Employees' perceptions of the impact of work on health behaviours

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Abstract

Research examining the impact of work on health behaviours has rarely provided a complete picture of the impact across health behaviours. Twenty-four employees were interviewed about their smoking, drinking, exercise and eating. Themes included the impact of *the work environment*, including policy, convenience and workplace cultural norms; *business events* effecting one's routine and again convenience and workplace

cultural norms; *being busy at work* effecting time and health behaviours being used as coping responses on health behaviours and is primarily detrimental.

Introduction

Health behaviours, especially smoking, alcohol consumption, diet and exercise, have long been linked to cardiovascular disease (World Health Organization Europe, 2011), which is a leading cause of death. Work stress is also linked to cardiovascular disease (e.g. Kuper and Marmot, 2003) and this relationship may occur via the impact of work stress on the performance of health behaviours (Payne et al., 2012). Health behaviours may be used as strategies to cope with stress, or the demands of the work role may conflict with participation in healthy behaviours.

Much of the research on work stress and health behaviours is based on the Job Strain Model, which posits that a combination of high job demands and low job control is harmful (Karasek, 1979). Some studies have shown links between job strain variables and problem drinking, smoking, sedentary behaviour and unhealthy eating and high body mass index (BMI) (e.g. Hellerstedt and Jeffrey, 1997; Kouvonen et al., 2005a, 2005c, 2005d; Lallukka et al., 2004; Landsbergis et al., 1998; Tsutsumi et al., 2003). However, some studies have failed to show links (e.g. Kouvonen et al., 2005b; Lallukka et al., 2004; Landsbergis et al., 1998; Overgaard et al., 2004).

Other job characteristics have also been investigated. For example, Steptoe et al. (1998) and O'Connor et al. (2008) found that greater hassles were related to increased consumption of 'fast foods' and snack foods, respectively. Increased work hours have been related to increased con- sumption of calories, fat and sugar (Wardle et al., 2000), increased snacking (Jones et al., 2007) and reduced exercise (Artazcoz et al., 2009; Jones et al., 2007). Reduced levels of physical activity and unhealthy eating behaviours have been found among employees reporting family-to-work con- flict (Allen and Armstrong, 2006; Roos et al., 2007). Finally, the physical availability of alcohol at the workplace and the social availability (i.e. the workplace cultural norms relating to using alcohol) appear to influence its consumption (Ames and Janes, 1992). For example, MacDonald et al. (1999) found that perceptions of a 'drinking' culture and social pressure to drink were related to problem drinking.

While much research suggests that work stress is detrimental to healthy behaviour, some research suggests that work stress facilitates healthy behaviour. For example, Ingledew et al. (1996) conceptualise exercise as an adaptive coping response to stress, and Grzywacz et al. (2007a) found that perceived workplace flexibility was related to increased physical activity. Tsutsumi et al. (2003) found lower prevalence of smoking in employees in high strain jobs, and Shiffman et al. (2002) found that people were less likely to smoke while they were working. Payne et al. (2005) found that people in low-strain jobs ate the most unhealthy snack foods. Other research has found that people may manifest alternative reactions to work stressors. For example, some people eat more when experiencing stress and some eat less (e.g. Stone and Brownell, 1994). Similarly, Jones et al. (2007) found that negative affect was related to reduced exercise, positive affect was related to increased exercise and both negative and positive affects may be related to increased alcohol consumption.

Compared to the amount of quantitative research, there is relatively little qualitative research on work stress and health behaviours (Payne et al., 2012). However, some research has examined perceived work-related barriers to health behaviours using qualitative methods. Fletcher et al. (2008) found that time was the most common barrier to participating in work-site physical activity programmes. Tavares and Plotnikoff (2008) found that lack of time (e.g. due to deadlines, no opportunities for breaks, long work days, no flexibility), demands/responsibilities (e.g. work stress/load, cultural norms such as being expected to be at your desk during lunch) and the physical environment (e.g. lack of facilities) were barriers for female employees. With respect to the difficulties of combining work and food choices, Devine et al. (2003) identified three choices (e.g. time, energy), strategies used to manage these food choices (e.g. eating junk and take-out food) and spill over of these strategies into family roles.

