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Constructing better health and wellbeing? Understanding structural constraints on health and wellbeing in the UK Construction Industry

Abstract

The construction industry has high rates of work related ill health and early retirement due to stress, injury and illness. Whilst there have been more recent calls for a 'health like safety' narrative within the industry, health has still predominantly been viewed via health risks rather than a more holistic conceptualisation of health and wellbeing. The workplace is viewed as a fruitful site for health promotion work, yet we know little about the possibilities and promise of health promotion and health improvement work within the construction industry. This paper explores the views of stakeholders with health-related roles and responsibilities within the construction industry to examine their views of the landscape of the construction industry and its relationship to the health and wellbeing of the workforce. Through exploring two key themes; the construction industry as anti-health promoting and understanding industry specific health issues, greater insight into the challenges that exist within construction for promoting positive employee health and wellbeing are explored. The unique insights of those 'inside' the industry provides a clear exposition of the challenges faced by those seeking to construct better health and wellbeing and we argue that only through understanding the structural constraints of the industry in this way can the possibilities and potentials for undertaking health promotion work be fully embedded within the industry in order to help create meaningful change for both employees and the industry as a whole.

Keywords: Construction, Workplace health promotion, structural constraints, Health and wellbeing

Introduction

The construction industry has been seen to have one of the highest rates of work-related illnesses across occupational groups (McGlone and Baker, 2009; Brenner and Ahern, 2000). Construction workers, as blue-collar workers, are suggested to be 'at the bottom of the socio-economic power gradient and have poor health outcomes, higher rates of disability, chronic disease and mortality' (Du Plessis et al., 2013 cited in Fenton et al., 2014: 16). Reasons for poor health are often seen to be due the prevalence of musculoskeletal conditions, such as back injuries, fractures, fall injuries or arthritis, among construction workers as well as respiratory issues, both of which can be seen to be related to the features of the role (Brenner and Ahern, 2000; Ajslev et al., 2013). Existing research also suggests that the nutrition of construction workers is viewed as poor (McGlone and Baker, 2009) and poor nutrition has been linked to chronic disease among construction workers, and can be a factor which impacts on workforce performance, including injuries and accidents (Okoro et al., 2016). Given the makeup of the construction workforce remains predominantly male, issues of masculinity and the linkage with negative or poor health have also been seen to exist in relation to the construction industry (Stergiou- Kita et al., 2015). Men are routinely less likely to seek help for health issues (O'Brien et al., 2005; Mahalik et al, 2007) and more likely to demonstrate stoicism in the face of pain or ill health (Ajslev et al., 2013 cited in Stergiou- Kita et al., 2015: 217). The workplace can be seen to be a site where such gendered responses to health can be further constructed and displayed (Ramirez, 2011).

Construction is also seen to be an occupation which involves high stress (Fenton et al., 2014; Bowen et al., 2013) which can impact on workers psychological and physical wellbeing (Love et al., 2010). Work related stress is seen to lead to low productivity, higher than usual absenteeism from work and poorer performance at work (Bowen et al., 2014; Black, 2008). It is also reported that 'Males in the construction industry are at greater risk of suicide than those in the general working population' (Milner et al., 2015: 1). It is suggested that 'In the construction industry work-related stress has become an inherent feature of the workplace environment and can negatively transcend into the family and personal lifestyles if not appropriately managed' (Love at al., 2010: 650). Sources of stress that have been identified for construction workers include; too much work, uncertainty about roles, unpaid overtime, lack of career progression, client demands, redundancy, and financial pressures (Love et al., 2010).

Poor health within the construction workforce has been suggested to ultimately foreshorten the working lives of employees (Ajslev et al., 2013). Brenner and Ahearn (2000) found that the mean rate of retirement on ill health grounds within the construction sector was 5.3 per 1000. Other studies have found rates of 2- 2.5 per 1000 in other industries, such as manufacturing, emergency services, postal work and teaching (Poole, 1997). Retirement due to ill health within construction is then seen to be a significant issue, 'the impact is greater when retirement takes place at a relatively young age; the study showed that 17% of those retiring were under the age of 50 years, accounting for 45% of the potential working years lost' (Brenner and Ahern, 2000: 620), however relatively little is known about workers who have left the industry, and how their health impacts on their lives once they have retired (Ajslev et al., 2013).

