

IFA WELLBEING RESEARCH

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Background & Rationale

In the UK over the period of 2011 to 2019, the number of deaths by suicide was highest in skilled and unskilled construction workers compared to other employment sectors, accounting for over 20% of all suicides by occupation ([ONS, 2019](#)). Construction is characterised by industry-wide challenges which are known risk factors for poor mental health, including job insecurity, high work pressure and poor work-life balance ([Lim et al., 2017](#); [Rodriguez et al., 2019](#); [Kotera et al., 2020](#)). Furthermore, mental health stigma is another significant contributor towards poor psychological wellbeing, noting the dominance of male workers within the UK construction industry (85% male: [Capital Economics, 2023](#)). It is unsurprising that previous research in Australia found construction workers who reported fear of stigmatisation for mental health problems were over 20 times as likely to have high levels of stress ([Bowers et al., 2018](#)).

These findings highlight the need to develop interventions to help construction workers manage these industry-specific challenges, to improve mental wellbeing in this population. At an industry-level, there is currently a lack of consistency in mental health and wellbeing support between construction projects and inconclusive evidence on the effectiveness of interventions being implemented ([Duckworth et al., 2022](#)). The annual cost in 2022 to UK employers of mental health related absenteeism, presenteeism, and staff turnover was £6bm, 26bm, and £22bn respectively ([Deloitte, 2022](#)). The evidence shows the financial benefit of providing support, with an average £5.30 return for every £1 invested ([Deloitte, 2022](#)). Universal and proactive support are the most impactful with an ROI of £5.00-5.60 compared to £3.40 for reactive support offered once mental health has already deteriorated. As well as the health benefits there is a clear financial case to addressing mental health support.

In response to the mental health crisis in construction, National Grid designed a Health Hub at the Sellindge IFA interconnector site to support the physical and mental health of all personnel working on site. With UoW as a research partner, this opportunity was used to evaluate the health benefits of the Health Hub based on accounts and experiences reported by construction workers and add to the evidence-base for best practice. The Health Hub was operational between 19th May 2022 to 18th November 2022 and provided a range of wellbeing facilities and initiatives to the workers on site, including a 24-hour gym, canteen, outdoor social spaces, indoor social spaces, TV room, one-to-one wellbeing coaching, and health awareness events (e.g. men's health MOT, Lighthouse Club, Stoptober).

Aims & Objectives

The objectives of the research were to understand workers' experiences of their work and use of the Health Hub, and gather evidence for its impact on perceived health and wellbeing, by answering the following research questions (RQs):

RQ1

Are there differences in self-reported health and wellbeing scores across different sociodemographic groups? (e.g. gender, age, ethnicity)

RQ2

Are there differences in self-reported health and wellbeing scores between individuals with different work characteristics? (e.g. different employment contracts or work patterns)

RQ3

Which facilities on offer at the Health Hub were most frequently used and were there any differences in self-reported health and wellbeing scores between workers who used different facilities?

RQ4

What were workers personal experiences, views and opinions of: using the Health Hub facilities; challenges of construction work and their respective impacts on workers wellbeing and attitudes and opinions towards mental health and illness?

What did we do?

Workers from a range of roles, trades and working patterns from the Sellindge site were invited to take part in the study, recruited via the site health and safety inductions or scheduled Health Hub events. A mixed-methods research approach was used, where both quantitative (e.g. survey data which is numeric and measurable) and qualitative data (data from interviews or open-ended free text boxes in a survey where personal opinions, attitudes and experiences are shared) were collected.



Survey

The survey was designed to anonymously collect participants' responses to eleven validated health and wellbeing questionnaires (e.g. depression and anxiety symptoms, quality of life) at 4-weekly intervals throughout their time on site. In addition, the survey also captured workers usage of the health hub facilities and provided them with the option to share additional thoughts on the initiatives through open-ended (free text) questions.



Interviews

One-to-one interviews were conducted to gain further insights into the workers' personal usage and experiences of the health Health Hub; experiences and views of the construction industry and its' impacts on the wellbeing of workers; and attitudes and opinions about mental health and illness.

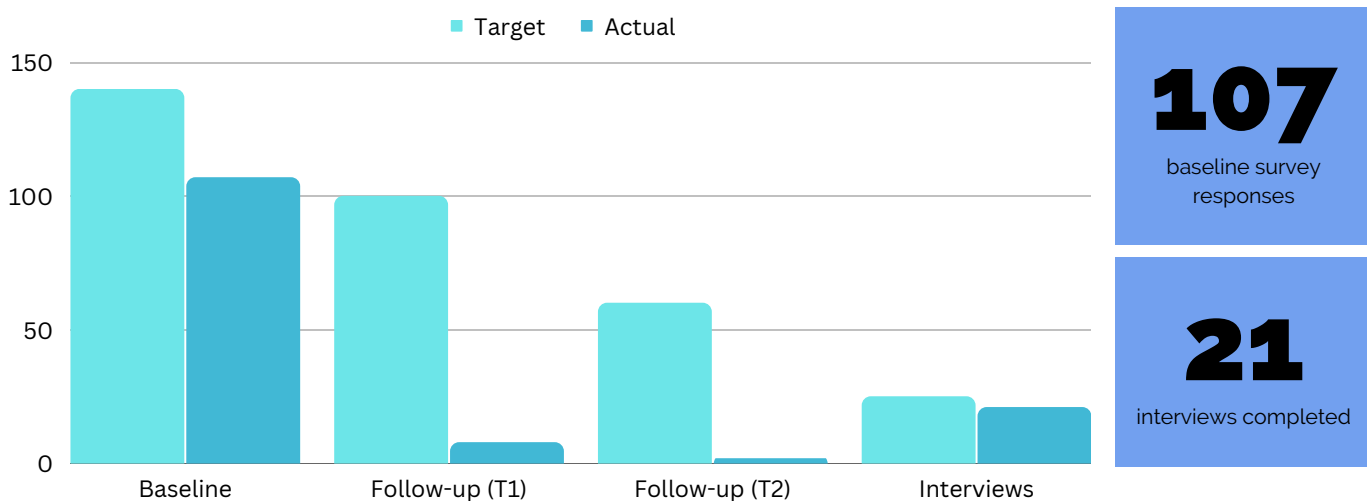
Data Analysis

The original study design aimed to provide an initial 'snapshot' of participants' health and wellbeing at the point of first completing the survey (called the baseline questionnaire, or T0), where any subsequent follow-up survey responses could be used to detect any change in health and wellbeing measures throughout their duration on site (T1, T2, T3 etc). However, due to challenges with survey recruitment, it was not possible to conduct any statistically powered analysis on change in health outcomes over time using the follow-up data.