The present study

The present study aims to provide a broad examination of the impact of work across health behaviours. It adds to previous research in several ways. First, it examines the range of factors that may impact on health behaviour, including various work stressors, other barriers

and possibly more subtle pressures and influences from colleagues, employers and the workplace culture. Second, it takes a bottom-up approach by interviewing employees about their perceptions and experiences of the impact of work on health behaviours and as such it does not constrain participants' responses by using survey methodology and a particular theoretical approach, such as the Job Strain Model. Third, rather than focusing on a single health behaviour, it focuses on the four key behaviours implicated in cardio- vascular disease to enable examination of whether the impact of work is the same or different across behaviours. Finally, it focuses on factors that may facilitate as well as inhibit health behaviours. In summary, this holistic approach will provide a more complete picture of the range of work factors that are implicated across health behaviours.

Method

Participants

Participants were a convenience sample of UK employees of a multinational company involved in the design, marketing and sales of computer hardware and software to businesses. Employees in some roles within this company have flexible work practices in terms of both hours and locations, and thus may work from home or the office or be visiting customer sites and attending meetings.

Through posters and phone calls and emails from administrative staff, employees using one of the company sites were invited to participate in interviews, which took place on seven specified days over a 3-week period. Twenty-four employees agreed to be interviewed and their informed consent was obtained. Interviews took place in a small meeting room.

A total of 14 participants were men. The mean age was 35 years (standard deviation (SD) = 10.26, range 18–57). Of the 24, 17 participants were married or living with a partner, while 12 participants had no children. The mean number of years participants had worked in their present position in the company was 3.9 years (SD = 5.92, range 4 months to 25 years). Participants worked in a range of jobs: 5 in administration, 5 in sales, 5 in marketing, 1 in project management, 2 in resource management, 2 in computing, 2 in design consulting and 2 were service directors. The service directors, one employee in resource management and one

in administration, were senior staff with significant line management responsibilities. Overall, 15 employees reported having flexibility in terms of working hours and locations and the rest had more conventional work patterns.

Semi-structured interview

A semi-structured interview format was used to elicit information from employees regarding work and health behaviours. Interview questions were discussed with key senior management contacts in the company and piloted on three employees. The interview was introduced by eliciting some demographic information (e.g. age, marital status, number of children) and explaining that participants would be asked about four aspects of their lifestyle that would be collectively referred to as 'health behaviours': smoking, drinking alcohol, exercise and diet. The UK government recommendations regarding these behaviours (Department of Health, 2004, 2007; Food Standards Agency, 2009) were discussed to facilitate mutual understanding.

The interview schedule consisted of open- ended questions. Participants were asked to talk about their health behaviours in an average day/ week; whether they considered their lifestyle to be healthy; what health behaviours they were most and least satisfied with and why; what they had done, had tried to and/or could do to improve their health behaviour and what had got in the way. They were also asked some questions about their job, such as what they liked and disliked. Next, a critical incident technique was used (cf. O'Driscoll and Cooper, 1994) where employees were asked to discuss a specific incident that had occurred at work in the last two weeks that affected their health behaviour in a negative way. The details of this incident were discussed, as well as any other times or situations at work that disrupted their health behaviour. The same technique was used for positive influences on health behaviour. Next, they were asked about each of the health behaviours in turn, in order to gather more detailed information and ensure nothing was missed. Questions included whether they had engaged in each behaviour in the last day/week, when, how often and the details of the behaviour, and whether this was a typical day/week and if not, why not. They were then asked

whether there were situations or events at work that trigger the behaviour or lead to engaging in it more than usual, and then less than usual, and whether there are any particular moods associated with this. Interviews took between 30 and 45 minutes and were tape recorded and transcribed verbatim.

Analysis

Since there appears to be no previous research asking employees about their experiences of the impact of work across health behaviours, the aim of the analysis was to give a broad overview or description of the data. Therefore, verbatim transcripts from the interviews were analysed using thematic analysis (TA). TA is not theoretically bounded and so it is a flexible technique for identifying, analysing and reporting patterns (themes) in the data (Braun and Clarke, 2006). Braun and Clarke's six- stage process was used to conduct TA. This involved reading and rereading each transcript in detail (step 1) and coding participants' responses into categories that summarise the content of the data, guided by the aims of the study (step 2). The categories were all references to the impact of work on health behaviours, both positive and negative, that were offered by more than one participant and that could be identified at a semantic level. This was done separately for each of the four health behaviours. A second independent researcher also coded the data, and agreement at .70 was considered acceptable. The categories were then collated into sub-themes and themes (step 3) and were checked in relation to the categories (to ensure that all categories were encompassed) and the data set as a whole (to ensure that the entire data set was represented) (step 4). The themes for each health behaviour were broadly the same and thus four themes traversed the four health behaviours. Details of the sub-themes were refined and themes and sub-themes were named (step 5). To illustrate each theme, quotes from participants were collated (step 6).

