

MENTAL HEALTH IN CONSTRUCTION: THE AWARENESS OF THE IMPACT OF STRESS ON CONSTRUCTION PROFESSIONALS' MENTAL HEALTH IN IRELAND AND THE UK

Michael Franklin, Michael Walsh, Noel Clarke, John P Spillane and James G Bradley¹

Irish Construction Management Research Centre, School of Engineering, University of Limerick, Limerick, Co. Limerick, Ireland

In recent years, various Health and Safety initiatives have led to significant improvement of physical safety on site, yet initiatives to safeguard the mental health of construction professionals still fall short, particularly in smaller construction companies. Due to the often-stressful nature of work on site, the mental health of construction professionals can be affected, impacting both home and work life. The aim of this pilot study was to investigate the levels and sources of such stress on site, evaluate the impact and to investigate the uptake and success of interventions. Sixty-two semi-structured interviews anchored on 5 stressor categories- organisational, task, personal, physical and industry characteristics were conducted. The data shows that the negative impact of stress on mental health is exacerbated by factors such as stigma, lack of understanding of mental health and a lack of awareness of and engagement with mental health education and support initiatives on site.

Keywords: professionals; impacts of stress; interventions; mental health; stressors

INTRODUCTION

In 2019, 26% of construction professionals thought about taking their own lives, 97% recorded being stressed at least once (CIOB 2017) - this can only be described as a frightening statistic. Anyone can suffer from stress and mental health issues, but the incidence is significantly higher in construction sector. Factors that contribute to stress in the construction sector include moving locations, tight schedules, job insecurity and cashflow uncertainty, all of which are due to the nature of the business. Recently social and government focus has been on mental health in construction because of rising suicide numbers due to male dominated construction sites being relatively unaccepting of mental health as an issue as many men see mental issues as a topic not to be discussed openly. Even though the issue has been a hot topic in recent years, the construction industry has been slow to adapt to change and introduce solutions even though for example, over 50% of men who committed suicide in Ireland in 2013 worked in the construction industry (CIF 2013). The recent COVID-

¹ drjgmbradley@gmail.com

19 pandemic created what may be considered a 'perfect storm' of factors impacting on the mental health of construction workers due to the nature of the business and its vulnerability when the economy contracts (King and Lamontagne 2021). High stress levels can have many negative effects on the person, the site or company. Stress has many effects such as lack of concentration, avoiding other work colleagues, becoming easily agitated or moody, having difficulty relaxing or feeling low or depressed and can unfortunately lead to serious mental health issues. When such factors come together and are not dealt with correctly, they can have a serious impact on a site through lower productivity, absenteeism, and staff turnover (Greden 2017).

This investigation used semi-structured interviews and a questionnaire-led survey executed with a panel of 62 construction professionals to gather relevant information on three main themes. Firstly, the level of stress and the impact it has on the mental health of construction professionals. Secondly, construction professionals' awareness of interventions and knowledge of how they can avail of such interventions. Lastly, why the construction industry has been slow to adapt to change in comparison to other sectors. There needs to be more collaboration between the organisations within the construction industry to make a sectoral change. Some organisations are training staff as 'Mental Health First Aiders' to ensure mental health is being managed effectively on construction sites (CIOB Mental Health Week 2020). Some of the main reasons why the construction industry is yet to apply the necessary training and solutions are the cost, time, and access to supports that are available.

There appears to be a knowledge gap in that the focus seems to be on workers mental health and the responsibility of managers and professionals on site to ensure that they recognise the issue in their workforce and implement interventions to help. However, the mental health of the managers and professionals themselves in the Irish and UK construction sector seems to have been neglected. This investigation into the mental health of construction professionals is intended to raise awareness and offer recommendations that could help all the associated parties.

