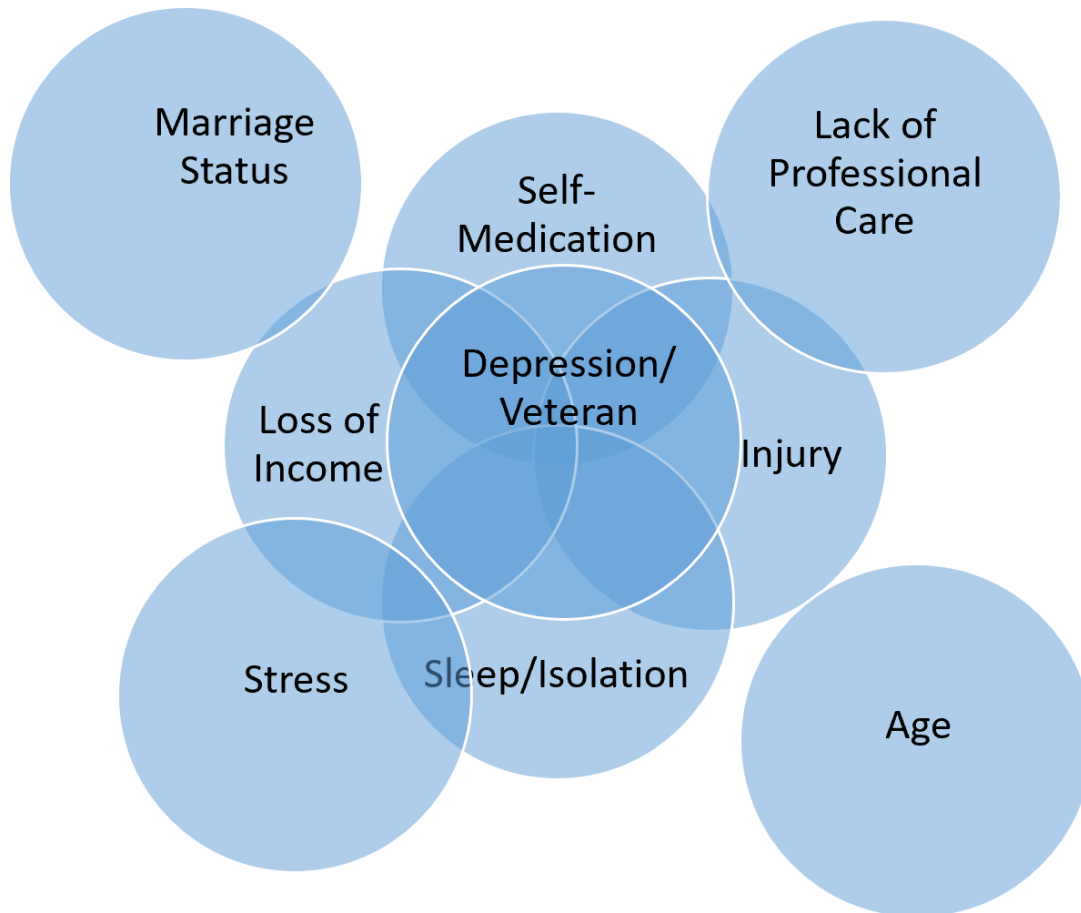


Figure 2: Common Causes of Suicide in Construction Industry

Discussion

The construction industry is a vital segment of the U.S. economy, accounting for 4.3% of the U.S. Gross Domestic Product (GDP) (Kolmar, 2022), with the national cost of suicides and suicide impacts in the United States in 2013 being \$58.4 billion (Donald S. Shepard, 2015). The numbers show that suicide within the construction industry in the U.S. is more than 4.3 times as high as the national suicide rate (Foundation, 2015), with this industry having the second-highest rate of suicide in the U.S.

The industry can be demanding with employees relocating from job site to job site along with long work hours leading to sleep deprivation and seasonal unemployment contributing to income instability. Smaller privately held organizations may not have access to health insurance, employee assistance programs (EAPS), mental health care, or a human resource professional. The lack of these programs creates an environment leading to employees not seeking treatment for injuries or emotional issues, which can be a factor in death by suicide.