Findings

A total of 9 employees reported engaging in regular exercise, 21 reported that they drank alcohol at least twice a week but no one reported exceeding the recommended daily allowance on a regular basis, 7 were smokers and 4 felt that their diet was healthy (9 felt that

it was unhealthy and 11 felt that it was reasonable but could be improved). The employees'
greatest concern was a lack of exercise (11 employees were most concerned about this),
although 5 of the 7 smokers were most concerned about this aspect of their behaviour. No one
was concerned about their alcohol consumption.

Four themes were identified from the TA: the work environment, business events,
being busy at work and work stress. The work environment and work stress were relevant to
all four health behaviours, but business events was not relevant to smoking and being busy at
work was not relevant to alcohol consumption.

Employees mentioned several ways in which work helped them to behave healthily.
However, nine employees explicitly stated that work had no positive influence at all, and so
work was mainly reported as having a disruptive impact on healthy behaviour. Both positive
and negative affects of work are discussed under each of the four themes.

Not all themes and sub-themes were reported by all participants and not all health
behaviours were relevant to all participants, for example, a participant may feel that work
only influences two of the four health behaviours and for them this influence may only be
reflected in two of the four themes.

Theme 1: the work environment

The *work environment*, including aspects relating to three sub-themes, namely,
policy, convenience and temptation, and workplace cultural norms, may promote or impede
performance of all four health behaviours.

Policy. No employee *made* reference to any workplace policy relating to alcohol.
However, smokers reported that the ban in the United Kingdom on smoking in public places
helped to reduce smoking while at work.

I can go for a whole day without one but that's to do with your environment and
whether you're busy. The non smoking policy means I smoke less. (Female
participant, age 27)

However, some employees reported making up for not smoking at work by smoking more outside of work.

I'll have a quick few cigarettes before work and the same applies at lunch, I'll get a few cigarettes in, or when going out to meetings or client sites; you know you're going to be there for a good few hours so rather than having one you may have two or three if you've got time, just to get a few cigarettes in. (Male participant, age 29)

Flexible working was another aspect of policy that had a positive impact, this time on exercise.

I have control of my own time, so I'm not dictated to and have the freedom to go to the gym at lunch- time, as long as I get the work done by the deadline. It's results that matter, not how they're achieved, so time flexibility is good. (Male, age 39)

Convenience and temptation. There were mixed feelings about the provision of facilities for exercise. Although corporate gym membership at a local gym was considered to facilitate exercise by some employees (first quote below), others criticised the lack of on-site facilities for exercise (second quote below).

The gym is near work and corporate membership has pushed me to go regularly. (Female, age 28)

If they had a gym here or some other leisure thing it would be a great motivator to do more exercise. I could go at lunchtime. We do have a deal with a local gym but it's the effort of going to join and the expense. (Female, age 25)

There were also mixed feelings about the provision of facilities for healthy eating. The on-site canteen and shop were generally considered to be a problem as they provided convenient access to 'unhealthy' food and limited 'healthy' options, thus, putting temptation of unhealthy food in people's way.

I don't get chips at home so if chips are in the canteen I'll have them because I like them. (Male, age 34)

I may not eat chocolate if the shop wasn't there and convenient. It's that time of day when you need to break up the afternoon. (Female, age 25)

However, some employees felt that the can- teen provided them with a proper meal each day, which they would not otherwise have.

Having the canteen here means I get more of a proper lunch than I would do otherwise. (Male, age 35)

Workplace cultural norms. Eating, drinking and smoking are seen by some employees to be part of socialising with colleagues. This social avail- ability has previously only been discussed in research on alcohol (Ames and Janes, 1992). However, workplace cultural norms also appear to be relevant to smoking and eating (second and third quotes below).

We often go to the pub after work. It's part of the culture here, going for a drink. (Female, age 21)

Sometimes if I want to go and chat with someone we'll do it over a cigarette. (Female, age 27)

When you have a late night working, you'll order pizza. You have to get what other

people want like a thick, meaty pizza rather than a thin mush- room one or Chinese.

