RISK PERCEPTION AND CANCER PREVENTION

Funded Projects from the Innovation Workshop
9-11 February 2015

Cancer Research UK/Bupa Foundation Fund Cancer Prevention Initiative
Cancer risk perceptions refer to people’s beliefs about their vulnerability to the disease and their judgements about the probability of benefit from intervention. Risk perceptions of cancer are therefore an essential component of health behaviour change for cancer prevention.

This workshop brought together a diverse range of experts to develop new multidisciplinary and revolutionary research ideas to understand, identify and engage with people’s risk perceptions to change health behaviours and prevent cancer.

The Subject Guides act as real-time ‘peer reviewers’ but with a much more creative role. At the start of the event, their job is to encourage new ideas by asking questions, highlighting ideas that seem exciting, and making connections - between participants and to the wider body of knowledge. The Subject Guide’s role changes towards the end of the event, when they have to adopt a more critical perspective and assist with the funding decisions.

The Director acts as the leader of the event and guides the process from a scientific content perspective. The Director will work closely with the Subject Guides, guiding them as they interact with the participants and plays a key role in the funding decisions.

AIMS
THE SANDPIT PROCESS CAN BE BROKEN DOWN INTO SEVERAL STAGES:

- Defining the scope of the challenge
- Sharing understandings of the challenge and expertise brought to the sandpit by participants
- Evolving common languages and terminologies amongst people from a diverse range of backgrounds and disciplines.
- Breaking down preconceptions of researchers and stakeholders.
- Taking part in break-out sessions focused on challenges, using creative thinking techniques.
- Capturing outputs in the form of highly innovative feasibility study proposals.
- A funding decision on those proposals at the sandpit, using “real time” peer-review.
Professors Frank Kee

Director UKCRC Centre of Excellence for Public Health Research (NI), as well as Deputy Director for the Centre for Public Health in Queens University.

Dr Lucy Hackshaw-McGeagh

Research Associate at Bristol University and was a participant at the first Cancer Prevention Innovation Workshop.

Dr Gozde Ozakinci

Lecturer in Health Psychology at the University of St Andrews and was a participant at the first Cancer Prevention Innovation Workshop.

Dr Michael O’Rorke

CRUK Population Research Postdoctoral Fellow at Queen’s University Belfast Centre for Public Health.

Mr David Manton

Patient Representative and CRUK Involvement Coach.

Mr David Manton gave a talk about how to include patients and the public in research, highlighting the importance of working collaboratively with stakeholders and including fresh perspectives for innovation in research.

Dr Yasmina Okan, Lecturer in Behavioural Decision Making at the University of Leeds Business School, gave a presentation about how different methods of risk communication affect perceived risk. This included examples of some of the cutting-edge research and challenges in the field of risk communication to stimulate discussions and inspire new ideas.

Professor Linda Bauld, Director of the Institute for Social Marketing at the University of Stirling, and also Deputy Director of the UKCRC Centre for Tobacco and Alcohol Studies (UKCTAS). Linda is the Cancer Prevention Champion for the Cancer Prevention Initiative, and a member of the workshop Funding Panel.
On the final day of the workshop, each group presented their research idea.

The funding panel, comprising Frank, Linda and the subject guides, awarded the best proposals up to £20,000 each, to support the subsequent pilot and feasibility studies.

5 projects were funded commencing April 2015 for 12 months.
THE BANK OF GOOD TIMES

Physical inactivity (PA) increases an individual’s risk of developing some cancers, yet around a third of men and one half of women are not meeting UK government recommendations for PA. Existing PA-focused mobile phone applications (apps) largely target individuals who have an analytical processing style, and fail to consider those with a more emotional processing style.

We will develop a novel mobile phone app, in collaboration with users, that encourages inactive adults who are preparing to exercise to notice the emotional benefit they gain from PA. The app will reinforce the link between PA and positive mood, to increase the frequency of and habit strength for PA.

Our research team have a range of expertise in qualitative and quantitative methods, psychological theory, intervention development, marketing and project management.

Following the successful development of the app, we shall apply for funding to conduct a feasibility trial to inform the decision to conduct a randomised trial of the efficacy of the app.
DEVELOPING PERSONALISED CANCER RISK INFORMATION TO PROMOTE BEHAVIOUR CHANGE

It is estimated that nearly 600,000 cancer cases in the UK could have been avoided in the past 5 years if people had healthier lifestyles. Being able to estimate, communicate and monitor individual risk and demonstrate the impact of tailored lifestyle change on future risk of cancer may motivate behaviour change for cancer prevention.

We aim to develop ways of presenting an individual’s modifiable cancer risk and explore the views on how this should be implemented of the general public and key stakeholders, including GPs, primary care healthcare teams, GP commissioners and public health officials.

We will use data from UK Biobank to develop risk calculators that can estimate the reduction in an individual’s risk of a series of common cancers that could be achieved through lifestyle changes. In close collaboration with members of the public we will design different ways of presenting the information from the risk calculators.