As a result, the research team explored alternative options to assess the health benefits of the health hub, using the existing baseline data provided by the participants. Instead, a "duration of health hub use" variable was created, by calculating the number of days between the date participants recorded they started using the health hub and the date they completed the survey. Using this duration of Health Hub use variable, exploratory analysis was conducted to explore whether duration of Health Hub usage could predict each of the health outcomes. For example, does a longer duration of Health Hub use and greater number of facilities used, predict higher/lower depression scores. It is of note that due to issues with missing data (which is common with studies using paper survey collection methods), the analysis was conducted with a smaller sub-sample of participants. Therefore, any findings should be interpreted with caution until it can be replicated with a larger sample size.

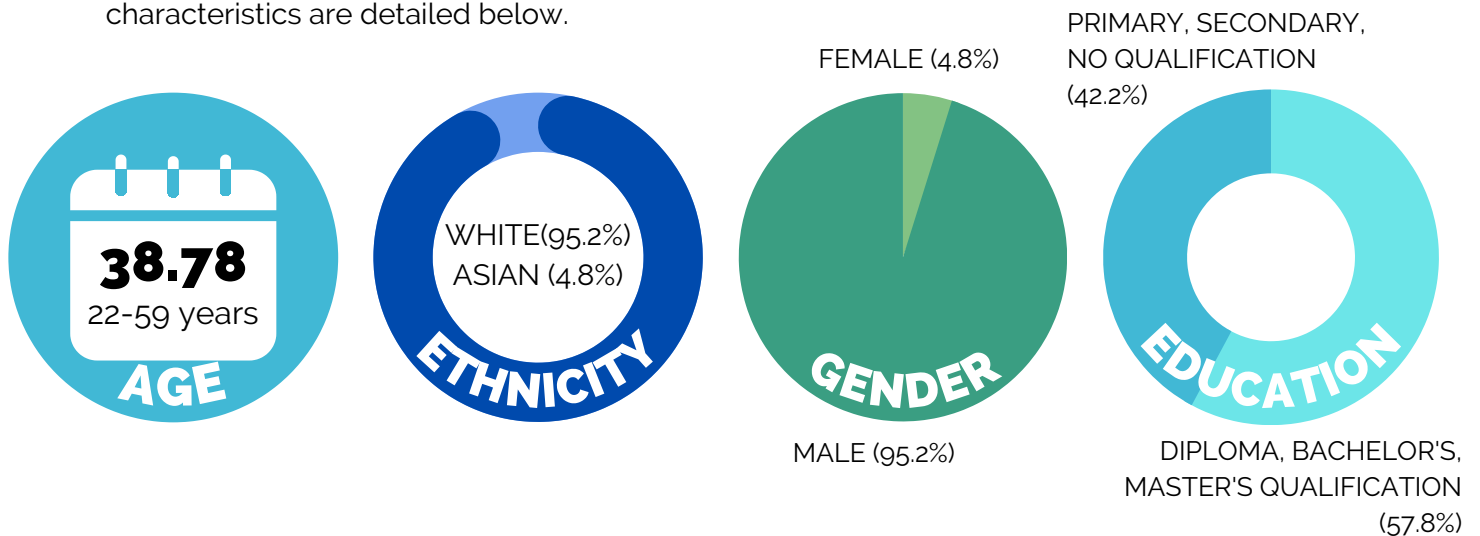
Engagement

Despite the challenges faced with recruitment, sufficient data was collected to conduct meaningful analysis on the baseline survey data and qualitative interview data. These challenges have also formed a key part of the learning from this project, which will inform recommendations for engagement in future projects.



Who took part in the survey?

Overall, 107 participants completed the baseline survey, whose sociodemographic characteristics are detailed below.



To assess the impact of individual sociodemographic and work characteristics on participants health and wellbeing scores, all health and wellbeing variables were included in a statistical model.

RQ1

Are there differences in self-reported health and wellbeing scores across different sociodemographic groups? (e.g. gender, age, ethnicity)

- There were no statistically significant differences in health and wellbeing scores between genders nor ethnic groups.
- Younger construction workers were significantly more likely to have a better overall perception of their health than older workers ($r(61) = -.27, p = 0.034$). No other statistically significant relationships between age and health and wellbeing scores were found.

RQ2

Are there differences in self-reported health and wellbeing scores between individuals with different work characteristics? (e.g. different employment contracts or work patterns)

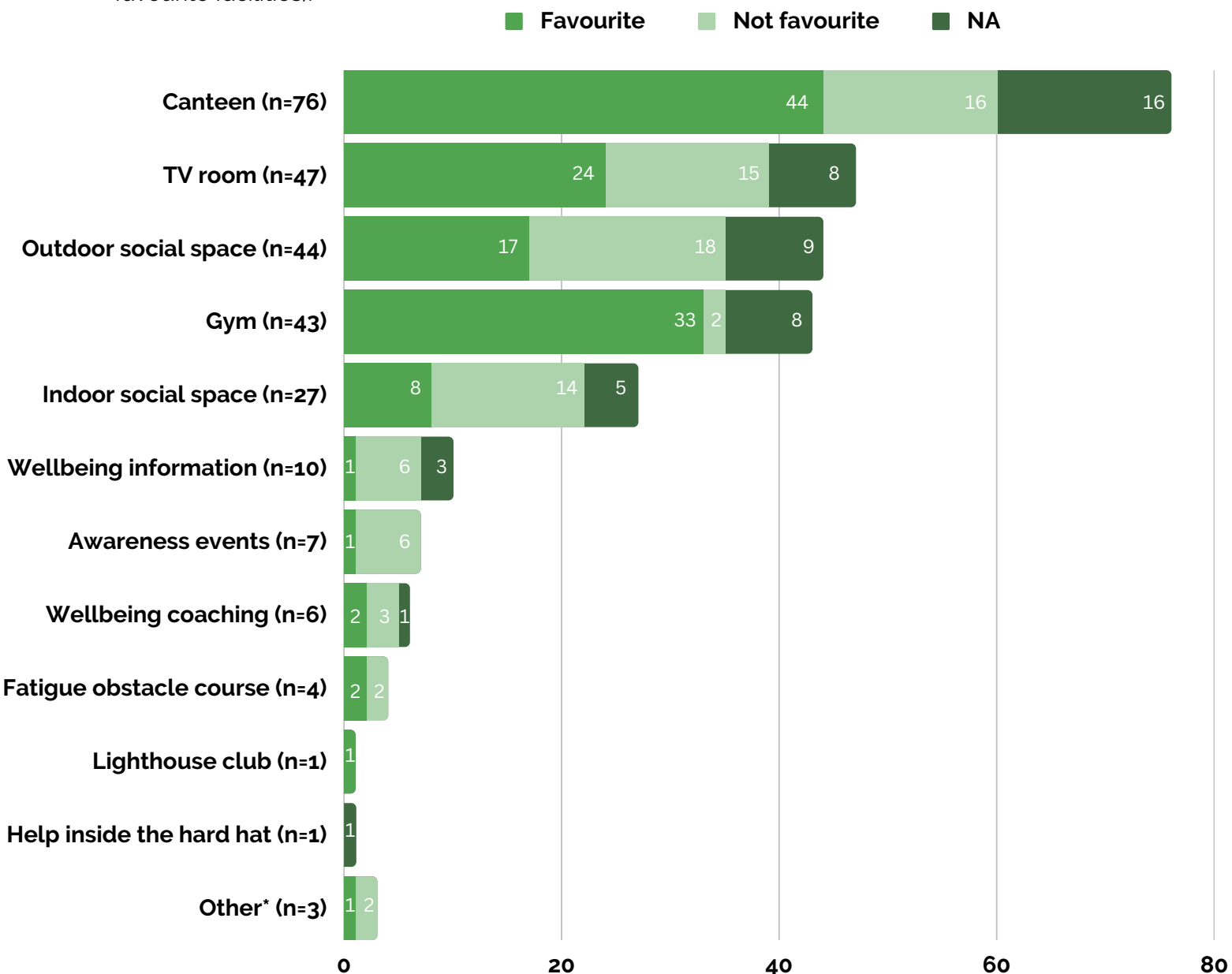
- Supervisors had significantly higher depression scores (mean = 2.00), than those who did not have a supervisory role (mean = 1.23) ($F = 5.276, p = 0.025$).
- Physical activity was significantly higher in those who were self-employed (mean = 5.12), compared to those who were not self-employed (mean = 3.95) ($F = 4.377, p = 0.041$).
- Workers who were self-employed AND supervisors reported significantly greater feelings of loneliness (mean = 2.57), than those who were neither self-employed nor a supervisor (mean = 3.06). ($F = 4.38, p = 0.041, B = -2.06$).