Whilst some of the health issues within the construction industry have been identified, typically within the industry employee health has historically not been given the same precedence that safety has within the industry (Build Health, n.d.; Tyers and Hicks, 2012). Safety has, rightly been a focus of key attention, reducing the numbers of deaths and serious injuries at work has been a major achievement of health and safety work within the construction industry, but often this has occurred at the expense of focusing on health and wellbeing (Tyers and Hicks, 2012). There are also seen to be further barriers around health promotion with the industry, for example, construction companies have often shown concern around the cost of health interventions (McGlone and Baker, 2009) and whether workplaces should be intervening in the health and wellbeing of their workers at (Sherratt, 2015). Research also suggests that the structural make-up of the industry, with the prevalence of sub-contracting, makes it challenging to implement health and wellbeing policies and practices across sites as each company will have their own policies and procedures (Fenton et al., 2014). Short term projects can be part of the culture of construction work, again making sustainability and continuity in relation to health and wellbeing initiatives more complex and less achievable (ibid) but further insight is needed into these aspects in order to fully understand any barriers to health promotion work within the construction industry.

Whilst the workplace has been viewed as a potentially useful site for health promotion activities (Goetzel and Ozminkowski, 2008; Kuoppala, Lamminpää and Husman, 2008; O'Donnell, 2001), most industry based interventions target workers over a broad number of industries and do not design programmes specific to sectors (Fenton et al., 2014) which can make activities too broad to be relevant to employees whose sector may engender particular health and wellbeing issues. Working closely with workers and those in the industry to design appropriate interventions which are more 'ground up' is thus seen to be a potential approach to address context in construction industry for health promoting interventions (Milner et al., 2015). Considering how interventions can influence the health of those in the workplace is also suggested to need consideration of lifestyle factors and how they intersect with

work (Arndt et al., 1996) as well as ensuring interventions consider the employers role in the promotion of good health (IOSH, 2012), not just focusing on the individual level of health and wellbeing but the wider structural aspects of work that affect health and wellbeing (Brenner and Ahern, 2000). In order for successful health promotion work to be undertaken, understanding the needs of both the industry and the employees remains key.

This paper then explores the landscape of health and wellbeing within the UK construction industry. Utilising a case study approach the research explores what the key health and wellbeing issues are seen to be within the industry by those who are working in health and wellbeing related roles. The paper allows the voice of those working within construction to illuminate the makeup of the construction industry and its relationship to the health and wellbeing of the workforce. The paper then provides a qualitative evidence base around health and wellbeing within the construction industry, building on knowledge around the health and wellbeing of construction workers and providing new insights into the broader structural features that may create challenges or opportunities for building better health and wellbeing within the industry.

Methodology

This paper is based on qualitative semi-structured interviews which were conducted with key stakeholders from four case studies drawn from across the UK construction industry. This paper is part of a wider study, and the cases were selected for their size as well as for variance in types of construction work undertaken by those firms. The cases were recruited through industry networks and groups and through key contacts provided by the project steering group. The case studies were comprised of construction firms of varying sizes and types and included two large general construction firms (one which conducts house building and the other large commercial building projects) and two medium sized scaffolding firms[1]. The firms were all located within England, one large firm was a national company, the other worked across the North of England and the two medium firms were based in Yorkshire and Herefordshire respectively. This qualitative data formed part of a wider project into the health and wellbeing of the construction industry which included other work packages, including a literature review and environmental scan of best practice projects to support positive health and a survey of 286 construction workers about their health and wellbeing (See AUTHOR 1).

The interviews were conducted with key stakeholders within the four case studies detailed above and the criteria for 'stakeholders' were people whose roles including a responsibility or focus on health and wellbeing. The participants were an equal mix of those who identified as being in management and those who were employees, and the sample represented different roles and positions of responsibility within the firms, including site managers, site foreman, first aiders, health and safety officers, risk assessors, workforce development officers as well as company managers. Some of those who were working in management roles had themselves previously worked on site in a trade, so were able to see both sides of the management/workforce picture. There was a broad range of experience and most had worked in construction for over 10 years. The participants were recruited through a gatekeeper, who was a key contact in each site who put us in contact with potential participants and shared information about the research within their companies, in each of the case study sites and participation was voluntary. In total we conducted 19 recordings with 21 people from the four case studies (the difference between numbers of recordings and participants being due to the choice by 3