This research will provide data on the best use of personalised modifiable cancer risk information to help motivate behavioural changes, and will inform development of a larger trial.

WE AIM TO DEVELOP WAYS OF PRESENTING AN INDIVIDUAL’S MODIFIABLE CANCER RISK AND EXPLORE THE VIEWS ON HOW THIS SHOULD BE IMPLEMENTED

- Professor Jackie Campbell
  University of Northampton

- Dr Juliet Usher-Smith
  University of Cambridge

- Mr Matthew Walmsley
  Public Health England

- Dr Joanna Warcaba
  Macmillan GP

- Professor Ken Muir
  University of Manchester
#INNERSELFIE: MAKING FUTURE RISK FEEL REAL

Physical activity (PA) reduces risk of a number of cancers, yet activity levels in young people are low. Promotion of physical activity (PA) from early in life is therefore a key outcome in cancer prevention. Novel technologies such as virtual reality (VR) may have the potential to change underlying cancer risk appraisals and facilitate PA behaviour change.

We aim to explore the feasibility and acceptability of using an intervention incorporating VR to increase young people's PA. The VR system will target unhelpful beliefs underlying risk appraisal by allowing young people to experience what an inactive lifestyle may do to their bodies (i.e. making their future cancer risk 'feel real'). We will also include additional intervention components to facilitate and maintain behaviour change.

This study will involve essential preliminary steps for the future larger study including identifying the appropriate collaborators and key stakeholders, assembling a youth panel and expert technology and intervention steering groups. Interviews will also be conducted with around 20 young people aged 13-17 years to explore beliefs underlying cancer risk appraisals.

We will apply for future funding, based on our findings, for the design, build and intervention development phase of the research.
LIMITED DATA ARE AVAILABLE DOCUMENTING THE ERRONEOUS BELIEFS ABOUT CANCER RISK FACTORS IN THE UK, SUCH AS ELECTRICITY PYLONS, WATER POLLUTANTS, STRESS AND FOOD ADDITIVES. HOWEVER, NO VALID TOOL EXISTS THAT CAN RELIABLY MONITOR THE PREVALENCE OF THESE BELIEFS IN THE GENERAL POPULATION.

WE AIM TO: 1) DEVELOP A VALID AND RELIABLE TOOL OF INCORRECT BELIEFS ABOUT CANCER; 2) PROVIDE NATIONALLY REPRESENTATIVE PREVALENCE ESTIMATES FOR THESE BELIEFS AND HIGHLIGHT EXISTING INEQUALITIES; AND 3) DOCUMENT ASSOCIATIONS BETWEEN INCORRECT CAUSAL BELIEFS AND CANCER PREVENTIVE BEHAVIOURS.

WE WILL UNDERTAKE SOCIAL MEDIA ANALYSIS AND SEMI-STRUCTURED INTERVIEWS, CONDUCT ONLINE SURVEYS AND CONSULT WITH EXPERTS AND MEMBERS OF THE PUBLIC. DEVELOPING THIS TECHNIQUE WILL PROVIDE EVIDENCE THAT SOCIAL MEDIA CAN BE USED FOR QUESTIONNAIRE DEVELOPMENT IN THE FUTURE.

THE IBAC TOOL WILL PROVIDE A USEFUL OUTCOME MEASURE FOR OTHER RESEARCHERS AND POLICY MAKERS WHO ARE Undertaking INTERVENTIONS AND AWARENESS RAISING INITIATIVES.
THE UUPP PROJECT: ASSESSING POLITICIAN’S UNDERSTANDING, CANCER RISK PERCEPTIONS AND POLICY POSITIONS ON ALCOHOL

Structural level interventions, that require political support, are needed to support behaviour change and reduce the incidence of lifestyle-related cancers across the population. In the alcohol field, a wide range of organisations, including both industry and advocacy organisations, seek to influence politicians’ understanding of alcohol problems, risks (including cancer) and support for particular policy positions.

Analysing and monitoring the public statements of key politicians is an important part of advocacy work, but there is currently no reliable or consensus-based analysis method.

We aim to assess the feasibility and value of a bespoke ‘positional analysis’ tool for analysing and monitoring politicians’ understanding of alcohol-related cancer-risks, alcohol problems, and policy positions relating to alcohol.

We will consult with advocacy stakeholders, source publicly available outputs from chosen politicians, and review the use of positional analysis frameworks in other fields. We will develop a draft tool for analysing UUPP outputs and review the feasibility, acceptability and utility of draft tool with stakeholders.

From the findings, we will explore how this methodology may be used in research and practice to better understand how to effect policy change for alcohol-related and other lifestyle-related cancer prevention.
For more information about the Bupa Foundation Fund and Cancer Prevention Initiative, contact **Dr Lucy Davies** or visit the **Cancer Prevention Initiative webpage**.

To find out about our next Innovation Workshop, ‘Early Years and Cancer Prevention’ visit the **Cancer Prevention Initiative webpage**.

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