Health Hub Usage

RQ3

Which facilities on offer at the Health Hub were most frequently used and were there any differences in self-reported health and wellbeing scores between workers who used different facilities?

In this section, the findings regarding the usage of the Health Hub facilities are presented. Participants were asked to select which facilities they used and of those selected, to identify their top three. 79 participants provided information on their health hub usage. The number of participants who reported using each facility, and the proportion of those who subsequently rated each facility within their top three are visualised below (note: NA responses are those who reported using the Health Hub facilities, but did not provide further information on their favourite facilities).



* The 'Other' facilities reported being used by the three participants included: the penalty football competition and the washing machine/dryer. The washing machine/dryer was rated by one participant within their top three favourite initiatives.

The final part of the survey included an optional, open-ended question asking participants to provide any further explanation as to the reasons why they liked using the facilities. A third of all participants (n = 42) provided further details on their views and opinions of the health hub, which are summarised into descriptive themes and supported by examples in the table below.

Theme	Subtheme	Example statements [Participant number]
Perceived benefits of the health hub facilities	Overall positive impression	[5] "Boosts morale on site" [38] "Nice place where you can have a piece of rest. Thank you!" [42] "Been very good for my mental health and fitness!"
	Convenience of accessing the facilities on site	[41] "Free lunch on site is a massive perk and saves a lot of time and money" [23] "Makes life easier" [21] "It's handy because I work away"
	Perceived benefits of using the gym for wellbeing	[9] "Feel good after doing the gym. Helps with my physical and mental wellbeing. Excellent working with Carlton" [8] "Currently doing 12 hour shifts the gym is used before breaks for 30mins or so to aid mental health. If this is to be stopped and done out of work then the gym becomes a non viable option to many" [34] "The gym helps me a lot and is a better alternative to alcohol"
	Perceived benefits of the canteen	[30] "Somewhere dry and clean to eat your meals" [36] "Free food" [13] "Good food nice people"
	Perceived benefits of the TV room	[3] "As we are working 12 hour shifts, its nice use the TV room to relax" [11] "TV room good to relax"
	Perceived benefits of the outdoor social space	[4] "Better than eating inside, weather depending" [19] "It was nice to sit outside during the summer" [36] "Football on grass was good idea"
	Perceived benefits of wellbeing information	[14] "Good health support and advice"
Perceived barriers to using the health hub facilities		[1] "12 hour nights make it hard to do as very tired" [7] "not enough time because 12 hour shifts and short breaks" [24] "The attitude of management is more important. Many contractors receive inadequate rest breaks. Those working 12 hours should receive a 1hr constant break to reduce fatigue. Facilities are all well and good, but pointless if there is no available time to use them." [28] "Pressure of work don't have time. [The Client] have invested in hub but want a job done at the same time. Being 'forced' to work long hours and having a 'hub', a case of giving with 1 hand and taking with the other. [The Client] want to look good in providing hub"

The final statistical model explored whether increased use of the Health Hub facilities predicts higher/lower health and wellbeing scores. As discussed in the [data analysis](#) section, a new variable 'duration of health hub use' variable was created, calculating the number of days a participant had used the Health Hub facilities before they completed the survey. Duration of health hub was included as a predictor in the model, in addition to a cumulative total number of facilities used per participant. Interaction effects were also examined, to evaluate whether duration of Health Hub use **and** total number of facilities used, significantly predicts higher/lower health health outcome scores.

- **Participants who had used the Health Hub for a longer duration and indicated a greater use of facilities had significantly lower anxiety scores (R2 = , 0.12, F = 3.27, p = 0.047)**

Follow-up data: early insights

An inspection of the limited available follow-up data suggested that there were some changes between baseline and T1 in: quality of life (overall perception of health and environment domain score), resilience, stress and attitudes towards seeking psychological help. This finding should be interpreted with caution until it can be replicated with a larger sample size.