[1] We have taken the size of firms to be: small firms having less than 50 employees, medium being 50-249 employees and large being 250+ employees and above.

participants to undertake a group interview- so N=18 were individual interviews and n=1 group interview of 3 persons). Twenty of the interviewees were men, and one women, which is perhaps reflective of the predominant male makeup of the industry. Whilst we did not capture extensive demographic information for the interview participants due to this not being a key feature of the study, all of the interviewees were white British and ranged in age from 20 to the oldest being in their 50s. Care was taken in the construction of the sample to ensure that a range of workforce experience would be captured. Most, as noted above, had worked in construction for a considerable period of time and were therefore well equipped to comment on the nature of the industry and the health and wellbeing issues they identified. The interviews ranged in length from 15 to 70 minutes and the digital recordings were transcribed verbatim on completion. Interviews were conducted face to face where possible, with most being conducted on construction sites where the participants were located, or in their company offices, although three were conducted by telephone due to the preference of participants. The interviews were conducted during May- September of 2016. The interview questions were devised by the studies lead (the lead author) and sent for comments and then agreed with the steering group for the research, which was comprised of experts from within the construction industry, trade unions and the Health and safety executive. The interview schedule asked questions around health and wellbeing needs, priorities, how health and wellbeing is currently supported in the industry, examples of existing best practice and how participants feel health and wellbeing could be more integrated within the construction industry.

All the interviews were conducted by the lead author, who also led the analysis. The interview data was analysed thematically using the steps laid out by Braun and Clarke (2006) by the lead author, with theme checking and discussion with the authors before agreement of the following two themes: The construction industry as anti-health promoting and Understanding industry specific health issues. The research gained ethical approval from the [UNIVERSITY NAME BLINDED FOR REVIEW] university ethics committee (ref: 24492) and all quotations included in this paper have been anonymised and are presented in the format of Participant and a number, e.g. Participant 1, to maintain the anonymity of those who have taken part.

Analysis

The construction industry as anti-health promoting

Even when companies desired to focus on or help improve workforce health, Interviewees identified that there were key features of the industry that created structural constraints or barriers to health promotion within the workforce. These will be examined through four sub-themes, which include; the type of workforce in the industry; working equals earning; competition and client agendas; and variance across the industry.

The type of workforce in the industry

The construction industry was viewed as one which is divided into a directly employed and sub-contracting workforce, and there was seen by many of the stakeholders to be a challenge around the transience of working relationships and the workforce itself in relation to engaging in health promotion activities or practices;

> 'It is such a transient market with labour, construction is, that is very difficult to say my long term plan for this person is x, y, z because in a year or six months they might have moved on. It is very difficult' (Participant 6)

This sub-contracting was seen by some as becoming more entrenched within the industry over time;

> '20 or 30 years ago, they've have all been directly employed by companies, whether they'd be a bricklayer, scaffolders, so the industry has changed' (Participant 11*)*

The layers that make up the workforce was also seen to be a cause of confusion regarding whose responsibility health and wellbeing was, particularly when employees are directly employed by one firm, but working on projects as sub-contractors for other companies;

> 'I know a subcontract company that had a problem with someone on drugs. And they kept it to themselves. They couldn't tell the principal contractor, but they confronted the guy. They did everything that was right…But as a contractor, you'd say, we'd say, 'he's not coming to our job'' (Participant 8)

This example highlights some of the complexities that stakeholders saw around the workforce in relation to responsibility for health and wellbeing and the difficulties of creating transparency across and between the different layers of a workforce that is sub-contracted and directly employed. There was therefore a view that construction was just 'how it was' and that this was quite fixed and potentially a major challenge for overcoming barriers around improving or promoting the health and wellbeing of the workforce.

Working equals earning

A by-product of a sector comprised of high levels of sub-contracting, self-employment and transient workers, was seen to be the direct equation between working and earning. Some stakeholders felt that the workforce were just not interested in health promotion or improvement, focusing instead on getting on and working to earn;

> 'I am only going off what I see and I just think they are not interested. They just want to come on, work and earn money…but the feel I get from people is they will always buy into stuff but it is about the work, that they need to earn their money. That sounds bloody harsh but it is the reality' (Participant 1)

Others felt that the restrictive nature of the working equals earning equation was damaging for health as employees were reluctant to take time off;

> 'That is why people don't go to the doctors because I can have a doctor's appointment tomorrow for this or I can go to work' (Participant 2)

> 'They don't wanna say they're ill cos they don't wanna take the time, they're not gonna get sick pay …they just can't afford to take time off. They've got their mortgage to pay, they've got shopping to buy. You just can't afford it (Participant 10)

This was then seen as a compounding factor for health problems, in which 'carrying on' was seen as the norm, and trying to self-manage injuries or injuries was viewed as part of the solution.

