



UKCRC Public Health Research Centres of Excellence

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Abstracts for centres' plenary papers

Facilitating a national policy trial: social norms and alcohol misuse in Welsh universities

Dr. Simon Murphy (DECIPHer)

The need for intervention to reduce excessive alcohol consumption amongst UK university students has received increasing attention in recent years. The social norms approach, which has met with some success in the USA, is based on the assumption that student's perceptions of peer group norms influence behaviour, but that perceptions of social norms are often incorrect, with students typically overestimating normative alcohol consumption levels among their peers. Social norms interventions aim to correct these inaccurate perceptions, and in turn, to change behaviours.

However, UK intervention studies are scarce and in 2010 a Welsh Government/Drinkaware social norms pilot to address alcohol misuse in Welsh Universities was announced by the Cabinet Office Behavioural Insights Team. In 2011, an exploratory trial, funded by Alcohol Research UK, examined intervention acceptability, hypothesised processes of change and implementation, as well as the feasibility of a potential large scale effectiveness trial within student halls of residence in 4 universities.

This presentation will reflect on challenges in facilitating a national policy trial with policy and practice stakeholders. This includes the development of an appropriate social norms interventions within a complex university setting, negotiating a rigorous pragmatic research design, challenges in measuring student alcohol consumption, establishing actual and perceived norms, achieving sufficient response rates to evaluate intervention effects and influencing future policy and practice.

Developing 'Health First': The UK's independent alcohol strategy

Professor Linda Bauld (UKCTCS)

The harm caused by alcohol is a problem for the whole of UK society, with millions of individuals suffering the direct and indirect effects of drinking each year. These include rising alcohol-related deaths (a doubling in the number of these deaths between 1982 and 2011), clear links between alcohol and crime (with 44% of all violent incidents committed by people who have been drinking) and significant costs to public services and communities. To date, no UK government has adopted a comprehensive, evidence-based strategy to tackle alcohol harms, in contrast to other areas of public health such as tobacco. To begin to fill this gap, the UK Centre for Tobacco Control Studies worked with leading charities and the Alcohol Health Alliance to bring together a group of researchers, advocates and clinicians who met over a two year period to develop an independent plan for action. This report, *Health First*, was published in March 2013 and sets out a longer term vision and a series of recommendations to change the UK's relationship with alcohol. This presentation will outline how the strategy was developed and how it provides a useful example of as a civil society response to a public health problem. It will also outline how the work is now providing a platform for new research and policy and practice developments both in the UK and further afield.

Chronic work stress and risk of physical inactivity

Dr. Anne Kouvonen (CoEPhNI)

Aim

The aim of this study was to examine whether exposure to work stress predicts changes in physical activity and increases the risk of insufficient physical activity.

Methods

Prospective data were derived from the Finnish Public Sector Study. Repeated exposure to low job control, high job demands, low effort, low rewards, and compositions of them (job strain and effort-reward imbalance) were assessed at Time 1 (2000-02) and Time 2 (2004). Insufficient physical activity (<14 MET hours per week) was measured at Time 1 and Time 3 (2008). Fixed-effects (within-subject) models (N=6665) and logistic regression analysis (N=13,976) were applied.

Results

In the fixed-effect analysis an increase in work stress was associated with an increase in physical inactivity within an individual. In between-subjects analysis, employees with repeated exposure to low job control and low rewards were more likely to be insufficiently active at follow-up than those with no reports of these stressors; fully adjusted odds ratios ranged from 1.11 (95%CI=1.00-1.24) to 1.21 (95%CI=1.05-1.39).

Conclusions

An increase in workplace stressors is associated with an increase in insufficient physical activity within an individual. In addition, there is a weak-dose-response association between repeated exposure to workplace stressors and the likelihood of insufficient physical activity.

**Knowledge and perceptions of pregnant women with regard to
environmental hazards and their effects on health outcomes in pregnancy
and early childhood: a qualitative study
Dr. Ruth Jepson (SCPHRP)**

Background

Environmental health is an area of increasing global concern partly due to an increase in established links between a number of diseases and environment exposures. Children and the developing foetus are known to be particularly vulnerable to the impact of environmental pollution and as such, the European Environment Agency and the WHO have highlighted this as a high priority which warrants further research. For example, a range of chemicals and physical hazards encountered in workplaces, wider environments and food and drink may be associated with cancers, low birth weights in children, neurological development and birth defects.

