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Challenges and Associated Mental Stress During COVID-19 Work Adaptation among Employees in Ireland

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ABSTRACT

The emergence of COVID-19 has resulted in workplace adaptations globally. This study aims to understand the challenges faced by employees during COVID-19 workplace adaptation that could cause mental health distress. Fifteen focus groups were conducted with Occupational Safety and Health (OSH) and/or human resource professionals (n=60) from various occupational settings in Ireland between April and May 2021. The findings showed that stress arose from three primary sources: technostress, work-from-home adaptation, and COVID-19 longevity. Supports from organizations, such as providing timely information, Employee Assistance Programs, informal communication channels and the reinforcement of COVID-19 control measures, are discussed as the possible solutions to mitigate employees' mental stress. This study contributes to the understanding of employees' stress and the development of an intervention plan for alleviating the mental health impacts arising from occupational adaption due to COVID-19. The findings also have implications for workplace coping strategies during future global public health crises.

Keywords: COVID-19, Fatigue, Mental health, Occupational health

INTRODUCTION

The emergence of COVID-19 has necessitated workplaces globally across all disciplines and sectors having to adapt to new work practices in order to keep employees safe and healthy while also ensuring business continuity. To mitigate transmission risk, employees had to rapidly adopt relevant public health measures at various points during the pandemic (Ingram *et al.*, 2021) often without adequate psychological adjustments. Existing research has identified primary factors contributing to adverse mental health impacts on employees. This includes the perception of COVID-19 contagion risk (Hamouche,

2021), infodemic versus the unknown (Garfin, Silver and Holman, 2020), quarantine and confinement (Brooks *et al.*, 2020), stigma and social exclusion (Zhang *et al.*, 2020), financial loss and job insecurity (Brooks *et al.*, 2020).

Since the long-term mental health impact of COVID-19 may take weeks, months or possibly years to become fully apparent (Rajkumar, 2020), there is an ongoing need for further research in this area. This study discusses how workplace adaptations during COVID-19 contribute to the ongoing management of worker mental health issues, and how organizations can provide employees with supports to alleviate their mental stress.

METHODS

Occupational Safety and Health (OSH) and/or Human Resource (HR) professionals possess key insight into employee adaptation during COVID-19 and occupational strategies for mental wellbeing. A qualitative study method was thus adopted using focus groups to collect in-depth information from the cohort in the Republic of Ireland, from various occupational settings. Participants recruited from similar sectors were designated to the same group (4-6 participants per group) so that peers could exchange shared experiences.

Data Collection and Instruments

The focus groups were conducted via online Zoom™ meetings between April and May 2021. Data saturation was reached and data collection ceased when 60 participants were interviewed through 15 focus groups (two hours each). The focus group protocol (example questions in Table 1) was reviewed by multi-disciplinary experts from the research team (e.g., backgrounds in OSH, medicine, psychology and public health), followed by a 2-hour pilot test within the research team prior to data collection.

Data Analysis

Video recorded discussions were transcribed verbatim and the transcripts were imported to the software NVivo for further analysis. All participants were assigned pseudonyms according to their working sector after de-identification to align with GDPR and ethical approval requirements. The coding of all qualitative data was completed by five independent coders after an intercoder reliability assessment (O'Connor and Joffe, 2020), based on Cohen's kappa coefficient using the "coding comparison" function in NVivo. Open coding of data was conducted deductively based on the interview guide topics followed by deductive and inductive axial coding. The concepts identified during the coding process were grouped into themes and sub-themes using thematic analysis, after discussing any divergence between the coders. Focus groups 1 to 16 are labeled as FG1 to FG16 in the results tables (FG1 is the pilot test).

Table 1. Focus group interview questions (non-exhaustive).

Theme	Questions
Preparedness and support	Prompt Questions: Do you feel your organization was prepared for COVID-19 and understood the risks associated with it prior to the commencement of lockdown?
	Do you feel you were personally and professionally prepared for COVID-19 before it emerged in Ireland?
	Do you now consider OSH professionals to be part of public health also?
	Prior to COVID-19 was there an active/visible occupational health function in or for your organization?
	Prior to COVID-19 did you or your organization ever have to interact with the HSE or public health division in the Department of Health?
	When lockdown began can you describe the processes you were involved in to protect your workers?
	Potential Follow Up Questions: What was your primary source of information on how to manage the crisis?
	Do you feel management understood the importance of your OSH work in responding to the pandemic?
Actions and impact on the organization	Prompt Questions: What was the immediate impact on your workplace when lockdown began?
	How did your organization adapt with or to changing working conditions?
	How frequently did you have to update your adaptation plans?
	At any time did you have to interact with the national contact tracing team?
	Did you have enough resources to do your job effectively?
	Potential Follow Up Questions: What OSH professional resources did you access to help you develop adaptation plans?
	What resources could you have used to help you more?
The impact on workers	Prompt Questions: Did you have workers fall ill from COVID-19? From your observations how do you think your colleagues have responded to the adaptations made to keep them safe from COVID-19?
	Adapting requires behavior change, have you been able to observe such behavioral changes in your colleagues over the last year?
	As the year has progressed do you see any fatigue in your colleagues directly from the changed working conditions?
	What do you think is leading to that fatigue in your colleagues?
	What other aspects of the pandemic do you think are influencing your colleagues' behavior?
	Have any colleagues indicated mental health issues arising from our current situation?
	Potential Follow Up Questions: Is the behavioral change observed positively or negatively by your colleagues?
	What do you think could be done to alleviate fatigue from workplace adaptation?
	Did any of the workers in your organization lose family members to COVID-19?