Qualitative Interview Findings

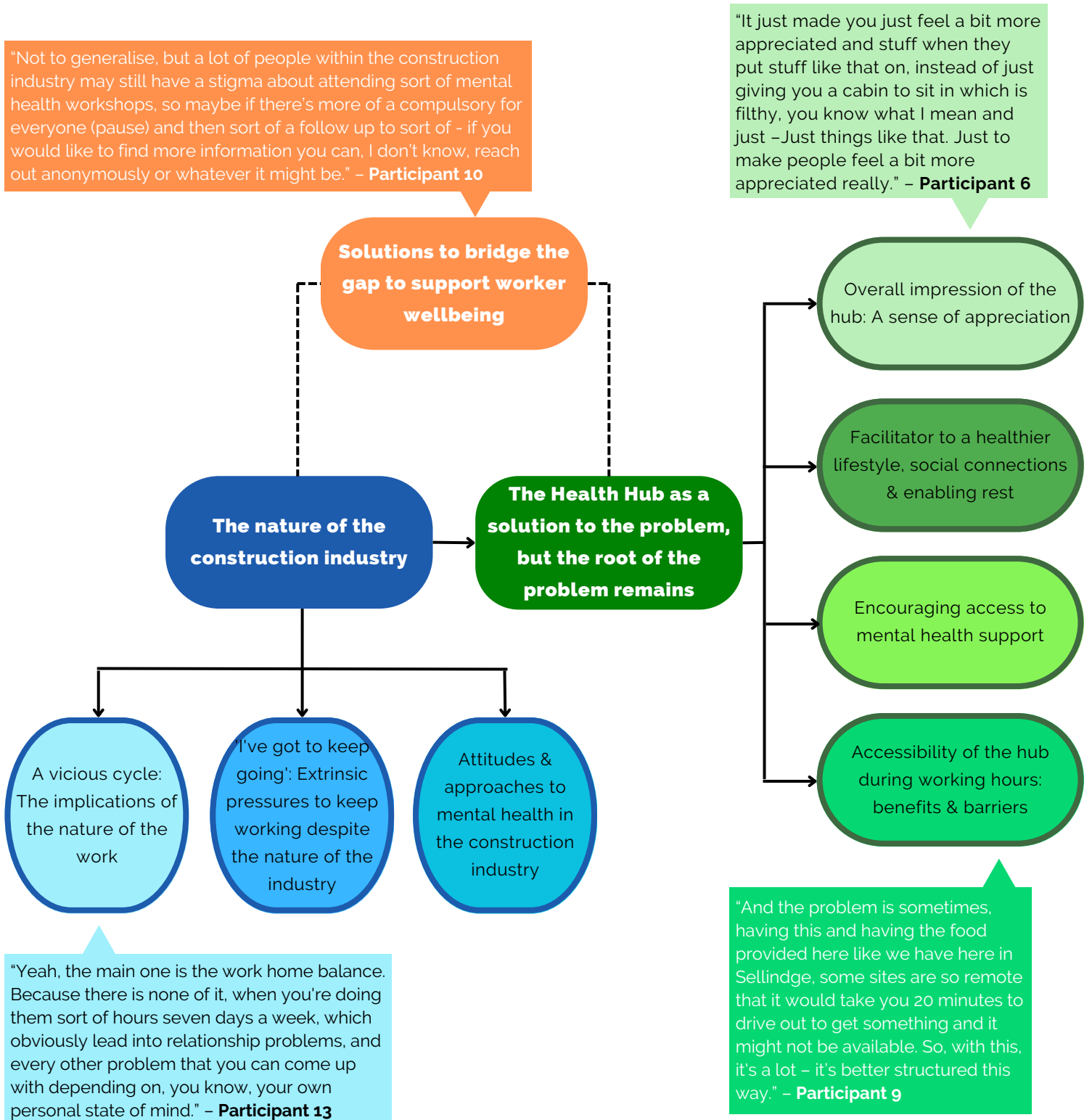
RQ4

What were workers personal experiences, views and opinions of: using the Health Hub facilities; challenges of construction work and their respective impacts on workers wellbeing and attitudes and opinions towards mental health and illness?

21 participants completed the one-to-one interviews, where one recording failed, resulting in 20 participants included in the final sample for analysis. The mean duration of interviews was 15 minutes 35 seconds. A qualitative research process called thematic analysis was followed to derive the overarching messages/themes from the interview data.

Two central, interlinking themes were generated, the first conceptualising '**The nature of the construction industry**' through the challenges faced by the workers in the industry. This theme paints the picture from participants' accounts of what it's typically like to work in the construction industry, before detailing further the specific personal and familial implications of the nature of the work; the drivers and motivators for workers to 'keep going' despite its demanding nature, and the attitudes and approaches towards mental health within the industry.

The second theme captures participants opinions, views and experiences of how National Grid have tried to address this problem through the provision of a **Health Hub**. The subsequent sub-themes outline the positive impacts the Health Hub has had on participants in the context of the challenges they have described including: an improved sense of appreciation; the opportunities to make healthier lifestyle choices and develop social connections; an improved awareness of mental health and relevant signposting; and the accessibility and remaining barriers to fully engaging with the Health Hub facilities. The final interlinking sub-theme highlights some **suggestions for improvement** to maximise the support workers could receive to best support their wellbeing. A visual representation of the relationship between these themes and their respective subthemes are presented in the thematic map below, with a more detailed description of each component theme and representative quotes reported in the appendix.



Conclusions

Through analysis of the data collected and comparison with the existing literature, we have drawn the following conclusions and provided recommendations for next steps.

Our sample of participants who completed the survey were mostly white males. This is similar to other surveys including a recent survey (2021) of self-employed construction workers conducted by Mates in Mind and The Institute for Employment Studies, where 95% were white British and 85% were male. It is likely no significant differences in health and wellbeing scores were identified between sociodemographic groups, due to the small number of participants within the other sociodemographic sub-groups (e.g. female, non-white). The only emerging significant findings related to age, where younger workers had a better overall perception of their health than older workers. This may be due to an expected decline of health with age, though possibly exacerbated by the demands of physical work.

Some industry-related work characteristics (e.g. self-employment, supervisory roles) were found to be significant predictors of poorer health and wellbeing indicators in the current study. This is in line with recent reviews of the literature, which highlighted that work characteristics including job insecurity and role conflict were found to have negative consequences for workers wellbeing (Duckworth et al., 2022; Sun et al., 2022).

The canteen, gym and social spaces were reported to be the most frequently used facilities at the Health Hub. Participants who had used the Health Hub for a longer duration and indicated a greater use of facilities had lower anxiety scores. This finding is encouraging but should be interpreted with caution until it can be replicated with a larger sample size.