Aims

- to assess pregnant women's current knowledge base on reproductive environmental health hazards and risks
- to examine how their understanding and perceptions of such potential environmental hazards can impact on pregnant women and their unborn child in future years

Methods

We adopted a holistic approach to the research, combining both health and social science perspectives, in order to capture the range of factors affecting views on and experiences. The approach was located within 'a lay epidemiology' frame that included both specific hazards and the wider 'world view' of risks and hazards. Three areas of Forth Valley region (Scotland) were chosen to reflect the diverse environments within the region: 1) an industrial area located next to a large oil refinery and other chemicals plants 2) a largely urban area of Stirling city and its immediate environs, 3) a rural and agricultural area. We undertook a qualitative study which used both focus groups and individual interview data collection methods. Three focus groups (with a total of 15 women) and 7 individual interviews were conducted (22 women in total). Data were coded using a system based on a modified version of hazard world mapping, as well as allowing new themes to emerge.

Results

Women had varied and often complex understandings of the terms 'environment' and 'hazards/risks' from the home, through local community and local area to the wider planet. This understanding did not always map neatly across class, education or location. In terms of health risks to their unborn child, the majority were most concerned about risks that they felt were within their 'control' which included what they ate and drank (but not related to pesticides) and physical threats, or products bought and used or consumed in the house. Another major perceived risk was the local environment. This included social stressors and possible physical threats such as anti-social behaviour (verbal and threat of physical abuse, unsafe neighbourhoods, litter, glass etc) and road traffic. Many also reported significant work hazards, especially those working in occupations such as caring, hairdressing and shops. Wider environmental hazards such as air, soil or water pollution were less commonly mentioned or perceived as risks.

Conclusions

The project examined aspects of risk construction, risk assessment and risk management. Current political agendas emphasise problems of risk aversion but the study found that the principal problems often related to a lack of economic power to control perceived hazards and limited access to accurate information about many reproductive hazards. The implications of these findings for public health will be discussed.

The impact of school food standards on primary school children's lunchtime and total dietary intake: evaluation of government policy in England

Professor Ashley Adamson (Fuse)

Background

From 1980 to 2000 several factors affected the nutritional quality of school meals: the 1980 Education Act removed all prior nutritional standards and compulsive competitive tendering was introduced. In 2005, following Jamie Oliver's media broadcast 'Jamie's School Dinners', school food gained attention. In 2006, after 20 years with no regulation to school food, new school food and nutrient-based standards were re-introduced in England. The standards limit the number of times certain foods can be served and set minimum and maximum levels for 14 nutrients. Primary schools had to comply by September 2008. The primary aim of this study was to evaluate the impact of these standards on the mean daily nutrient intake of children's total diet aged 4-7y.

Methods

A cross-sectional study was undertaken in primary schools (n=13) in North East England in 2003-4 (pre-implementation) and 2008-9 (post-implementation). Dietary, anthropometric and socio-economic data were collected from children (n=1017) aged 4-7y attending the same schools using identical quantitative methods. A four-day food record was completed by parents at home and trained observers at school. Food consumed was separated into 'school lunch', 'packed lunch' and 'food consumed at home'. Nutritional content was determined and analysed.

Results

There were significant improvements in school meals compared with changes in packed lunches. Furthermore, there was a significant interaction between lunch type (school or packed) and year (pre and post-implementation of the standards) in their impact on children's total dietary intake. Children who consumed a packed lunch in 2003-4 had lower % energy from fat and saturated fat compared with children consuming a school lunch; by 2008-9, this had reversed ($p<0.001$). Children consuming school lunch also had a higher intake of iron in 2008-9 ($p=0.005$).

Conclusions

These findings show the impact of lunch type pre and post-implementation of the standards, and the potential of school lunch to impact positively on children's total diet.

Playing away from home - are residential neighbourhoods actually used as venues for physical activity?

Professor Andrew Jones (CEDAR)

Background

The choice of geographical unit of analysis in studies of the built environment and physical activity has typically been restricted to the home neighbourhood where only a small proportion of physical activity may actually be undertaken. This study aimed to characterise the locations and land-uses where physical activity actually takes place.

Methods

A cross-sectional, population-based study of 195 people in the North West region of England, aged 18 to 91 years, clustered in 40 localities (small geographical areas of ~125 households). Physical activity was characterized by a combination of computer-aided personal interview, accelerometer data and Global Positioning Systems (GPS). The location of periods of moderate to vigorous intensity physical activity (MVPA) was linked to land-use, neighbourhood around the home, and distance from home.

Results

60% of MVPA took place outside of the proximal home neighbourhood and in a wide range of locations. Distances from home where median levels of MVPA were undertaken varied by home neighbourhood type, area deprivation, gender, age group and car access ($p < 0.001$), as did the land uses where physical activity was located ($p < 0.01$).

Conclusions

Objectively measured physical activity appears to vary appreciably by setting, although for many settings a large proportion is undertaken outside of the home neighbourhood, suggesting the characterisation of neighbourhoods close to home will fail to capture the totality of environmental influences on physical activity.