LITERATURE REVIEW

The National Institute of Occupational Safety and Health in the US defines stress as "The harmful physical and emotional responses that occur when the requirements of a job do not match the capabilities, resources or needs of the worker" (NIOSH 1999 p5). Generally, a good balance between peoples' work and non-work lives is an important contributor to their overall psychological wellbeing. A poor work-life balance has been seen as the primary cause of occupational stress (Industrial Society 2001; Faragher *et al.*, 2004). The construction industry is characterised by high rates of work-related accidents and challenging timelines, it also features non-permanent positions, risk of personal injury and long working hours (Campbell 2006, Heller *et al.*, 2007). These factors can accumulate to generate a stressful lifestyle for construction workers. It is suggested that in the construction industry work-related stress has become known as a problem in the workplace and is also commonly found to transfer back into family and personal lives at home, thereby compounding the negative impact. (Love *et al.*, 2010:650 cited in Hanna 2019).

In the management of construction projects, uncertainty and high risk can lead to excessive levels of work-related stress and work with experience, project size and complexity and level of education identified as factors that can affect project managers ability to cope (Haybes and Love 2004). These are not the only elements involved as stress can also be related to home-life and brought to work (Lingard and

Francis 2003) so factors other than work are involved in the formation of stress and its manifestation. A systematic review of mental stressors in the construction industry identified 5 main stress categories (Tijani *et al.*, 2020):

1. Organisational stressors can be defined as the sources of stress originating from the organisation (Leung *et al.*, 2009). Poor organisational structure entails the presence of bureaucracy and hierarchies, supremacy of rules and unjust treatment in the construction industry (Enshassi and al Swaity 2014).
2. Task stressors are ascribed to job characteristics that shape the mental state of the workers (Enshassi and al Swaity 2014). These can include project overload, tight time frames and project role ambiguity. Construction project managers often suffer from excessive project workload due to demanding time pressures and the structure of a project. On average construction workers work 60 hours per week and are subject to the nature of the construction firms and complexity of construction (Love *et al.*, 2010). Long working hours is a core contributor to work-family conflict and occupational stress, which cause high staff turnover in the construction industry (Sunindijo and Kamardeen 2017).
3. Personal stressors due to the private and personal life of the worker that may affect their mental health (Leung *et al.*, 2008). Type A behaviour can be defined as the action-emotion complex that entails hostility, aggressiveness, competitiveness, and a sense of time urgency (Suntherland and Cooper 1990). Construction professionals such as construction managers and architects are more susceptible to type A behaviour because of their competitive working environment (Leung *et al.*, 2008).
4. Physical stressors are described by (Leung *et al.*, 2009) as environmental sources of stress inherent at either home or at work. Physical stress is predicted by job certainty, co-worker support, and safety equipment (Leung, M.Y., Liang, Q. and Olomolaiye, P. 2016)
5. The construction industry is notoriously conservative, male-dominated and emphasizes performance under pressure (Carson 2019). Male-dominated culture in the construction industry creates stressors that affect the mental health of the female construction workers (Marshall 1990). Gender-related stresses include sexual harassment, gender inequality and limited job opportunities. (Sang *et al.*, 2007) states gender inequality in the construction industry results in the premature exit of female construction workers and explains the negative interaction between gender inequality and mental ill-health among female construction workers.

Work overload, unrealistic deadlines, poor interpersonal relationships, poor work environment and poor work-life balance are clear factors that cause stress and are involved in its formation and manifestation (Lingard and Francis 2003).

Unfortunately, there is shame associated with middle aged men and mental health which results in a reduction in the number of men who seek help (Hanna 2019).

Mental health issues within the workplace can have serious consequences not only for the individual involved but for the workplace as a whole (Janusonyte, 2019). In recent years, the industry has made large improvements in the health and safety sector focused on physical elements. The literature has shown that individuals working in the construction industry are at an increased rate of suffering from mental health conditions (Oswald *et al.*, 2019). Yet mental health has to date been the "poor cousin" to physical health and safety.