(Male, age 30)

However, drinking may not necessarily be a detrimental health behaviour if people

are drinking within the daily recommended allowance, and in fact, it could have perceived

benefits. No employees reported being concerned about the amount they drink or exceeding

the recommended daily allowance on a regular basis, and several reported that they

considered drinking with colleagues to be good for them.

This whole situation has been good for me. Even though I am drinking more, I'm

having a good time ... this is healthy and good for me to get out, socialise and know

how to have a good time. (Female, age 21)

Theme 2: business events

Business events, such as business lunches and dinners and travelling for business,

were viewed as a problem for eating, drinking and exercise. Three sub-themes were

identified: routine, convenience and temptation, and workplace cultural norms. The last two

of these are also sub-themes under the *work environment*. However, they were not considered

themes in their own right due to their differential influence under each theme. For example,

the workplace cultural norms that operate in the general work environment differ from those

that operate when travel- ling on business or when entertaining clients.

Routine. Travelling for business breaks the 'normal' routine, which is especially

problematic for exercise.

When travelling, if working late on a bid, I don't want to get up for the gym. It takes days to recover to a normal sleeping pattern. It upsets my routine. In terms of exercise, routine is important. (Male, age 30)

Travel, being away from home, not having standard hours, you know, the same each day so you can get into a routine. Not having a routine due to work makes it difficult to make it [exercise] a routine thing. (Male, age 50)

Convenience and temptation. Business events change the availability of facilities for healthy behaviour such as exercise and instead put temptation of food and alcohol in people's way.

When away from home you don't look after your- self so well ... I also tend to overeat, overindulge, because breakfast is included in the hotel price and the meal is on expenses. (Male, age 40)

Drink is a problem because I'm frequently in hotels with nothing to do and diet is also difficult because the food is richer and you don't know what's in it and I'm not very disciplined when I'm away. (Male, age 39)

Workplace cultural norms. Eating and drinking are part of socialising at business events, although as discussed earlier, this may not actually be detrimental if people are drinking within the recommended daily allowance. No participant reported exceeding these limits other than very occasionally.

When you go away, you're in a hotel, you have wine for dinner, stay in the bar and be sociable rather than sitting in your room alone. (Male, age 30)

When taking clients out, if I eat like a rabbit it makes them feel uncomfortable so I eat what they have. (Male, age 34)

However, although workplace cultural norms tend to lead to increased alcohol consumption, some employees reported deliberately not drinking at business lunches.

If I go for a customer lunch I tend not to drink as I like to keep a clear head in that sort of situation. (Male, age 35)

Theme 3: being busy at work

Being busy at work primarily leads to a sense of not having enough time (first sub theme) and being too tired (second sub theme) for exercise or to eat properly, although many employees felt that this was just an excuse. However, in contrast, being busy reduces smoking and for some employees, work controls eating.

Time. For many employees *being busy at work* and working long or unsociable hours resulted in a sense of having a lack of time to exercise.

I had the intention to go to the gym on 2 days but on both days I was late home so couldn't go. Something changed during the day in my work- load to prevent this. (Male, age 29)

In particular, the quote may suggest that unexpected time demands at work may be particularly problematic. However, many people who say there is no time acknowledge that this may be an excuse.

It's been busy meaning I don't have spare time to go to the gym but it's really an excuse. It wouldn't stop me if I really wanted to. (Female, age 25)

The impact of lack of time on eating tended to lead to employees feeling they do not have time to eat at all (or eat 'properly') at work and/ or after work.

I eat less at work because I don't have time to eat or time to think about eating as much. (Female, age 54)

I don't want to spend an hour cooking so I do something quick. Maybe if I had more time I'd care more about it but there aren't enough hours in the day. (Female, age 21)

As well as a lack of time causing a problem for eating, not being busy enough and being bored could also be a problem.

The computers weren't working properly and I was waiting around for something to happen and everything was taking so long, so I sat and ate chocolate to make it easier, so boredom and stressful situations make me go to the shop and get something to eat. (Female, age 25)

However, some people said that being busy at work controlled their eating and thus had a positive influence.

If I'm bored, I'll eat junk. For example on a day off I'll eat a lot more and I'll pick and not eat proper food. (Female, age 24)

Being busy also had a positive influence on smoking. Smokers said they did not have time to smoke when busy at work.

