The Effect of COVID 19 On the Management of Construction Projects In The UK

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Introduction

The Coronavirus pandemic was caused by the SARS-COV-2 which is defined as an acute respiratory disorder (Constantinou et al, 2023). The transmission of COVID 19 is through close contact of individuals who have the virus which can be either from touching contaminated surfaces or breathing in droplets that contain the virus which makes it easy to spread (NHS, 2023).

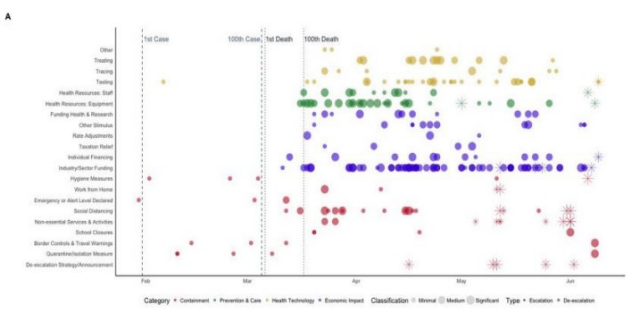

Figure 8 Categorisation process between February and June 2020 (Moy et al, 2020)

The construction industry has been affected by the COVID 19 pandemic in several ways due to the severity of the virus which led to constraints being put into place by the UK Government to stop the progression of it (Pamidimukkala and Kermanshachi, 2021). Being one of the first industries impacted, workers were subjected to an increased risk of contamination (Koh, 2020). Many projects were disrupted due to an interrupted supply chain and employee shortages due to the quarantine procedures put in place (Rouhanizadeh and Kermanshachi, 2019). This has led to a change in working methods to adapt new ways to minimise risk and adhere to COVID regulations that were put in place (UK Construction, 2021). The industry has moved towards digitalisation after COVID 19 which has ultimately led to a change in practices which have had an impact on the role of professionals and how projects are managed.

There have been studies in relation to the impact of COVID 19 on the construction industry but there are fewer studies on the insight on construction workers which include both organisational and sociological barriers (Pamidimukkala et al, 2021).

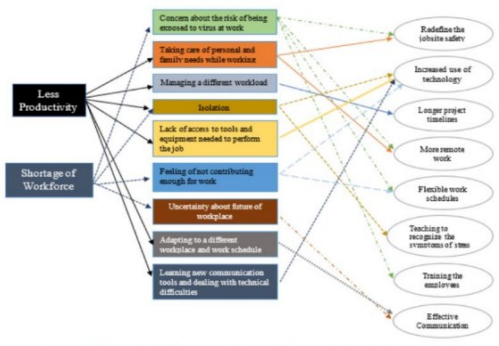

Figure 10. Demonstrates the psychological challenges on the workforce and the relative strategies (Pamidimukkala et al, 2021).

The pandemic focussed greatly on individual contact the within the workforce on projects this influences how project managers foresee the working environment (Araya, 2021). Subsequently, there is a need to establish whether the changes put in place are effective and the psychological effect they have on the workforce in the long term as after COVID 19 they are still being used.

This study aims to evaluate the effectiveness of the changes implemented and draw conclusions on how health and safety management strategies can be used to address the challenges identified as part of the research, to further improve the productivity of workers as well as the health and well-being of the workforce

Knowledge Gap

There is literature regarding the temporary organisational changes to improve the productivity of the workforce and minimise the restraints of the pandemic (Alsohassen et al, 2023). However, there is little research to suggest this is best practice to control health and safety management of the workforce on site, which focussed on not only the physical health but also the psychological health of the workforce whilst maintaining the productivity of the workforce.

This study will help identify the method that is most suitable to control both these factors when introducing the new working method within the construction industry which is sustainable. Due to COVID 19 being a recent pandemic there is very little research in relation to the effectiveness of the methods used as the industry is at a stage where it is still recovering from the impacts of the virus this study brings an insight to their effectiveness. The application of the conclusions of this study will help determine what changes need to be made in order to retain the psychological and physical health of individuals that work under these restraints which the current methods lacked in something that needs further research to evaluate these factors.

If there are similar circumstances on the future, we need the right tools in place in order for the construction industry to survive the impact which includes both projects and the workforce

Method

This paper evaluates the changes made in the construction industry during COVID 19 in relation to health and safety management focussing on the health and wellbeing of the workforce. Then discusses what is the best practice solution for organisations to maintain worker safety. First the research looks at the construction industry overall and the health and safety techniques in place before COVID 19. Then it will look more closely on the impact of COVID 19 on the industry as a whole and issues which arose from this. This research focuses on the construction industry's transition to digitalisation and the effect on workforce health and well being and productivity as a result of hybrid working. Research was carried out using an extensive literature review which looked at the overall construction industry then more specifically digitalisation and the workforce. This was followed by conducting fifteen semi-structured interviews split between health care workers and construction professionals to gain qualitative data relating to the research topic outlined above.

Key Findings

- A successful working environment should accommodate collaboration as it influences organisation as there are less distractions and allows rotations between departments for new learners through informed workplace planning that exists in offices.
- Social interaction and conversations amongst colleagues affect workers experience in a positive way.
- In an office environment there are boundaries that do not exist working in a digital hybrid environment which influence productivity of workers due to personal distractions and minimum organisation
- In a digital hybrid environment learning and adaptation is a common issue which causes a lack of clarity in responsibilities and intensifies the complexity and difficulty using digital technologies.
- The extent of psychological damage to workers in a digital hybrid environment was significant which issues like isolation and stress being the most common factors.
- Social isolation can lead to more serious mental illnesses such as depression and anxiety which a few participants said they already had this demonstrates how unsustainable digital hybrid working is on psychological health of individuals.
- Healthcare professionals advise that the most common contribution to mental health is the condition of the workplace environment itself and the lack of control making in digital hybrid working makes it unsustainable and vulnerable to work in.
- Those with little support expressed psychological damage making organisation and psychological health interlinked
- Universal learning styles should be applied when working digitally

Figure 15 Word cloud showing key themes of Psychological heath from constructions professionals perspective

Figure 16 Word cloud showing key themes of Psychological heath from healthcare professionals perspective

The key findings show that digital hybrid working should accommodate collaboration and social interactions. They also discuss the importance of boundaries adapting within a work environment, psychological issues and traumas that occur and finally the evaluation of organisational support that can help the workforce.

Recommendations

Figure 17 Word cloud of recommendations from healthcare professionals

In summary the recommendations to improve the current state of digital hybrid working for the workforce requires organisations to implement careful planning, communication and education are three vital tools that should be emphasised in digital working.