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Conference Paper

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Summary

Our ability to work remotely has many benefits, but for those working long hours, establishing firm boundaries between work and home, and finding space to 'switch off' can be a challenge. In this scenario, problematic patterns of over-engagement with both work and internet use may arise. Mindfulness interventions, which focus on acceptance and being in the present moment seem to offer promising possibilities to help us switch off. However, they are often time-consuming and therefore not suited for long-hours workers who are at risk from excessive working and compulsive internet use. A randomised control trial was carried out to test the effectiveness of a brief mindfulness intervention (involving daily ten-minute practice for two weeks) to reduce early signs of compulsive internet use and work. Participants were randomly assigned to one of three groups: the mindfulness intervention, gradual muscle relaxation or control group. Self-report measures were taken at three times (pre-intervention, post-intervention and follow-up). Findings revealed that although improvement in participants' ability to focus on the present moment was detected only in the mindfulness group, both the progressive muscular relaxation and the mindfulness group experienced a similar reduction of compulsive internet use compared with the control group. I discuss some of the implications of these findings in the context of the 'always-on culture'.

Background

The ability for many workers to deal with work demands 'whenever and wherever they are' has many potential benefits, including the ability to fit family around work commitments more conveniently (Mazmanian et al 2013, Kelliher and Anderson 2010). Perhaps one of the key challenges of this technology-enabled flexibility is working alongside different stakeholders, each with their own working preferences. This can be particularly problematic when power dynamics are involved, where those in the less advantageous side can easily feel the need to stay 'connected' in order to address the demands of those perceived as powerful (Lewis et al 2017). Interestingly, evidence shows increased work intensification, both quantity (that is, more hours) and quality (that is, more effort), from people who spend some of their working time remotely (Bloom

2015, van Echtelt et al 2006, Hilbrecht et al 2013). For instance, Kelliher and Anderson (2010) compared the experiences of workers from a variety of sectors who were offered remote working for a number of years and had taken the offer, versus those who had the offer but continued working on-site, and found that remote workers would work harder and/or longer than their on-site counterparts.

The traditional '9–5' work pattern provided a certain stable structure to people's lives such that any time after work and before going to bed was 'off-work time'. The responsibility of finding the time and space for recovery in this 'always-on' culture now falls primarily on the individual (Lewis et al 2017). While many have strategies and resources to organise their leisure and work time effectively, those working long hours might be more vulnerable to suffer the consequences of intermittent, unstructured and/or limited recovery time (Quinones and Griffiths 2017). Recovering from work is not just desirable, but a fundamental health process as it helps us replenish resources and prevent the often useful and unavoidable daily stress from accumulating into chronic and harmful stress (De Jonge et al 2012, Guerts and Sonnentag 2006, Quinones and Griffiths 2017, Quinones et al 2016).

Working online allows switching between work and leisure almost intermittently. Considering the accessibility to the endless source of stimulus on the internet, it is not unreasonable to expect long-hours workers to use internet-enabled activities to help them switch off. However, this may not always be effective as a recovery mechanism. Thus, a recent diary study found that those using the internet excessively after work experienced less recovery and higher levels of stress than those who engaged in a range of recovery activities online and offline (Quinones and Griffiths 2017).

Compulsive internet use features loss of control over the use, experience of withdrawal and interpersonal conflict as a result of the use (Griffiths et al 2016). Although these symptoms are suffered by only a minority, a much larger proportion of adults report high engagement with the internet and some of the early signs of CIU (for example, excessive use) (Meerkerk et al 2010, Charlton and Danforth 2009). Importantly, this high engagement increases the likelihood of developing more harmful CIU symptoms, particularly if stressful life events arise (Quinones and Kakabadse 2014, 2015, Davis 2001). Furthermore, there seems to be a reinforcing mechanism in the relationship between excessive internet use and working excessively and compulsively; those who work long hours and who also have high internet engagement could stand to benefit most from effective coping strategies (Quinones et al 2016). Bearing in mind the importance of recovery for long-term health and well-being (Guerts and Sonnentag 2006, Sonnentag and Fritz 2007), people who exhibit early signs of excessive or compulsive internet use and work long hours could benefit from effective strategies to help them switch off.

Switching off through mindfulness

Mindfulness intervention might prove useful in helping people to deal with the early signs of maladaptive internet use while learning to switch off through proven well-being-enhancing strategies. Mindfulness has been defined as *'paying attention in a particular way: on purpose, in the present moment, and non-judgmentally'*, and interventions involving mindfulness are proving effective in their application to treat a wide range of mental health problems, including depression, anxiety and addictions (Baer 2006). Mindfulness interventions typically include: awareness of the body; mindful movement; and sitting meditation. The focus in the present moment, accepting unwanted thoughts and emotions, can be particularly suited to helping those experiencing difficulties or problems as a result of their excessive engagement with the internet, since often they are absorbed with finding the next opportunity to engage with it.