In light of consistent findings from previous studies of negative impacts of poor mental health on reduced productivity (de Oliveira et al., 2023), the current study shows the potential benefits of such workplace interventions at both an individual and employer level. Of particular relevance to the current study, when focusing on anxiety specifically, previous researchers have found that as anxiety symptoms increase, work productivity decreases (Erickson et al., 2009). Although research on the effectiveness of wellbeing interventions in the construction industry is still in its infancy, two recent studies on the wider workforce have found positive effects of wellbeing interventions on improving anxiety symptoms and associations with improved work-related outcomes (Bondar et al., 2022; Haufe et al., 2020). For example, a workplace exercise intervention for workers with metabolic physical health issues (such as high cholesterol, high blood pressure or high fasting glucose), led to reduced anxiety in the workers. Furthermore, exercise increased work ability in all workers irrespective of their anxiety score (mild, moderate or severe) before the intervention (Haufe et al., 2020). Another study in the USA found an employer-sponsored workplace mental health program was associated with reductions in anxiety symptoms for employees and positive financial ROI for employers (salary savings at 6 months at the median wage was US \$3440 through improved productivity and absenteeism) (Bondar et al., 2022). Future research should seek to expand this evidence base in the construction industry, by evaluating both the health and economic benefits of wellbeing interventions, to help make the case to employers and relevant stakeholders for investment at an industry-wide level. Health economic studies typically assess changes in both self-reported individual work-outcomes (e.g. productivity) or objective project-level measures (e.g. staff turnover, accident rates, absenteeism), which could be included in future intervention evaluations.

The qualitative analysis of the interviews and open-ended survey question highlighted in greater depth the challenges faced by workers in the industry, and how the Health Hub has tried to address these. Similarities in the challenges reported by participants relating to the nature of the industry and implications they have for workers' wellbeing have been found in the literature. In a recent study where UK construction professionals were interviewed about life as a construction worker, work stress, high workload and impacts on sleep quality and health were viewed an inevitable part of the construction industry linked to industry pressures and competitive practices ([Hulls et al., 2022](#)).

In terms of the positive impacts of the Health Hub, participants reported several health and social benefits to the Health Hub, ultimately helping to make their lives easier in light of the challenges they're facing. However, some barriers relating to insufficient time to use the facilities were also noted, with suggestions on how to maximise the benefits workers could receive from the Health Hub and recommendations for how the industry could better support their wellbeing. In this regard, [Lingard and Turner \(2017\)](#) suggest a more holistic approach to construction-based health promotion programmes would be beneficial, which recognise the dynamic relationships between individual and environmental (industry, workplace and family) factors, and how these factors influence health behaviours and outcomes. Future research could also explore the impact of perceived organisational support as a predictor of health and wellbeing outcomes, given that the interview data in the current study highlighted the Health Hub contributed towards an improved sense of appreciation.

In conclusion, the IFA wellbeing research project has highlighted that the Health Hub provided at the Sellindge IFA interconnector site was well received by workers and supported the health and wellbeing of those on site. Further impact may be possible by focusing on reported barriers to use of the facilities. To continue building the evidence-base for standardised wellbeing provisions in the construction industry, future projects can incorporate the successes and learnings of the current project. Any future construction projects, regardless of their size or nature, should consider taking a holistic approach in the design of any wellbeing provision, incorporating a common set of validated measures covering both health and economic measures and address the engagement challenges seen in this pioneering project.

Thank you

The University of Warwick would like to thank all the workers on Sellindge site who took the time to engage with the IFA research project. Without these workers sharing their experiences, the Health Hub could not have been evaluated and go on to inform evidence-based health and wellbeing provisions on future construction sites. Special thanks to Carlton Dixon and Natasha Turner for their efforts on site with study recruitment. A final thanks to National Grid Ventures for funding and facilitating this important work.

Appendix

The nature of the construction industry

'The nature of the construction industry' first paints the picture from participants' accounts of what it's typically like to work in the construction industry, before detailing further the specific personal implications of the nature of the work; the drivers and motivators for workers to 'keep going' despite its demanding nature, and the attitudes and approaches towards mental health within the industry. Almost all participants (18 out of 20) made reference to the long working hours, typically described as 12-hour shifts seven days a week, with additional travel time to and from the site extending the day even further.

The long hours were perceived to be predominantly fuelled by the project pressures and demands, which were often deemed to be compressed within unrealistic timeframes with insufficient skilled workers to meet the demand. Whilst 24/7 working is not uncommon due to industry requirements to complete projects within a specific timescale, it is nevertheless important to acknowledge this is a common challenge workers face within the industry.

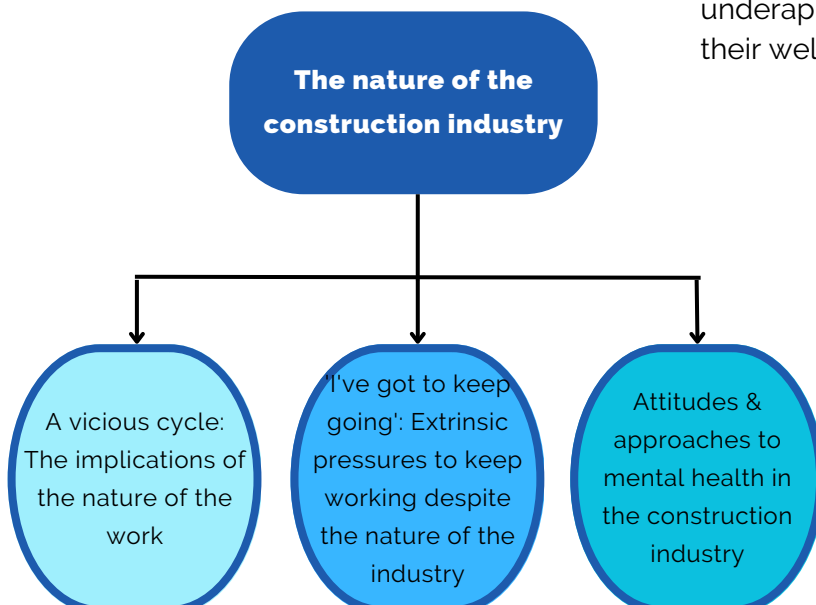
"You're doing seven 12-hour shifts. I mean, that's a lot of hours. That's a lot of hours, you know. You can't really do a lot more if I'm perfectly honest. You're at your limit of working" – **Participant 2**

"So there'll be - a prime example, you might have a scenario where - if it's something like [the client], they need to get a particular room open by a particular time. The deadline might be completely unreasonable, but you'll be told whatever it takes, and they will expect you to do whatever it takes. So, that generally means longer shift patterns, reducing the amount of sleep that people might be having on site, making sure that they're on site almost 24/7." – **Participant 10**

"If you don't work the weekends, you're frowned upon. So you're stuck between a rock and a hard place, choosing between work and family life." – **Participant 15**

The high project demand led several workers to report feeling obliged into working long hours, particularly in relation to working additional weekend shifts on top of their already long-shift schedules. Participants described this "bully culture" (**Participant 13**), leading workers to feel underappreciated with little consideration for their wellbeing or family life.