> 'they have this pressure that is they have any time off, then you know, it's gonna affect their home life, so they'll just soldier on through, through aches and pains and then they'll probably drink more to ease the aches and pains and it's just like an ever-decreasing circle of poor health' (Participant 5)

Those who were directly employed were therefore seen as being at an advantage in the industry when it came to doing health work in that they would be entitled to sick pay and related benefits, and so it

was seen that they could afford to take care of their health compared to those who were unable to access direct benefits;

> '…we have a lot of our own guys who are on the books, so they get sick pay. They get looked after, if that makes sense. But a lot of people are sub-contracted. Then they get nothing if they're ill. If they're not here- my [relation] is a bricklayer and when he's sub-contracting, if he's sick, he doesn't get paid' (Participant 7)

Time to focus on health was therefore not viewed as part of the industry as the structure of the sector did not allow for the workforce to prioritise health, earning income was viewed as fundamentally more important. Whether this prioritisation has become more ingrained since the financial crisis of 2007/2008 which substantially affected construction requires further exploration and examination.

The competitive edge and client driven health agendas

Interviewees all discussed how the construction industry is characterised by its competitive nature, i.e. tendering to win work in direct competition with other companies, which some saw as restricting the amount of resources or opportunities for enabling health promoting activities to occur. As one interviewee stated, 'we are here to make money' (Participant 19). This perception of an industry that is competitive and pressurised was viewed as a constraint in creating space and time for health and wellbeing work with the workforce;

> 'I think especially in construction, there is a lot of stress and that but there are deadlines all the time for everything. You have to do one thing to get the next thing done to get the next thing done…and then if you've got an afternoon away talking about eating five a day fruit and veg people are like bloody hell, I've got other things to do' (Participant 16)

Additionally, the competition between firms means that interviewees all felt that limited sharing of best practice for health and wellbeing occurred between firms;

> 'I suppose other companies are doing the same sorts of things that we are doing that are site specific…I am sure other companies are doing the same sort of thing but we don't get to hear the details' (Participant 19)

Clients were also seen as being a big motivator for health agendas within the industry and the demands of larger clients were often seen as rationale for why a focus on health and wellbeing was emerging within some companies but not others;

> 'We've recently started doing, fit for work medicals. I think it's every two years, they've got to start those now, but that's mainly- that's been driven by the- our clients that we work for' (Participant 5)

> 'I've noticed that health has taken a bigger role within this…I think it's a lot driven by our clients and legislation as well is putting more emphasis on companies to take more responsibility regarding the health of their employees…over the last four years we're more aware of health assessments, pre-employment health assessments is what we've introduced…and then we do drug and alcohol testing on a regular basis…a lot of it I must admit is client drive because of the type of work, the type of sites we go on- we work for [rail company] so you can image their procedures are quite strict' (Participant 12)

Clients therefore want to know that the workforce engaged on their projects were fit for the required work and some saw that part of this is about risk management rather than health promotion;

> ‘We are finding that health surveillance is important. We in our company do medicals because we are classed as critical workings because we are working at heights…it is customer driven, so a lot of our customers demand us to have their certification’ (Participant 6)

Whilst clients therefore have the potential to drive agendas, this remains a top down approach and again was viewed by stakeholders as being part of the competitive nature of the industry but also as often being part of a bureaucratic exercise, rather than motivated by a desire to improve workforce health;

> ‘It’s their responsibility. It seems like a lot of things that we do, it’s just box ticking, outside covering. I think it’s more of a box ticking exercise, and it covers companies probably just for insurance purposes…I think it’s more about that than the actual health and wellbeing’ (Participant 13)

Competition and client agendas can then create a focus on health and wellbeing within the construction industry, however the motivation for such focus may itself not be compatible with genuine health promotion or health improvement activities, rather may be further mechanisms for risk management and the creation of top down pressures on employees.