There is nonetheless an important obstacle when it comes to implementing these interventions to the particular audience we are trying to help: long-hours workers with early signs of compulsive internet use. This is the time commitment. These people are by definition struggling to find spare time, or may not be prepared to invest much time in a treatment when the problem has not fully developed. These interventions are typically eight weeks long and participants must engage in a minimum of 25–50 minutes practice a day. Importantly, preliminary evidence supports the use of shorter, self-guided mindfulness interventions (Krusche et al 2012, Cavanagh et al 2013). The problem with this preliminary evidence is that it is scarce and the research designs have not always been as rigorous as desirable (for example, involving alternative treatment groups, follow-ups). More recently, however, a meta-analysis based on eight randomised control trials found support for shorter, self-guided mindfulness interventions being effective to improving well-being (Jayawardene et al 2017). In short, the aim of this study was therefore to test the effectiveness of a shorter and flexible self-led intervention (ten minutes a day for two weeks), which would be easier to integrate with people's busy lives, among people who exhibited early signs of both CIU and working excessively.

Research design

A randomised controlled trial was used. Two changes were introduced to improve the quality of previous brief-intervention evaluation studies: (1) the follow-up assessment and (2) the second intervention group. Variables of interest were measured before, immediately after the intervention and then two weeks later. Participants were randomly allocated to one of three groups: the brief mindfulness intervention group; a control group; and a group who received a brief muscular relaxation intervention. By including the muscular relaxation group, we were able to test whether the mindfulness intervention had positive effects over and above a strategy that has previously been found to be effective in reducing stress in general.

Participants were recruited through a market research agency. To be eligible to take part, the following requirements had to be met:

- long-hours worker (that is, more than 40 hours per week)
- show initial signs of compulsive internet use
- live with their partners (partners were included in the study because a key dimension of CIU is family conflicts caused by excessive internet use)
- lack mindfulness experience.

Those who passed the screening criteria were randomly assigned to one of the three study groups for a period of two consecutive weeks. Those in the mindfulness group were given a code to access a well-known mindfulness application: Headspace, where mindfulness is explained to users step by step. Users were given daily access to ten-minute meditation podcasts through the app or directly from the website. The application sent daily reminders to participants. The muscular relaxation group was given access to a ten-minute muscular relaxation podcast. The control group received no specific intervention. After the study, all participants were allowed to access the different intervention resources, so that they all could enjoy the benefits of different practice.

Results and practical implications
Statistical tests showed that the mindfulness group, compared with the control and relaxation groups, experienced a significant decrease in anxiety and depression and increased on two of the mindfulness practice dimensions (observation and non-reaction). However, there were no significant differences between both relaxation and mindfulness in their effectiveness to reduce early signs of CIU. Scores on working excessively remained the same after both interventions.

Although further studies with longer follow-up periods are required, the results seem to point out that both methods effectively trigger the relaxation response and help us switch off. Hence, the underlying mechanism explaining the lower compulsive internet use scores could be our conscious effort to engage in these equally effective arousal-lowering activities, as opposed to continue running on automatic pilot and going online. Importantly, since this was only a 10-minute commitment, these findings are particularly promising to prevent compulsive/problematic behaviours and to promote healthy lifestyle choices, in particular among those with initial signs of compulsive internet use who work long hours.

Recommendations
- A small investment of time (that is, ten minutes a day) can really make a difference to prevent stress and help people to use technology in a healthier way – thus having a busy life is no longer an excuse.
- Work organisations might enjoy the benefits of a healthier and more productive workforce by providing free access to brief mindfulness and progressive muscular relaxation podcasts. These efforts should be complemented by encouraging and providing the space to practise during the work day (only ten minutes!).

- Encourage people to engage with their preferred switch-off strategies following an evidence-based approach rather than one based on the latest 'fashion'. In this particular study we found that mindfulness is equally as effective as traditional relaxation techniques.
- Building an e-resilient culture in your organisation is paramount. This means that whatever resources are there for individuals to draw on will not work if you have implicit rules of 24/7 connectivity with work. Ask yourselves:
    - Are you promoting 'always-on' (for example, Sunday emails)?
    - Are there particular groups that can be more pressurised to be 'always on': junior employees, members of minority groups, and so on?
    - What can you do to challenge these practices?

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