"...that sort of bully culture still exist where more or less telling you, you got work... Just that you are expected to work all them hours, not given a choice so there is no choice, it's, you know, do it or it's, it'll be frowned upon. I think it was worded" – **Participant 13**



A vicious cycle: The implications of the nature of the work

As is well documented in the literature, the long working hours have several implications for workers in the industry, particularly in terms of their physical and mental wellbeing. Participants described a vicious cycle of knock-on effects of the long working hours, from irritable mood and fatigue to reduced productivity, increased illness and worsening psychological wellbeing.

"..they overstayed the three months rotation and they go to four months into five months. And then it becomes a problem, because then what happens is that they get stressed, they'll start drinking, and then they don't do their work. And it's just a vicious circle again. So, it's exactly the same as what's going to happen here, but in a very small space of time, where if you make people to be away from home for more than two weeks or three weeks or whatever, the mindset changes then." – **Participant 9**

"Because the thing is that, you are not productive at that time in the evening. You have your break at 4 o'clock and then go back at half 4. You've got another two-and-half hours, but by that time, I would say, 99-percent of the blokes are done, they're literally shattered. And they are not even getting any work out here, really. You are just plodding along, but then you can't concentrate because you are tired. Then you make mistakes because you are not concentrating. So, it's a massive knock on effect, but as far as they are concerned 12 hours, yeah (laughs)" – **Participant 18**

In addition, participants explained how the challenging nature of the work can also have impacts on their family life and additional challenges associated with living away from home. Participants described having limited time outside of the long working hours to complete life admin (e.g. sorting finances, cleaning, housework), leading them to feel even more stressed. Living away from home also brought its own challenges, with participants reporting not always eating as healthy as if they were living at home.

"because you're not in a specific place as well, so, you know, meals and you, you probably tend to not eat healthy as you could if you're, if you are home every day. And that I think, that's important." – **Participant 5**

"Even like your little daily. You know like for instance you go I need to nip to accountants... whatever jobs you've got to do, I need to nip and do this... They're closed by the time we finish because it's quarter to 8, do you know what I mean. You are not getting anything done and then you are getting stressed out because you got loads of stuffs, you're asking people to do for you" – **Participant 18**

The majority (14 out of 20) of participants made reference to not spending as much time with their family as they wished. Many of those reported how they regularly miss out on a lot of time and special occasions with their families, which can put strain on their personal relationships. This strain on family life feeds into a further vicious cycle of stress at work and home, where workers would bring their personal stressors into work and take their work stressors home. To support each other through the struggles of construction life, workers described often turning to each other for support, particularly given they spend more time with their colleagues than their family.

"Yeah, the main one is the work home balance. Because there is none of it, when you're doing them sort of hours seven days a week, which obviously lead into relationship problems, and every other problem that you can come up with depending on, you know, your own personal state of mind." – **Participant 13**

"your workmates and you become very, very close to them 100%, you know, you see them every day, you see them for 12 hours every day pretty much for one or two years and you become like a family. We've all certainly opened up here and people have been going through their own struggles on site over the year, and have been able to...you'd definitely be able to come and talk to someone, you know. Someone I didn't know a year ago, you know, will open up to me or vice versa. Isn't that strange?" – **Participant 19**

'I've got to keep going': Extrinsic pressures to keep working in the context of the nature of the industry

As highlighted above, family life and work-life balance are of particular importance to construction workers. This was particularly portrayed through participants reports of their drive to continue working, despite the demands and challenges outlined of working in the industry. Several participants described their work as a means to an end to financially provide for their families. As a result, this meant participants would work long hours and shift schedules to make it financially worthwhile, particularly given the job insecurity faced by many contractors in the industry. The financial pressure placed on workers has only been made worse by the current economic crisis they have been facing throughout the study period.

"Financially I think is going to be the main one because obviously, as things rising, people are trying to work more hours, to cover the cost of the increase and then that puts a strain into having time being spent at home because you need to work away longer" – **Participant 9**

"I've got to keep going, I've got three kids and a wife. I've got a household I can't afford to get ill, I've just to keep my head down and keep going. It's all about them... they are the reason I do everything I do." – **Participant 4**

"And you tend to take the money as well whilst you're here because these jobs, with the contract they gave you, construction projects obviously come to the end and then you might be out of work for two or three weeks. So if you don't work the extra when the work is on, you could end up in a bit of it hole, like, you know." – **Participant 15**

Attitudes and approaches to mental health in the construction industry

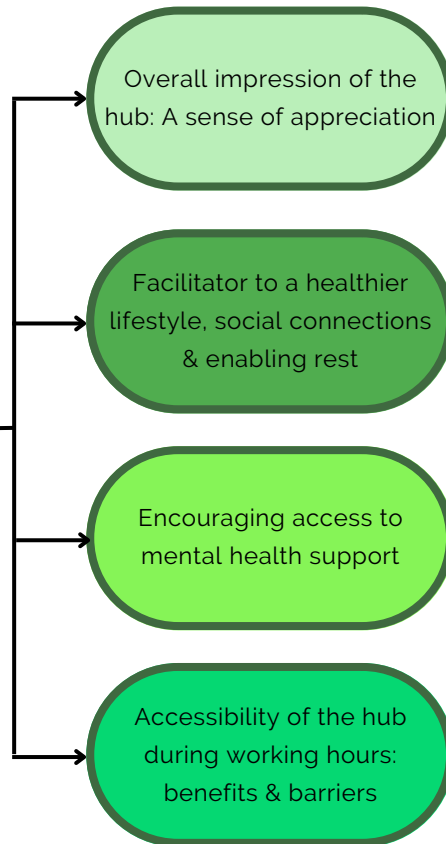
"I'd be surprised if about three or four of them were like ladies. So, you've got majority geezers. No one's going to... Well, in construction, no one really talks about anything like that.. If someone was upset, you'd probably wouldn't have many people talking about it or saying, "Oh, come and talk to me mate." They'd probably just tell them to man up or go for a drink or something" – **Participant 1**

"Well, I think it has changed, certainly over the last couple of years. I mean, things like mental health. I mean, I struggled with my mental health big time last year, just literally come out of the blue. One minute I was fine the next minute I was struggling but, you know. Since I've come to this job, you know, the first meeting I had was regarding mental health. That was a big eye opener for me because, you know, lads don't really tend to...well, certainly a few years ago, lads didn't really tend to talk about that but, you know, there's a lot of...there's a lot of help out there for anyone now really" – **Participant 19**

The nature of the construction industry was not only defined by the participants in terms of the project demands and their respective personal challenges, but it was also discussed in terms of the approaches and attitudes towards mental health within the industry. Several participants acknowledged that whilst there is an increasing awareness of mental health in the industry, wider changes in opinions and culture are slow, with mental health largely remaining a taboo topic. The stigma attached to mental health was perceived to be rooted in male dominance, particularly given the proportion of male workers in the industry, where the norm is to "man up" (**Participant 1**) and "get on with it" (**Participant 4**). Some participants reported having a greater awareness of mental health through personal experiences (e.g. self, family, friends, work), whereas others reported little previous exposure to mental health. These experiences increased participants understanding of how mental health can affect people in different ways, as well as realising the benefit of talking about problems with others.