It can be difficult to get away to have a cigarette. If I'm really busy that will take my mind off going for a cigarette. (Male, age 29)

Tiredness. Being busy at work was reported to lead to tiredness and undermine motivation. Many employees reported being too tired to exercise or to prepare and cook food and that they would prefer to do something else outside of work hours.

If I'm too busy, a lot on, lots of problems then I won't get time to eat and think I'll catch up later and some times when I get home I'm too tired so don't and just go to bed. (Female, age 24)

I would like to do more exercise but it's having the time and energy. When you finish work you're so tired you can't be bothered to go and do it. I'd rather go home and watch TV rather than running around the gym. (Female, age 18)

However, many people acknowledged that if they did push themselves to exercise they believed it would make them feel better.

Going to the gym makes me feel more relaxed, think straighter, want to do more but I would need to get up so early which makes it a long day ... I know once I get going I will enjoy it but it's making that first step. (Male, age 34)

Theme 4: work stress

Work stress has been the main focus of much previous research investigating work and health behaviours. In the present study, two sub- themes, namely, 'bad' days and 'good' days were identified. On 'bad' days, health behaviours appeared to be used as a coping response (i.e. to reduce stress), which was a positive response only in the case of exercise, leading to increased exercise. Some employees reported that work stress had no influence on their health behaviours and others reported that it affected several, but most people reported that it mainly affected only one health behaviour.

Bad days. Smoking and drinking may be used to cope with 'bad' days at work or a specific 'stressful' incident. Employees talked about going for a cigarette as an escape or distraction and to reduce tension that is part of a bad day at work. Many of the specific incidents that constitute a bad day at work and lead to this seemed to be of an interpersonal nature, for example, disagreements and communication problems with colleagues or clients.

> If I'm under pressure or tense I will have a cigarette. Smoking is a release valve. If you've got to get away from your desk, got to think about things, I can walk away from my desk and be away from people and relax. (Female, age 36)

Employees frequently referred to having a drink to relax after a bad day at work. Many of the specific incidents that constitute a bad day at work and lead to this seemed to relate to frustrations caused by being let down or delayed by colleagues, lack of resources, company red tape, workplace politics or things going wrong, all of which were perceived to affect people's ability to do their jobs effectively. However, while a few worrying examples of binge drinking were reported (see quotes below), these incidents were very rare.

> People letting you down, saying things will hap- pen that don't and crap reasons why they don't and people not caring why they haven't happened. I hate being let down by anyone and hate letting people down. I take it personally. One day I went home early and had a big gin and tonic in a pint glass and put my feet up. (Male, age 34).

> Sometimes you just want to get out of here and get drunk. Like last night, nothing specific happened, it was just a build up so I thought I'd forget it and go and have a drink. Things like not being able to get responses from other departments, not being able to get pricing, it's frustrating. (Male, age 37)

In terms of eating, some employees reported 'comfort eating' after a 'bad' day:

When I get stressed out I eat things I shouldn't eat because I'm pissed off. I wouldn't eat chocolate but I may go home and eat before my wife gets home and not tell her. I'm not sure why; perhaps you think someone's been naughty to you so you'll go and be naughty. (Male, age 34)

The only positive impact of work stress on health behaviour was the use of exercise in coping with work stress.

If I'm depressed, any kind of stress or emotional thing, just to forget about it, I do more exercise. (Female, age 21)

Good days. Although health behaviours may be affected by work stress and thus some behaviours may increase as a result of a 'bad' day at work, some employees reported being more inclined to exercise or to have a drink after a good day at work. A good day might constitute a positive event occurring, completing a project, or feeling good after a busy, demanding and/or productive day.

I would be feeling in a positive mood if I was going to exercise. (Male, age 37)

I would drink after a bad day but also if I've had a busy day and you're kind of up and feel hyper I'd say let's go out and do something. (Female, age 21)

The last quote also illustrates that the same people may engage in the same behaviours on both good and bad days.

Discussion

This research aimed to provide a more complete picture of the range of work factors that impact on health behaviours and to explore whether the impact of work is similar or

different across these health behaviours. Four themes were identified. Work appeared to disrupt healthy behaviour due to aspects of the work environment, business events, being busy at work and work stress. However, within each of the four themes, employees also mentioned ways in which work helped them behave healthily. The themes ran across the four health behaviours but with a different emphasis and different pat- terns of sub-themes for each one. Each health behaviour will now be discussed in turn.