The world of work has changed over the years and has led to several new or increasingly prevalent psychological risks such as new forms of employment and intensification of work (Milczarek 2007). However, remaining in work has been shown to have a positive effect on maintaining social networks and providing a sense of purpose (Le Masters *et al.*, 2006, Damman *et al.*, 2013). Participatory ergonomics is an approach which has been shown to be successful in several industries. Previous research has shown that by using elements of participatory ergonomics such as bottom-up approach together with good management support and key stakeholder involvement, means significant benefits can be achieved for workplace, job and equipment design and healthy working behaviours (Rivilis *et al.*, 2008, Tappin *et al.*, 2016). A 2016 study demonstrated that workers can be encouraged to share ideas to improve their health at work (Eaves *et al.*, 2016). Involvement of the workforce in developing solutions/decision-making can lead to positive changes and managers and supervisors should consider ways of encouraging this.

Aside from the individual burden of common mental health disorders, work productivity in the construction industry may be critically reduced when the workers suffer from mental illness. This may lead to a higher risk of accidents and injuries on the job (Beseler and Stallones 2010; Kim *et al.*, 2009). In other words, construction workers need psychological and mental capacities to maintain their concentration and alertness to manage the variety of onsite hazards throughout the workday. These capacities are likely to be impaired when the worker suffers from mental health complaints (Boschman *et al.*, 2013). The need for recovery after work is a sign of occupationally induced fatigue and a predictor of adverse health effects, (Sluiter *et al.*, 1999) found that the need for recovery after work was significantly higher amongst supervisors and managers. (Alavina *et al.*, 2009) found that lack of job control, lack of support and dissatisfaction with work were significantly related to sick leave. Low participation in decision making and low social support from the direct supervisors are additional psychosocial risk factors for symptoms of depression among supervisors (Boschman *et al.*, 2013).

METHOD

Literature review is a common method in construction management research for advancing the body of knowledge on specific topics (Li *et al.*, 2014). A total of 39 papers, identified using key word search terms such as stressors at work, construction industry mental health, mental health interventions in construction)) across databases including Google Scholar, Web of Knowledge and Science Direct were used to analyse the topic of Mental Health in the Construction Industry. From the literature, numerous stressors associated with construction work attribute to a high suicide rate in the construction industry in comparison to any other sector. Therefore, the likelihood of interaction with a construction professional with poor mental health is quite high. Due to recent COVID-19 restrictions all one-on-one interviews guided by a suitable questionnaire were carried out over organised Zoom calls once the consent to participate were returned to the researchers. The interviews were designed to determine construction professionals' knowledge of stress and gauge their awareness of resources available to them. Since the topic being discussed is both personal and confidential, one-on-one interviews were preferable to a group discussion where participants would be slower to talk about sensitive topics.

The participants interviewed had to meet 3 main criteria - they had to be currently employed as construction professionals, with relevant on-site experience and to

consent to participate. The companies engaged were all currently working on construction projects in either the UK or Ireland as either main contractors or sub-contractors. Participants were solicited through a Linked-In post looking for participants as well as through direct contact from the researchers. Participants' details were verified at the start of the interview prior to their data being included in the study. Participants could also withdraw at any time during the process. All data gathered from all individuals was anonymised and securely stored. To guide the semi-structured interview, a questionnaire with 34 questions was used to gather data relevant to the three themes as outlined in the introduction. The questions were formatted as open, multiple-choice, Likert scales or required Yes/No responses.

FINDINGS

There were 64 interviewees (60 male and 4 female) from 20 companies ranging from small companies with <10 employees up to large companies with >1,000 employees. Participants were classified as Site Manager (12), Site Engineer (14), Project Manager (18), Quantity Surveyor (8), Health and Safety Manager (3), Contracts Manager (3) and Other (6). As a general comment, even though the interviews were designed to get the most information possible from the interviewee, some answers were short, perhaps an indicator of the difficulty in discussing the topic of mental health. A very telling comment from one participant was that 'we are to report when we feel stressed, but in reality, it makes you look weak in the workplace'.