Variance across the industry

Large companies, or companies perceived by stakeholders to be of ‘higher quality’ (which in itself reveals in inner hierarchy in the construction industry) were seen by most of the interviewees as being more focused on health and wellbeing. Smaller or ‘lower quality’ firms were seen as underperforming, even in terms of basic aspects of health and safety which have long been seen as requisites within the industry, and health and wellbeing being even further behind in their agendas. Smaller companies by virtue of the type of clients and work they may be doing were views as being less heavily monitored, and client agendas around health and wellbeing as discussed above were seen as less applicable to smaller companies;

> ‘…we are not talking about the small to medium building companies out there. They are way off, absolutely miles away’ (Participant 6)

Whether smaller companies are able to provide more team support and camaraderie as compared to larger companies was not explored by the stakeholders but could be an important aspect for exploration in future research, particularly around mental health. Larger companies were viewed as being more able to offer health and wellbeing initiatives as a positive feature to be an employer of choice and attract and retain workers;

> ‘I think this kind of thing only happens in your bigger firms…and if you want to, I suppose, pull in and keep the people you’ve got to offer something’ (Participant 16)

The size of contracts that firms held was also seen as a barrier (or facilitator) to engaging in health and wellbeing work;

> ‘I mean this is a £15 million project and it’s a lot easier...these jobs are a lot easier to promote things like this [health and wellbeing], whereas if you’ve got a small job where everything is tight…our standards are generally good throughout whatever site you go onto. It’s not always the case, but whatever site you go onto, and however big and small, the procedures should be there, they should be the same’ (Participant 7)

Small companies were thus seen to be operating within tighter margins, and larger companies potentially, due to the type of contracts and clients they had, were more able to allocate space and resources for engaging in health and wellbeing work.

Industry specific health issues

Interviewees believed that there were specific types of health issues facing those who work in construction, and believed that these contextual features were important for understanding and considering how health and wellbeing could be usefully promoted and engaged with within the construction workforce.

Differences between layers of industry: managers versus employees

Some stakeholders discussed that not all roles within constuction are manual or physically involved, and thus there are seen to be different health and wellbeing issues between desk-based construction roles compared to those working on-site;

> 'So [my work is] probably different to what some of the other guys do in and around site sort of doing the work in that 99% of it is done sat in the office doing paperwork and reports' (Participant 19)

Some interviewees' also felt that there could be health challenges for those who stopped working on site and moved in to management;

> 'I mean since I stopped working on the spanners, my eyesight has gone terrible sitting in front of a computer. I am now wearing glasses. There are drawbacks in everything. When I worked outside, you are very, very rarely ill. I never had any colds. Despite you working outside, like I say your eyesight, you are fresher…I still miss working outside. I am now sat in front of a desk all day' (Participant 6)

The modern construction industry is therefore comprised of varied layers of employees fulfilling different roles and as a result a one-size fits all approach to health and wellbeing is unlikely to succeed;

> 'A guy digging a hole all day might need steak and kidney pie, chips and peas...and he'll be as skinny as a rake. Whereas the manager, who's not so skinny, might need the salad, because he's never really going to burn off any of the steak and kidney pie, chips, peas and gravy' (Participant 8)

> 'I think that's the problem with IT as well and it doesn't go off. And because you know that if you go into work on Monday and you have loads of emails… I don't think the lads have that effect as much. I think management have that as an issue, but I think the lads generally can, they can leave on a Friday and then that's' it. Shut off. And they're not worried about what happens 'til they get to Monday. I think management is totally different though' (Participant 7)

The tendency to consider the health and wellbeing needs of those working within construction as focused on those doing manual site based work is then perhaps detrimental to the wider industry workforce and any promotion of health and wellbeing needs to be able speak across the different roles that together constitute the industry.

