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The effects of workplace stress on eating behaviour.



Introduction - Obesity in the Workplace

Stress is a fact of everyday modern life, particularly in the workplace. The interaction between stress and eating is complex, with subgroups of the general population either increasing or decreasing their food intake during or after stress, dependant on eating behaviour profile (e.g. food patterns and choice) and personality phenotype (e.g. behavioral, temperamental, emotional and mental characteristics). Most people however, increase their food intake as a result of stress. Accordingly, chronic stress may contribute to the obesity epidemic. The University of Aberdeen Rowett Institute of Nutrition and Health have been successful in obtaining EU money** which will provide 3.5 years funding to assess obesity, stress, eating behaviour and physical activity in the workplace and brings together expertise in health psychology, public health and human nutrition. We are particularly interested in the impact of stress and shift pattern on meal patterns (e.g. snacking) and eating behaviour in the workplace. In addition, a sub-group of the subjects studied in the workplace will attend our Human Nutrition Unit to examine the effect of a more acute and controlled stressor on diet selection and portion size chosen from a buffet meal. Finally, we will conduct an intervention study using a web-based tool to examine the impact of stress management on body weight and healthy lifestyle behaviour(s).

These studies will increase our understanding of stress-induced eating and its potential impact on body weight regulation and will help inform policy initiatives to reduce stress, particularly in the workplace, and shape the food environment to reduce the incidence of disadvantageous eating patterns. In particular, this objective will help elucidate how typical stress situations in 'modern life' trigger disadvantageous eating patterns and preference for certain foods.

Key Points

- This research is investigating workplace stress and eating patterns.
- We are interested in factors that influence appetite. We do not always initiate eating just when we are hungry, palatable food and snacks can contribute to overconsumption of calories. We are trying to understand the underlying physiology and psychology influencing appetite and linking this to eating behaviour.

What research will we carry out on this topic ?

- How personality profile impacts on eating patterns and stress – there are likely to be 'stress-susceptible' and 'stress resistant' phenotypes who do and do not alter food intake in times of stress.

- We will assess the impact of workplace shift patterns on daily stress and eating behaviour in a large group of men and women.
- We will assess the impact of a health-promoting work environment on daily stress and eating behaviour in a large group of men and women.
- We will also undertake to inform policy makers and policy implementers on stress in the workplace and the food environment.

What do we already know on this topic ?

- Shift patterns - The workplace could also be the origin of various health inequalities since working conditions have been found to be associated with employees' health behaviour. One in five workers in Europe are employed on shift work involving night work and over one in 20 extended work hours. It is well documented that shift work can disturb the physiological circadian rhythm in most individuals and this may impact on energy balance and body weight.
- Employer attitudes and work environment provision - Since many adults spend a substantial amount of their time at work and consume at least one meal at work each day, a healthy workplace environment is important, particularly as jobs become more sedentary. An increased prevalence of obesity among employees can have indirect economic consequences for employers, in terms of productivity through illness and absenteeism of employees. The main outcome for this study will be to look at the relationship between stress and eating patterns and employer healthy lifestyle provision impacts on behaviours.
- Workplace stress and eating style - Previous work has shown a relationship between reported stress/daily hassles and increased consumption of high fat and high sugar foods between meals (snacking). Snacking on energy dense foods is a risk factor for obesity. The impact of stress on eating behaviour varies both with the (i) types of stress experienced and, (ii) personality and eating phenotype.

Policy Implications

What is the policy relevance of this research ?

- This science directly targets the role of diet composition in our 'obeseogenic environment'.
- Public health nutrition advice for policy makers and advisors needs to be evidence-based (from research), which this work provides. We can make recommendations on how the workplace can be modified to encourage healthier eating behaviours that do not promote weight gain and at the same time improve workload stress profile.

** NeuroFAST- Neurobiology of Food Intake, Addiction and Stress - is the name of the €6M EU funded research project which brings together internationally recognised experts from areas such as psychology, genetics, epidemiology, nutrition and endocrinology based in seven different countries*.

The University of Aberdeen Rowett Institute of Nutrition and Health has been awarded almost €1M to deliver three elements of NeuroFAST.

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