Employees generally felt that workplace cultural norms led to increased drinking, although most employees viewed this in a positive light (i.e. enjoyable and healthy to socialise over a drink), probably because no one reported exceeding the recommended daily allowance on a regular basis. Furthermore, while many participants respond to stress by having a drink (at home or with colleagues) in order to relax, which appears to support previous research (e.g. Tsutsumi et al., 2003), this was not some- thing that happened frequently, and incidents of binge drinking in response to stress were rare. In addition, employees also drink after a good day at work. Indeed, Jones et al. (2007) found that both negative and positive affects were associated with increased alcohol consumption. Thus, the social availability of alcohol at the workplace appears to be important but the physical availability at business events is also relevant (Ames and Janes, 1992). However, while work was certainly found to have a negative impact on drinking in the present research, this may be more beneficial than detrimental, especially psychologically, as long as people are not exceeding the recommended daily allowance. Workplace cultural norms in relation to behaviours other than alcohol consumption have been neglected by earlier research. However, the physical and social availabilities of food and the social availability of smoking also appear to be important.

The 'no smoking' policy and being busy at work had a positive effect in the present research in terms of reducing smoking at work (although workplace cultural norms were unhelpful), but some employees made up for any reduction in workplace smoking by smoking more outside of work. Most smokers would respond to stress by going for a cigarette as a distraction, which appears to support previous research (e.g. Kouvonen et al., 2005d;

Lallukka et al., 2004). Thus, work appeared to have equally positive and negative impacts on smoking in the present research.

Facilities at work were considered by employees in the present research to encourage consumption of unhealthy foods through convenience and temptation, although some employees felt that the canteen at least provided the opportunity to have a proper meal each day. Being busy at work was perceived to preclude eating properly (or eating at all), and not being busy enough and feeling bored may encourage snacking on unhealthy foods. This is in contrast to most previous research on the impact of long work hours on food consumption, which generally supports increased eating rather than reduced eating (e.g. Jones et al., 2007; Wardle et al., 2000). Some participants also felt that work controlled their eating, and it may be that these employees have a better balance in their level of work activity.

Previous research on work stress has tended to find that some people eat more when under stress and some eat less (e.g. Stone and Brownell, 1994). This may be due to individual differences (e.g. gender, obesity, restrained eating; see Greeno and Wing, 1994) and/or to the type of stressor (e.g. interpersonal, ego threatening or physically threatening stressors; O'Connor et al., 2008). In the present research, some participants reported comfort eating in response to stress, which supports much previous research (e.g. Lallukka et al., 2004; O'Connor et al., 2008; Steptoe et al., 1998), although this was relatively infrequent. However, very few employees reported being less inclined to eat after a 'bad' day. Thus, the findings of the present study generally support 'comfort eating' as a response to work stress and reduced eating as a result of being busy at work. Being busy at work is likely to be a characteristic of a high-demand job. However, *work stress* and *being busy at work* were viewed as separate themes because being busy at work was not necessarily distressing, and some busy and pressurised days were reported to be 'good' days. However, the findings of the present study may suggest that an optimal level of busyness may be important. Overall, work had a negative impact on eating in the present research, although differing reactions were reported within and across people.

Flexible working policy and convenient facilities were considered by employees to

encourage exercise (supporting previous research, e.g. Tavares and Plotnikoff, 2008), and although reduced membership at a local gym was offered, the lack of on-site, affordable exercise facilities was criticised. Being busy at work was perceived to prevent exercise (supporting previous research, e.g. Fletcher et al., 2008; Tavares and Plotnikoff, 2008). However, many employees acknowledged that this was an excuse. Nevertheless, even employees with good intentions may be precluded from implementing them by unexpected time demands at work. In contrast, some employees exercised in response to stress. This supports Ingledew et al. (1996) who conceptualise exercise as an adaptive way of coping with stress. However, much previous research suggests that work stress is linked to reduced exercise (e.g. Hellerstedt and Jeffrey, 1997; Kouvonen et al., 2005c). Yet in the present study, very few people reported being less inclined to exercise after a 'bad' day. Thus, exercising less appeared to be related to being busy at work rather than a stress response. However, many employees acknowledged that they believed it would make them feel better if they exercised. Overall, work had both positive and negative impacts on exercise in the present research and differing reactions also occurred. Thus, individual and situational differences may be involved in relationships between work stress and exercise as well as eating.