The foreshortening of working life in construction

Interviewees all felt that construction, for those who do work in manual and on-site roles, was an industry which took its physical toll on the workforce. Many noted the proportion of people who left the industry due to ill-health and particularly through musculoskeletal issues;

> '…traditionally they had quite a short working life span, because it was so physical…some of the guys have got an exit plan, you know, they'll be lorry drivers, it's definitely a young man's industry' (Participant 5)

> 'I don't see how people can work till the retirement age in this industry, doing the physical jobs' (Participant 13)

Some felt this short working life was particularly relevant for some elements of construction, such as scaffolding or dry lining, were there was seen to be the existence of highly physical work on a daily basis;

> 'There is a lot of bodily strain, there are not many scaffolders that retire as a scaffolder. They don't make it' (Participant 4)

> 'I don't know anybody that's retired at 65 as a scaffolder. They've had to finish a lot before then…when you're 16, 17 and you come in, when you get to 40 and above this has a massive effect on your health at that age. Huge effect' (Participant 12)

It was therefore seen that it was not possible to continue to work in such physically demanding ways until standard retirement age which then poses a challenge to the industry in terms of skills and replacement of workforce levels. For a number of the stakeholders the relatively short working life within some sectors made addressing health and wellbeing within the workforce ever more vital as a possible means of minimising early retirees;

> 'I would say we are one of the forerunners that's trying to look after our guys and make sure that they can work and we see it as prolonging their working life rather than, a lot of scaffolders think by the time they get to 50/55 that is their job over and they no longer can do this job' (Participant 6)

Construction workers in highly physically demanding roles are therefore are seen to leave before standard retirement age, the industry is viewed as being 'for younger people' in that you need to be fit, active and well in order to keep pace in the industry and the body as with any other tool would only be able to work for so long until it needed repairs or replacement.

Construction as stressful

Stress was seen to be a major issue within the industry, with many stakeholders identifying it as *the* major mental health issue that construction faces, and as something which is not seen as discriminating across the workforce. Management were particularly aware of the stress they felt within their roles and the visibility of their stress to the workforce;

> 'Managers are the most likely people, most of the managers, but the workforce as well, they are the most likely people to say if there is anybody on the site that is stressed and mentally upset, it Is going to be me and they kind of accept that' (Participant 1)

The pressured nature of the construction industry was seen by some to be the cause of stress within the workplace:

> ‘Yeah, stress- like I’m not too bad at the minute, cos it’s not as busy. When it is busy, it’s horrible y’know. It’s like, say about five people come to you nearly all at once, ‘Oh, I want this, I want that, I want this’ (Participant 3)

The volume of work was seen as being part of the reason why people felt stressed at work, and that the levels of stress vary with the type and nature of the jobs that people are working on;

> *‘…*it depends what job you’re on, the last job I was on…there was like fifteen weeks to do in about four weeks, and we were working round the clock.. But yeah, you see a lot of stress’ (Participant 9)

The stress due to the work was not confined to those doing manual work/site activities, but was seen as something which effected all layers of the industry, such as those working in desk based or management roles. Whilst some identified that stress was often due to the volume of work, or time pressures to complete work, others were aware that pressure could also be self-induced;

> ‘I was always very aware of you know, you are always under pressure to finish a job…sometimes you put yourself under the pressure because you want to get on, you want to be the best’ (Participant 4)

> ‘I think a lot of blokes are quite passionate about the job. They get stressed quite easily…they want to do a good job and nowadays programmes are a lot slacker, there is still a finish date that needs to be completed so a lot of pressure can be put on them sometimes but they do bring it on themselves quite a lot because I think they like a good moan, a good whinge’ (Participant 15)

Regardless of the source, be it through responsibility, pressure to complete a particular amount of work within set timeframes, or through a desire for perfectionism in their work, all the interviewees discussed stress as a feature of the construction industry. Stress was talked about in a normalised way and viewed as a part of working within construction and something which employees self-managed.

Discussion

Health and wellbeing with construction appears then to be shaped and in many regards, constrained by structural issues pertaining to the nature of the industry. Features such as its competitive nature, the transient workforce, prevalence of sub-contracting and variance between large and small companies in terms of standards of practice were all seen as meaning that promoting positive health and wellbeing in a systematic and industry-wide manner was viewed as highly challenging. Whilst the nationality of workers or their cultural background was not a prominent point of discussion within the interviews, understanding more about the cultural context of workers lives may also be important and may intersect with other aspects of the industry, such as transience of the workforce. The challenge that the variability of the industry and sub-contracting may pose to the ‘doing’ of health promotion work in the industry concurs with findings from other research into the construction industry (for example see Bajorek et al., 2014; Fenton et al., 2014) but this paper goes further in terms of demonstrating the nuances within those structural dimensions that could enable health promotion to be more readily achieved within construction. As others have noted, consideration of the structural features is necessary for successful design and delivery of health improvement and promotion work (Brenner and Ahern, 2000), and the views of the stakeholders examined here offer a useful insight and understanding of such features.