Employees in this industry have chosen not to discuss or ask for assistance due to the stigma associated with mental illness and the low use of employee assistance programs (Boss, 2020). While more companies have implemented employee assistance programs, many employees do not consider utilizing them due to the associated stigma.

Studies show that construction workers might be at higher risk because of economic and interpersonal concerns (McIntosh et al., 2016). Distress experienced by workers at times of uncertainty, particularly those in less-skilled jobs and financial strains (Meltzer et al., 2010), creates a loss of self-worth, leading to suicide ideation. The industry employs many veterans who experience isolation, poor social support, medical conditions, and feelings of hopelessness (Janssen, 2001) that contribute to suicide.

The literature supports a scanty study on a systematic review of suicide in the construction industry (Tijani et al., 2021) and mental health challenges in the workplace that are an emerging organizational challenge (Shann et al., 2014). Prevention in the workplace is viewed as the responsibility of mental health professionals (Knox et al., 2004).

Studies are needed on suicide costs, suicide interventions, and young construction workers in the U.S., New Zealand, and the United Kingdom to resolve the problem plaguing the construction industry (Tijani et al., 2021).

Organizational leaders need to be educated on the severity and implications and strengthen social support and make psychosocial services available for individual employees experiencing distress to enhance mental health among employees (Law et al., 2014).

Limitations

The literature review on the construction industry was weighted heavily on trade articles based on limited research. Research on construction industry suicide is relatively new, and the peer-reviewed journal data is limited.

The author had a potential bias of being exposed to suicide by multiple acquaintances in his career's most recent eight years and facing personal suicide idealization in 2007.

Future Research

Future research should look at qualitative interviews with mental health experts and construction industry executives to better understand the issues. Research questions for industry executives should concentrate on their perception of the topic and what their organizations are doing to address the issue.

Follow-up research to the qualitative interviews could include surveying employees quantitatively on money management skills/training and how it impacts their lives. The survey group could then be randomly divided into two groups, with one group receiving training and education on money management skills while the second group received no training. Six-months post-training and then one-year post-training, both groups of employees would be re-surveyed to determine if the training and education had any effect.

The quantitative research would fill a gap in how we onboard and train employees in this industry on money-management skills unique to their particular industry segment.

Conclusions

The literature review presents conclusive information that suicide within the construction industry is high compared to society, with common themes for suicide and suicidal ideation being well documented.

A subset of the common themes tied to the construction industry includes stigma associated with discussing mental health and suicide, prescribed and self-medicating for injuries, and seasonal employment that leads to a loss of income and depression.

The difficulty in overcoming some of these obstacles, mainly the stigma is that this industry is comprised of a high percentage of males that have been led to believe that they need to be mentally strong and not openly discuss topics such as mental health, including suicide.

As presented, future research should look at how industry executives address mental health and suicide to promote open and honest conversations about the subject.

Appendix A provides a list of resources for employers, unions, and multiemployer plans as a reference for contacts that both the employer and the employee can use to navigate this complex subject.

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Review

This article was accepted under the **constructive peer review** option. For further details, see the descriptions at:

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Appendix A: Resources for Employers, Unions, and Multiemployer Plans

The following resources are available for education (Geter, 2019).

- **Center for Disease Control Preventing Suicide Technical Package** www.cdc.gov/violenceprevention/pdf/suicideTechnicalPackage.pdf
- **Construction Financial Management Association Suicide Prevention in Construction** www.cfma.org/news/content.cfm?ItemNumber=4573&navItemNumber=4643
- **Man Therapy** www.mantherapy.org
- **Mates in Construction (Australia)** <http://matesinconstruction.org.au>
- **Mental Health First Aid** www.mentalhealthfirstaid.org
- **National Action Alliance for Suicide Prevention** <https://theactionalliance.org/communities/workplace>
- **Safe Build Alliance Mental Health & Suicide Prevention** <http://safebuildalliance.com/resources/mental-health-suicide-prevention>
- **Working Minds Suicide Prevention in the Construction Workplace** www.constructionworkingminds.org/index.html