The Health Hub: A solution to the problem but the root of the problem remains

The Health Hub as a solution to the problem, but the root of the problem remains



In light of the challenges outlined within the first theme, this second key theme and respective sub-themes captures participants experiences of how National Grid have tried to respond to this problem through their provision of a Health Hub. The following sub-themes outline the positive impacts the Health Hub has had on participants health and wellbeing and suggestions for improvement to maximise the benefits workers could receive.

Overall impression of the Health Hub: A sense of appreciation

Overall, the Health Hub was generally well received and appreciated by the workers on site. The majority of participants (n = 14) discussed being pleasantly surprised to see a facility like the Health Hub on site, as they had never come across anything like it on previous projects they had worked on. Particularly given the lack of appreciation felt by workers generally within the industry, the hub was perceived as a welcome gesture of appreciation and sense of acknowledgement by the workers on site. As a result, some participants suggested the workers "gave more to the project" (**Participant 19**) in terms of increased effort and productivity, as the hub was providing for and giving back to them. Over half of the participants (11 out of 20) reported wanting to see similar facilities on offer on their future projects, due to the difference it makes to the lives of the workers on site.

"I think that's absolutely maximised, you know, their efforts on site, and obviously health hubs giving them something, and I think they've given the project something back as well." - **Participant 19**

"It just made you just feel a bit more appreciated and stuff when they put stuff like that on, instead of just giving you a cabin to sit in which is filthy, you know what I mean and just -Just things like that. Just to make people feel a bit more appreciated really." - **Participant 6**

"Well, in this industry it's just unheard of. So I know that them sort of facilities are available to other walks of life, but not in construction. So, it's about time that you know, it was there." - **Participant 13**

Facilitator to a healthier lifestyle, social connections and enabling rest

With regard to the individual-level impacts and health benefits of the Health Hub facilities, participants discussed how the hub encouraged and facilitated them to make healthier lifestyle choices. The canteen and gym were reported as two of the most used facilities by the workers, with the healthy meal options and access to the gym encouraging them to live more healthily than they otherwise would. Participants also discussed the improvements in both their physical and mental health, noting positive changes to their fitness, energy, and stress levels. Participants particularly appreciated having access to a personal trainer for additional support.

"Especially with the breakfast and the lunches, healthy food and that, getting people thinking rather than just everyone like driving down to McDonald's or wherever else. It makes a change to have a healthy lunch" – **Participant 1**

"And you just feel tired all the time, you know, which was a good thing about the gym because (chuckles) believe it or not going to the gym after work or before work, gives you a bit more energy which seems strange but it did." – **Participant 4**

Where some participants preferred to use the gym for respite in their breaks, others enjoyed using the indoor social spaces such as the TV and quiet rooms to relax and recuperate before going back to work. One participant described how the TV room also helped them to keep up to date on the news, which would otherwise be more difficult to do.

"Well, personally, I, I like the fact that they've got a couple of TVs in there. So, when you are working the hours that we're working, like, find the time to catch up on what's happened in the news, they've got a big TV in there so you can catch up on the news, you can catch up with the sport, in a quiet room they've also got a TV... So, it's good the fact that there's a news portal there for people to keep up with things." – **Participant 12**

"The TV room that they've got there, that is good because obviously the weather has been so hot, it's air-conditioned so it does really...it does chill you out, it does...it does, you know, you can recharge your batteries in there." – **Participant 2**

In addition, several participants also described the hub as a facilitator to team building and socialising between the workers, which contributed towards boosting the morale on site. Participants reported how the challenges and competitions run by the hub were a great opportunity to bring workers from different companies together. This is particularly noteworthy given the importance of colleagues as support networks described previously. Furthermore, the health hub also provided participants the physical space to chat with their colleagues in a more comfortable environment away from site, with some participants describing the hub as a good alternative to the pub. Participants discussed how the health hub allowed workers to get away from work in their breaks, both physically providing them the space away from site or their desk, but also mentally to help them switch off temporarily from their work.

"it's good like that and I suppose even the exercise there with the kicking the football and stuff to bring different companies together and have a laugh together and it's good." – **Participant 17**

"it is a bit of downtime when you're talking too...it kind of works. You're not talking just about work, so I mean...I mean, if anything, you're kind of counselling and talking about your problems and issues in a... in a better environment than possibly on a building site." – **Participant 2**

"It helped me a lot really just getting away from -- just getting away from work for a bit, you know, in your breaks, instead of just sat about waiting to go back to work, you know. That sort of broke up your day a little bit." – **Participant 6**

Encouraging access to mental health support

As touched upon in the previous subtheme, the health hub facilitated workers to have conversations regarding their stresses and concerns, by providing a more suitable environment to hold such conversations away from site. Over half of the participants (n = 12) reported that they knew mental health support was available to them if needed, describing how the health hub made it easier for them to reach out and would feel more comfortable in doing so. Participants discussed how the posters, talks (e.g. Lighthouse Club) and mental health related challenges helped to increase visibility and improve awareness around mental health.

"it was easy to speak to somebody there if you wanted to because there was always posters about and they were quite pushing it for you to speak to people and stuff, so. I was no more aware, but I suppose if I did have issues it'd probably a bit -- it would be easier. I'd probably feel it easier to speak to somebody there because it was sort of made that it wasn't a bit taboo. You know what I mean? It was like a normal thing to do, to speak to somebody about it." – **Participant 6**

"I think the visibility that this brings to a site, certainly a site like this, but any site that sort of visibility that that brings certainly opens people's eyes to it. And then, you know, if they, if they got more awareness of it, they're more likely to ask." – **Participant 5**

"he's actually been on the phone to the lighthouse club and he's been getting help off them and their counsellors. So, if they weren't on here, he maybe wouldn't have had anyone to turn to and he'd have been bottling up his emotions." – **Participant 12**

"you got 30 or 40 lads in that room asking certain questions and things like that. And you know, two... probably two or three years ago, that wouldn't have happened, it would have been...it would've been hushed lips and then you know, kind of get on with it kind of thing but it's more openly spoken about now." – **Participant 19**

At an individual-level, some participants described how through the mental wellbeing related initiatives, they learnt more about the signs of poor mental health to look out for and the signposting resources available to them. One participant described how they were able to encourage a colleague to seek help from the Lighthouse Club, where they may not otherwise have sought help had they not been signposted on site.