Given the competitive nature of the industry, and the growing sense that the notion of a 'competitive edge' is for some being aligned to having a healthy work force, competition may inversely encourage greater focus on health promotion for the workforce for some companies (specifically those which are large and have the available resources to facilitate such aspects). Annually the cost of ill- health in the UK workforce is suggested to be £100 billion per year (Our health and wellbeing today, 2010) therefore focusing on health and wellbeing in the industry could make prudent financial sense to companies, although as others have noted, the arguments around the cost-benefit of health and wellbeing to productivity and decreasing time off for ill-health have not perhaps been made sufficiently well within the industry as yet (Bajorek et al., 2014). Involving workplaces in health promotion can ultimately have positive results for both employers and employees,

> Employees in good health can be up to three time more productive as those in poor health; they can experience fewer motivational problems; they are more resilient to change; and they are more likely to be engaged with the business's priorities (Vaughan- Jones and Barham, 2010 cited in Bajorek, 2014: 13)

Making the case for health and wellbeing work within the construction industry therefore perhaps requires alignment within the priorities and make-up of the industry, working with the structural aspects that may be beneficial for encouraging companies to see health promotion and improvement as relevant and necessary for the good of both their workforce and their business.

The counter of the competitive nature of the industry is the prominence that stress was seen to have within the industry, with stakeholders viewing it as an almost normal and naturalised part of the industry. Work related stress is however a serious issue across many sectors in contemporary society. Previous surveys have found that, 98% of companies thought that the mental health of employees should be a company concern, with 81% believing that the mental health of staff should be a company policy issue (Confederation of British Industry, cited in Gray, 1999). More recently a Labour Force Survey estimated 1.3 million suffered from an illness they believed was caused or made worse by work; including 516,000 new cases (Labour Force Survey on work related illness 2016/17, cited in HSE, 2017). The second most prevalent of cases presented to primary care clinicians were concerned with mental 'ill health' (40%) such as work-related stress, depression or anxiety (HSE, 2017). The role of the structural features of the construction industry in the stress of employees therefore has the potential to pose serious risks to the industry and requires further exploration and prioritisation within any possible health promotion initiatives.

The stakeholders interviewed all felt that health and wellbeing was in general being viewed as more important for the construction industry, and particularly as client agendas begin to further dictate health and fitness for the workforce. The need for a healthy and well labour force has then become more relevant, particularly for larger firms or those undertaking high value contracts for prestigious clients. Client agendas were however seen as being more akin to health risk management, and an extension of due diligence by clients, rather than truly being focused around primary prevention or health improvement agendas. Understanding the role that large firms may play as 'customers' who are themselves doing sub-contracting and how they understand their responsibility or role for health and wellbeing requires some further consideration. Who is the client and who takes any 'ownership' for promoting good health and wellbeing with the workforce is not always linear within an industry such as construction, further highlighting the need to explore and understand the structural features in order to consider how health promoting activity could useful be enacted. Again, the need to make the argument that health and wellbeing is good for everyone rather than for specific groups does still require further work in order for it to gain traction within the industry, and particularly among the smaller firms who some interviewees felt were only just 'catching up' with health and safety agendas

that had been long established for many in the industry. The nuances of camaraderie and team support between small and larger firms, and the possible impact on particularly mental health and wellbeing is something which does however require further exploration and research.

The productive working life of a construction worker doing manual or physical work was seen as likely to be foreshortened due to ill health or injury. Individuals were seen to be changing roles, industries or taking early retirement on the grounds of ill-health, and a focus on health and wellbeing was seen as in part something which could help to avoid or minimise this. When compared to average retirement ages in other sectors, construction workers do in general retire twice as early as those in other industries (Brenner and Ahearn, 2000; Poole, 1997) thus focusing on health and wellbeing seems imperative so that the industry retains the skills and experience need to conduct the projects required and to enable the effective training of the next generation of workers. At a time when skills shortages are seen to exist across the construction industry (Mackenzie et al., 2000; Chan and Dainty, 2007), the importance of addressing the health of the workforce seems clear, but this can only be done through engaging with the determinants and structural features that prevent positive health and wellbeing within the industry, rather than narrating health and wellbeing at work as purely relating to lifestyle choices and individualised features. The employers role then appears to be central to enabling good health and wellbeing at work (IOSH, 2012) and using evidence about the realities of the industry in order to adopt, as others have argued, more 'ground up' health promotion approaches within construction appears to be a fruitful way forward (Milner et al, 2015). This chimes with work in other male dominated sectors, such as lorry driving, whereby there is suggested to be a 'need for sustained efforts at cultural change and a focus on the wider social determinants of health as a key step in tackling the known problem of lorry drivers' health' (Caddick et al., 2017: 53).