Levels of Stress and its Impact: The data showed that mental health issues were clearly a problem that everyone who was interviewed faced, with all participants, 37% of whom have worked in the industry for 10 years or more, agreeing that they regularly feel stressed at work. This mainly related to a culmination of project overload and tight time frames. Long working hours also emerged as an issue however most workers were compensated for long hours by easily receiving time off, high salaries and other benefits such as company vehicles.

Workers were convinced they have adequate time to spend with friends and family on their time off yet reported that family members do not seem pleased with their working hours, possibly due to work affecting interviewees when they are at home, sometimes due to carrying stress home, having to take phone calls or reply to emails. In relation to organisational stressors, 40% of participants scored home/work conflict the highest. It may have been interesting to investigate this topic more in relation to divorce, however this was deemed as being too personal and could have turned the participants off from completing the interview. Interestingly 77% of the interviewees with >10 years' experience stated they work through their lunch break. In their 'spare time' at home, 50% of participants reported using exercise or getting plenty of sleep as mechanisms to de-stress, while talking to others scored only 23% in total but interestingly 75% of female participants stated this as a coping mechanism. The task stressors that scored the highest were project overload reported by 33% and long working hours by 25%. Just over 40% reported that both these task stressors combined, account for some of their stress. It was found that 72% agreed that a construction professionals role consists of unpredictable working hours which can lead to ill health from factors like stress and burn-out from being overworked. Commuting to work averaged at 75 minutes however the workers home location is not usually taken into consideration when moving sites with 16% of workers travelling over 4 hours a day for their work commute. Interestingly, only 1 out of the 62 interviewed reported that in their organisation people were 'if possible, put on jobs

closer to home'. Why is Construction slow to adapt? By examining stress, it became clear the reason the industry is slow to adapt is that construction professionals do not talk about the detrimental effect it has on them or highlight how bad the issue is when questioned about it - possibly due to the reticence of males to talk about issues. Findings show that older men tend not to discuss their mental health freely, with 50% preferring to say there's no issue rather than talk about it.

This was even though 70% admitted to being regularly stressed at work, with 87% of these specific interviewees saying they regularly bring their work-stress home with them. It was found that 49% of respondents found it uncomfortable to talk about their mental health issues with others while 87% of these respondents said they were affected by long and irregular working hours. It was also reported by 40% of interviewees that they have problems with superiors, with companies trying to cut costs and maintaining a reduced workforce. However, when questioned further on these topics the answers became sharp and short, some interviewees even trying to retract what they had said initially. Despite the long hours, the stress involved, and the fact family and friends are not pleased with their current roles, 75% of professionals are happy with their current role at work and would choose the same career path if they had the choice again. Even after highlighting the negatives, the interviewees felt healthy in general whilst dealing with numerous negative factors that were clearly present.

Awareness of Interventions: Since middle-aged men are slow to talk about their mental health (Karpansalo, M *et al.*, 2005), interventions need to be brought to them to show that there is help available. During the CIFs construction safety week 2020, Monday's topic was 'Mental Health, Welfare and Wellbeing in Construction'. Results showed 68% of interviewees did not participate in this event intended to help highlight symptoms and indicators for poor mental health plus identify available interventions. Awareness of interventions on construction sites was low, almost 50% were unaware of any intervention on site.

Usually, mental health toolbox talks were given by Health and Safety officers, however 30% were given by people outside the company who have experienced mental health issues of their own. When asked do mental health toolbox talks occur on site, only 45% said they did. However, when asked what interventions they were aware of on site the most common was toolbox talks. Therefore, even though the workers are aware that mental health toolbox talks are an intervention for mental health issues on site, they do not take place on over half the sites so over 30% of interviewees have no intervention available on site for mental health issues. Other interventions they were aware of include support from upper management and Pieta House (a suicide prevention charity in Ireland). A positive that can be taken from the data analysis is that 59% of professionals stated they can easily get time off work which proved to be an intervention also scoring highly in dealing with stress from work. However, when questioned on work-life balance, comments were made that included 'main contractors do not consider this as it's all about time frame and completed projects' and that 'like most construction companies they let on they provide a good work-life balance, but they don't' indicating that this is a problem within the industry.