"I'd say it's probably a bit of a slow process because everyone's still acts the same on site. But I think from what the [facilities coordinator] has told us, I reckon I'd be able to spot someone who seems a bit down more rather than saying, "All right" and walking on from it. Like from what [facilities coordinator] was saying like the steps to do, just saying like having a chat with them, listen to them and that.. I'd be a lot more open to that than I would before." – **Participant 1**

Whereas other participants reported the mental wellbeing related initiatives did not change their opinions or understanding of mental health, particularly if they had previous experiences with mental health (such as those discussed in 'Attitudes and approaches to mental health'). Nevertheless, they noted it was encouraging to see these initiatives on site and would have made it easier to seek support if needed.

"I wouldn't say it's done that because I would've...I would do it already but it's nice to have it on site, 100% right on site." – **Participant 2**

"I think if this is the first time you came across it here, then yes. Because I already have got past experience and under fairly good understanding of it. It probably hasn't changed my opinion." – **Participant 5**

Accessibility of the hub during working hours: benefits and barriers

In addition to the individual-level health and wellbeing benefits described, another particularly prominent sub-theme related to the accessibility and convenience of the health hub facilities more broadly. Just over two thirds of participants (n = 14) remarked on how having access to the facilities on site, particularly the gym and canteen, helped to make their life easier. Participants explained that given the nature of construction work in terms of the long hours, living away from home and often rural location, it was very convenient to access the gym and canteen on site, especially during the working day. This allowed participants the opportunity to prioritise their health and wellbeing without having to sacrifice their rest period or time spent with family. Financial benefits were also reported, as the participants were able to save on gym memberships and food costs, which was particularly appreciated given the challenges related to the current economic crisis.

"And the problem is sometimes, having this and having the food provided here like we have here in Sellindge, some sites are so remote that it would take you 20 minutes to drive out to get something and it might not be available. So, with this, it's a lot – it's better structured this way." – **Participant 9**

"So with the help of having gym on site and obviously being the food there is like a double bonus I'd say, you've never experienced anything like it before so when you go home, you literally go home. You don't go home and go, "Oh, I've got to go to the gym now," or, "I've got to get my food ready now," or you've literally.. Your minimal time you've got to do in 12 hours spent as you should be doing resting really basically. You've got other jobs.. I've rushed around or I've got to get to the gym by so and so because then it closes and then you've got to time your food so you're not eating too late, so you can sleep better. But with obviously that access to the gym it's an absolute no brainer." – **Participant 2**

Whilst the facilities were mostly described by the participants to be accessible to workers throughout the day, some felt the canteen operating hours weren't inclusive for all shift patterns, particularly those working night shifts. Although meals were sometimes left for the workers to reheat, participants described their concerns regarding uncertainty of food availability and the lack of consideration felt by those working alternative shift patterns.

"you'd be amazed the amount of times that people do turn up with no food. And then like I say at night, you've got to try and find.. So Sellindge is in the middle of nowhere so. Like trying to find somewhere where you can go and grab something to eat at 11 o'clock at night is just not always..well, it's not feasible." – **Participant 4**

However, one of the biggest challenges participants reported was insufficient time to engage with the full range of health hub initiatives. Several participants described their primary use of the health hub to be the canteen, with the high project pressures and subsequent long working hours preventing them from using any of the other facilities on offer. As well as the lack of time to use the facilities, the long working hours meant that participants also reported being too physically tired to go to the gym. Of particular note, over half of the participants (11 out of 20) reported not attending any of the mental wellbeing related events, with around half of those identifying time constraints as their reason for not attending. In addition, participants described the short breaks within the working day made it challenging for them to use the gym, despite its convenience on site.

"the main problem is on that particular job, it was 12 hour shifts, seven days a week. So once their shifts kicked in, it was sort of a non-entirety to use the gym and anything else. The only thing we used then was the food facilities, but you're too knackered to you know, contemplate going to the gym." – **Participant 13**

Solutions and suggestions for change to bridge to gap to best support worker wellbeing

Overall, the participants reported largely positive experiences with the health hub, with many highlighting the hub as something they would like to see implemented on future construction sites. In order to maximise the benefits workers could receive from the health hub, participants outlined some suggestions that would help to eliminate these barriers identified. Firstly, given the time constraints were identified as the biggest barrier to fully engaging with the health hub initiatives, participants suggested implementing a flexible break system, to provide sufficient time to use the facilities.

"So maybe if they change breaks and you got a longer break in the afternoon one, some people will have time to have a little workout and have a little snack? If you wanted to go to the gym, say look, I'm having an hour because I'm going to the gym and then your governors have got to understand that and say yeah. Just so you can have a bit of your time if you can. Like, if I wanted to say to him, I'm going to the gym today he'd say, yeah, do it in your break. By the time I get changed I wouldn't have time to do it, you know? So, if you said to your governor, I want to take an hour maybe, that should be flexible if you want to go to the gym, you know?" – **Participant 14**

"Not to generalise, but a lot of people within the construction industry may still have a stigma about attending sort of mental health workshops, so maybe if there's more of a compulsory for everyone (pause) and then sort of a follow up to sort of - if you would like to find more information you can, I don't know, reach out anonymously or whatever it might be." – **Participant 10**

With regard to the mental wellbeing related events specifically, alongside providing the time to attend, participants also suggested integrating the events into site inductions or making them mandatory to attend. This would be particularly beneficial given the stigma surrounding mental health that remains within the industry.

More broadly, participants also provided recommendations for how the industry could better support their physical and mental health. The majority of the suggestions related to the challenges workers face with long working hours, and the implications this has for their wellbeing, family life and financial concerns. Participants suggested enforcing tighter regulations on maximum working hours, so that they legally aren't allowed to work beyond a certain limit.

"I think that would probably be the only way that you would change time pressures for people in the industry. If you weren't legally allowed to work more than a certain amount of hours in a week... That, I think would be a good step towards getting people certainly a better homework life balance." – **Participant 5**

As highlighted previously, financial implications also play a part in the challenges and stresses experienced by workers in the industry. Alternative solutions suggested by participants included paying the same living wage for 10-hour days, or implementing paid travel time for workers living away from home.

"I would say maybe obviously as everyone is trying to get the work in, you know, are working good living wage and you do it by doing 12 hours. I don't think.. I think you lose production on the last two hours of every day anyway. I think a 10-hour a day in construction is absolute maximum for optimal performance. Obviously, everyone wants to get paid the 12s, if they bought into some sort of where you got paid 12s for 10s. I know it's all kind of in favour of the employee, but I think the actual employer would get more performance and more reliability with people only working 10 hours rather than 12." – **Participant 2**