Theoretical implications

The findings of the present study suggest that stress and coping theory and role conflict theory explain differential aspects of health behaviour. Within the work stress theme, health behaviours appear to be used as emotion-focused strategies to cope with stress leading to *increased* eating, smoking, drinking and exercise. In complete contrast, within the busy-at-work theme, the experience of time-based role conflict (Greenhaus and Beutell, 1985) leads to *reduced* eating, smoking, drinking and exercise. Thus, these different theoretical approaches impact quite differently on health behaviours.

These findings also illustrate that these negative aspects of work (i.e. work stress and role conflict) have a positive influence on some health behaviours. For example, work stress is linked to increased exercise, and role conflict is linked to reduced smoking. Thus, one of the key findings of the present study is that some aspects of work may facilitate health

behaviours, and future research could examine more 'positive' theoretical approaches such as work–life facilitation (Grzywacz et al., 2007b) rather than conflict. However, the findings also suggest that even positive aspects of work may not necessarily have a positive influence. For example, having a 'good day' at work may be linked to increased drinking. Furthermore, studies that use these theoretical approaches may still only capture half the picture, as the context of the physical and workplace cultural environment is also crucial. For example, the findings of the present study suggest that Ames and Janes' (1992) workplace cultural approach to drinking may also be applied to smoking and eating.

Practical implications

The findings of the present study suggest that multilevel interventions are necessary. At the individual level, personal techniques that may help employees manage their stress and work– life balance may be helpful. For example, since many employees believe that exercise would make them feel better, this could be part of advocated stress management training. At the job level, careful consideration of the design of work is required, such as establishing work schedules that are sufficiently flexible to allow employees time to exercise, and provide sufficient stimulation, since both working long hours and being too busy, as well as being bored may be detrimental to healthy behaviour. At the level of workplace culture, it will be important to cultivate supportive workplace cultural norms in relation to healthy behaviours. Furthermore, any change or intervention should involve a participative approach to assess what is perceived to be feasible, acceptable and successful by all workplace stakeholders. At the level of the organisation, providing a work environment that facilitates healthy behaviour is vital. Findings suggest employers should provide convenient facilities for physical activity and easy access to healthy and tempting convenience foods both in and out of normal working hours. Appropriate organisational policies need to be in place to support this alongside those relating to occupational stress, work–life balance and flexible work initiatives.

Limitations

There are a number of limitations to the present study. First, the sample was relatively small and comprised volunteers drawn from a single company. Thus, the findings are not generalisable and self-selection bias may be an issue. For example, employees experiencing the greatest levels of work stress may not have had time to participate or alternatively they may have been especially likely to participate. Similarly, only employees with an interest in health behaviour may have volunteered to participate. However, the sample included employees of a multinational company from a range of job roles and levels of seniority, including different ages and men and women in order to gain perspectives from a range of employees. Furthermore, the object of qualitative research is not to draw conclusions that may be generalisable across all employees. Second, since the purpose of the interview was transparent, that is, to investigate work and health behaviours, this may have created expectations about how participants should respond, possibly leading them to search for links between work and health behaviours or to respond in a socially desirable manner (c.f. Cox et al., 2006). Finally, while interviews are an appropriate means of accessing employees' experiences of work and health behaviours, these subjective perceptions do not necessarily uncover what actually impacts their health behaviours. However, it is these perceptions that are likely to be a significant barrier to healthy behaviour. Furthermore, qualitative research focuses on the individual's experience, meaning and reality and as such, objective measurement is not the goal.

Conclusion

While the aim of the present study, and much previous research, was to examine the influence of work, work is only one, albeit important, context influencing health behaviour. For example, employees acknowledged that individual issues such as being tempted to eat and not wanting to exercise are problematic and that work may be used as an 'excuse'. In fact, many of the themes identified here (e.g. being busy and stress) may also apply outside of work, and thus, the impact of the environment outside of work needs to be considered in future research, alongside the interface between work and life outside of work, including work–life facilitation as well as conflict. Ultimately, a better understanding of health

behaviours in the con- text of working life may aid the development of interventions. While individual employees clearly have a responsibility for their own health behaviour, comprehensive workplace interventions are needed that target both individual responses and organisational factors and have a more central role in organisational policies and planning.

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