Table 2. 'Technostress' sub-themes and example quotes.

Sub-themes	Example quotes
The pressure to learn IT knowledge	Infrastructure 2: … a woman close to retirement… she had awful problems from an IT perspective. (FG4)
	Consultant 1: There's been a bit of, a sort in the learning aspect, so the Zoom, those people who have no clue that how to use Zoom. (FG8)
Unstable internet connection	Infrastructure 2: … about 4000 people start to work from home all of a sudden, [which] puts a bit of stress on the IT infrastructure and it took a little while to catch up, and it was particularly stressful. (FG4)
	Construction 5: … we had 36,000 people on our website at one point now and it just crashed, how do we deal with that, so there was a lot of, you know, how we need to deal with all these things, and a lot of pressure. (FG11)

FINDINGS

The findings in this section relate to mental stress on employees, with sub-themes and direct quotes available from Table 2 to Table 4. Mental Stress stemmed from three primary sources: technostress, WFH (work from home) adaptation, and COVID-19 longevity.

Technostress (Table 2) indicates the stress caused by an excessive use of technology, which increased dramatically due to changed work patterns during the pandemic (Ragu-Nathan *et al*., 2008). Commonly observed sources of technostress included the pressure to learn IT (information technology) skills without adequate organizational and in person colleague supports, especially among senior-aged employees, and anxiety caused by unstable internet connection disrupting work.

Adapting to WFH arrangements (Table 3) implemented to facilitate social distancing also caused employee mental stress due to physical conditions at home (i.e., working equipment and working space), relationships (i.e., partners, family members, and kids at home), and the feeling of isolation (i.e., reduced social interaction).

Furthermore, chronic stress was reported by the participants due to the longevity of COVID-19 (Table 4), which brought on behavioral fatigue and exhaustion due to the infodemic (e.g., inability to disconnect from COVID-related news), the everchanging situation (e.g., dramatic increase of confirmed cases and frequent policy updates), and work-life imbalance (e.g., blurred work-life boundaries during lockdown and prolonged working hours).

DISCUSSION

First, this study highlights technostress as a negative psychological state related to use of technology due to COVID-19. Several attempts in organizations to counteract techno-stressors arising from the ongoing digitization

Table 3. 'Work from home adaptation' sub-themes and example quotes.

Sub-themes	Example quotes
Physical conditions at home	National Agency 1: A lot of our employees are probably in one- or two-bedroom apartments where you wouldn't swing a cat or they were sharing with other tenants, so any work that we're doing was restricted to their bedroom, so they didn't necessarily have sufficient space. (FG10)
	Construction 3: One individual has just very little space and we couldn't provide a desk … there was no way, based on their work session that we can make the situation comfortable, it's essentially a bedsit, and so when the restrictions were lifted, we brought that person back into the office. (FG13)
Relationships	Biopharmachem 2: …the first initial one was everybody thinking "oh sh** childcare" all the kids were now at home. That was I think our first one of everybody going, 'Oh crap, what are we gonna do?' (FG3)
	Infrastructure 7: Any families or relationships that were anywhere on a brink, when they, everybody got locked up together, it must have been awful to have to try and live with them. (FG8)
	Biopharmachem 1: … his mother in the nursing home and he couldn't get in to see her … one morning the guy started breaking down crying [be]cause he wasn't going to see her, and he knew she was going to pass away. (FG3)
'Life on a screen' - a sense of isolation	Construction 11: some people are sick of being at home looking at a screen… they want to come back, and they want the social interaction. (FG12)
	Infrastructure 2: … a higher level of stress whether that's because of the reduced social interaction, because most of us are working from home, rather than the face-to-face … sum it up as isolation or a sense of isolation. (FG4)
	Biopharmachem 3: some people suffer from the disconnection, not being able to meet their colleagues … how do you keep the healthy team dynamic and the challenge and the culture piece for keeping people safe … we're still faced with that discussion about how a lot of people are craving that human contact. (FG14)