The construction industry has not however remained static in relation to health and wellbeing and stakeholders all identified changes that had occurred over time regarding health and wellbeing. The move towards a health like safety agenda was beginning to be seen, particularly within the larger firms, and this was ensuring that health and wellbeing was featuring on the agenda of the industry. There was however seen to be much more still to do to make health and wellbeing central to the industry and equitable with safety. It is therefore something which, given the identified structural constraints and barriers around health promotion, the industry may require a collective response to in order to embed the importance of health and wellbeing. The identification and growing awareness that the industry now also encompasses a wider variety of roles, including more that are management, desk based or technical, is also important to note. Whilst the health and wellbeing of those working in physical manual roles may appear more obviously as the health priorities of the industry, there is perhaps a growing need to also look at managerial stress, screen use and sedentary behaviour as part of the health and wellbeing needs of the industry; the industry is made up of varied roles and thus health and wellbeing needs will also differ.

This paper has then explored interviewees from across four case study sites, given the varied nature of the industry, further exploration, particularly of the views of those within micro and small and medium enterprises is needed. Particularly as some of our participants noted, that the health and safety agenda is viewed as still not completely resolved for small firms, therefore promoting health and wellbeing may be further away for some of these firms, but further investigation is required to ascertain this. These cases too may have also been self-selecting in that the directors of the companies or someone within senior management had put forward the company to participate within the broader research, this may have reflected those companies existing interest in health and wellbeing at work. The divergence of views from within each case does however perhaps balance out this potential limitation. Understanding more from the industry, from different types of construction

companies, and from different geographic locations would further add to the evidence base. This paper has only focused on 4 cases and whilst this offers a depth of insight into health and wellbeing issues, this does only provide a way in to understanding this topic and the firms examined here will not represent all of the construction industry. Further exploration with other firms across the industry to examine if any other issues are prominent around health and wellbeing would help further develop the evidence base. There does appear to some momentum moving towards focusing on health and wellbeing within the industry and research could usefully capitalise on this in order to help understand and evaluate how best health and wellbeing activities could be conducted in order to ultimately improve workforce health, for the good of the employees and for the productivity of the sector.

Conclusion

This paper then argues that there are particular features of the construction industry which make focusing on, or attempting to improve health and wellbeing a particular challenge. Whilst such structural features may not be easily addressed, awareness of and understanding of these aspects from those within the industry is perhaps an important first step. Any attempts to promote or improve workforce health within construction exists within this context and thus must be considered (Brenner and Ahern, 2000; Caddick et al., 2017). Our findings therefore offer useful insights for those who want to develop health and wellbeing for the construction workforce and could provide relevant knowledge for the creation of targeted interventions for improving health. Working lifespan of the workforce, which was seen as linked to the type of physical work employees may be engaged in, was viewed as a concern for the industry and this, along with a desire to retain staff, could provide a useful motivator for engaging construction workplaces in health promotion activities. Those in management also identified specific health issues for the desk based or technical roles of the industry, and contrasted those challenges with those faced by employees in manual and physical roles, demonstrating how health issues in the industry may less homogenous than has previously been portrayed.

Ultimately, the construction industry is highly competitive and the bottom line of being financial successful is a key context which drives the whole industry. Health promotion is thus seen as more achievable within a certain set of contexts. These are, when employees are directly employed, where larger firms with supportive clients are involved, who will focus on health and wellbeing for altruistic rather than strategic purposes and where financial resources allow for a well-considered focus on health and wellbeing. Such a context may not be the reality for the majority of the industry, and thus health and wellbeing promotion or improvement must be considered as something to do in spite of constraint. Constructing better health therefore requires arguments around the value of health promotion work, for operational, as well as individual reasons to be made.

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