The findings will be further examined in the discussion with some recommendations suggested for tackling the problem of mental health of construction professionals.

DISCUSSION

From a review of the existing literature and the research undertaken, there is an apparent lack of understanding of the seriousness of how stress can affect construction professionals' mental health. However, there is a correlation between participants' years of experience and how stressed they are at work. The more experience, the more stressed the workers seemed, possibly due to longer working hours and extra workload - both significant factors causing stress. Another factor was home relationships, younger more junior construction managers did not usually have the responsibility of a partner and children at home, nor were they significantly impacted when moving from site to site and as a consequence were less stressed. Investigating the mental health of construction professionals proved that stress has impacted every participant to some extent. While organisations are trying to stay within budgets and deadlines, their workers would benefit from increased support from superiors to lighten their workload and enable them to work in a less stressed environment especially during busy phases by having additional resource capacity. Tight time frames and project overloads are another reason why the construction industry is so slow to adapt as men can feel they are "too busy" to engage in other activities apart from their work.

The preferred forms of relieving stress were activities which could be carried out independently such as exercising and getting plenty of sleep. Only 23% of the interviewees stated they would talk to others to relieve stress. It was found that 72% were affected mentally by the unpredictable working hours. Days become longer and more stressful towards the end of a project, especially on projects which fall behind schedule, this can have a major toll on one's state of mind at work and at home. In fact, 40% of the interviewees stated that the task stressors which affect them the most were long working hours and project overload, a worrying fact that could easily be resolved through better scheduling and resource management throughout the project and have a significant positive impact on work-life balance.

Even though the CIOB and CIF are trying to highlight the issue and provide interventions, companies are not taking such interventions into consideration. Clear evidence found this study that backs this statement is that only 32% of the interviewees participated in Monday's topic of 'Mental Health, Welfare and Wellbeing in Construction' during the CIFs construction safety week in 2020. Companies feel they do not have adequate time to be completing toolbox talks or taking time to discuss the mental health of their employee - highlighted by the fact that the most common intervention on site was mental health tool-box talks - yet only 45% of the participants said such talks took place on their sites. Tool-box talks where an 'outsider' came to site to discuss stress and mental health issues they had suffered were seen as very effective. Seeing a middle-aged man open up about his mental health in front of a group workers he did not know helped a lot of men see that there is more to life than working 60-hour weeks. A recommendation that can be made from this investigation is to make mental health toolbox talks as important as inductions and site meetings. Another interesting was the way the participants reacted when asked questions in greater detail, in that they responded in a short, snappy way and sometimes they physically moved back or away from the screen!

The clear absence across all participants regarding awareness, availability and uptake of mental health interventions shows a need for the targeted distribution of information regarding mental health awareness in the sector. It could be argued that

the construction industry unintentionally promotes poor mental health conditions by being blind to its existence, instead focussing on the development and reputation of companies delivering projects on time and within budget without due care for their workers mental health.

CONCLUSION

From the data presented above the management of stress and the mental health of construction professionals has been lacking in the past. With most interventions only really beginning in recent years, the positive affect that it is having on the workers cannot be properly measured yet. However, it seems that most of these interventions are seen as just a task to be completed on site to tick the compliance box, yet companies promote to the outside world the care they show for their workers through social media platforms - described as 'soft talk' by one participant! Consideration needs to be placed in managing the day-to-day issues which arise on site that contribute to causing poor mental health. This should include preventative measures such as better project management, resource management and communication practices through to remedial and support activities such as allowing space for mental health to be discussed and encouragement to engage with available interventions. However, a significant barrier is that seeking help for their mental state deems a person weak or unstable- this outlook held by men, and older men in particular, needs to change. It can be concluded that while supports and programmes are essential for good mental health, the approach to the provision of, and engagement with, these supports must change to have a significant impact on improving the mental health of professionals working within the construction sector.

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