of work were made prior to COVID-19 (Gaudioso, Turel and Galimberti, 2015; Hauk, Göritz and Krumm, 2019). During the pandemic, however, IT usage proliferated dramatically among employees required to work from a distance. Technostress has been shown to be associated with worker age (Hauk, Hüffmeier and Krumm, 2018), as demonstrated in this study, as older employees manifest higher levels of stress arising from the use of IT. Employees who find it difficult to understand IT knowledge in occupational settings may feel threatened by job loss due to technology incompetence, a phenomenon referred to as techno-insecurity in existing research literature (Tarafdar *et al.*, 2011). The pressure caused by ambiguous IT expectations, known as

Table 4. 'COVID-19 longevity' sub-themes and example quotes.

Sub-themes	Example quotes
Infodemic	Local Authority 5: The right to switch off isn't there, and people are starting to get burnt out from that and a little bit of frustration is starting to seep into the system. (FG9)
	Financial 2: People are just tired of it…they're tired of the conflicting information that's going around, so today I think it's tiring for everybody. (FG3)
An everchanging situation	Consultant 1: There's no light at the end of the tunnel... things were changing week to week … very difficult with that, as I say, grasp the eels, it was just changing … even to this day, it's changing. (FG8)
	Consultant 4: The information coming in, was changing as well, so the fluidity in posed challenges for us to give fluidity out to seek an adaptive change that was not punitive, and they had to buy in. (FG15)
Work-life imbalance	Financial 1: A lot of people found themselves working longer and extended their hours, so there were concerns from HR for that, so we have to communicate a lot on that… remind people your hours are your hours. (FG16)
	Logistics 1: Our productivity rates went way up because people, the unfortunate thing is that people were working too hard from home, you know, they weren't switching off. (FG13)

techno-uncertainty, can explain the anxiety caused by unstable internet connections experienced by study participants. Meanwhile, stress is also common among employees in technical support provision who feel incompetent in facilitating IT set-up and usage for their colleagues (Tarafdar *et al.*, 2011). Though few coping strategies specific to the handling of techno-stressors were provided by study participants, generic strategies from existing research include seeking instrumental support and IT disengagement (Hauk, Göritz and Krumm, 2019).

Second, with COVID-19 control measures implemented nationwide, most organizations had to adapt their working arrangements to follow new policies and many employees were sent home to work. As a result, employees faced various difficulties ranging from the physical environment at home to strained relationships or uncomfortable feelings caused by isolation. Our study suggested that organizations should allow employees to return to the workplace if they lack sufficient space to work from home. Facilitating the return of employees to the workplace will inevitably alleviate other issues caused by WFH adaptations. However, the hybrid working will require organizations to consistently reinforce COVID-19 related control measures to ensure employee safety at work. Furthermore, organizational Employee Assistance Programs (EAPs) should focus more on mental health and be made accessible to all employees in need of additional support (Matthews, Gerald and Jessup, 2021).

Finally, as our fight with COVID-19 has become long-term, senior management should allocate sufficient resources for employees to cope with chronic stress and associated symptoms. To combat mental stress stemming from the infodemic (Solomon et al., 2020), access to evidence-based guidance on contagion prevention should be provided by the organization. In addition, COVID-19-related guidelines, risk assessments and implemented control measures should be consistently updated to help employees facing multiple workplace adaptations cope with the everchanging situation. Along with formal EAPs embedded into most organizations' OSH systems, communication with employees can be facilitated via informal channels such as online coffee breaks and casual chats following work meetings. This can improve employees' work-life balance by increasing non-work-related social opportunities.

CONCLUSION

In conclusion, this is the first qualitative research conducted with OSH/HR professionals in the Republic of Ireland regarding COVID-19 work adaptation. Study findings provide valuable insights for employees experiencing the mental health impacts of pandemic workplace adaptation measures. The potentially conflicting actions required to protect employees' physical health (mainly from COVID-19) and mental health remains a challenge in the workplace and will require further discussion between experts in OSH, psychology and other relevant disciplines. For example, as existing COVID-19 related research are aseptic with respect to technostress (Hauk, Göritz and Krumm, 2019), post-disciplinary studies are recommended in the future to focus on individual coping strategies in occupational settings. This study contributes to the understanding of employee stress arising from occupational adaptions to COVID-19, thereby facilitating the development of an intervention plan for alleviating associated mental health impacts. The findings have important implications for workplace coping measures used to combat similar issues that arise during future global public health crises.

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