To improve delivery of physical activity very brief advice by cancer care nurses – a case study on the use of the Behaviour Change Wheel.

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Introduction

Being physically active has been shown to have multiple benefits for people living with cancer.\(^1\)

Despite this only 23% are active to the chief medical officer guidelines\(^1\) and 37% are completely inactive.\(^1\)

Although the evidence is strong to support the benefits of physical activity for cancer patients, awareness amongst healthcare professionals is not universal and some actively discourage physical activity thinking it is a “treadmill”.\(^2\)

Nurses are uniquely situated to offer physical activity advice to cancer patients. It is suggested that patients prefer lifestyle interventions to be delivered by a nurse rather than a doctor.\(^3\)

NICE recommends that health, wellbeing and social care staff should be encouraged to use a very brief intervention to motivate people to make a change.\(^4\)

This case study outlines the development of an intervention to improve the frequency of delivery of very brief advice on physical activity by nurses to cancer patients using the Behaviour Change Wheel (BCW) to guide intervention development.\(^5\)

Results

Step 1: Defining the problem

31% of people living with cancer are inactive. Only 23% are active to recommended levels.

Awareness of the benefits of physical activity amongst healthcare professionals is not universal.

Delivery of advice on physical activity could be improved.

Step 2: Select target behaviour

This intervention seeks to change the frequency of delivery of very brief advice on physical activity to cancer patients by nurses. This is an interdependent behaviour to the behaviour of improving the physical activity levels of cancer patients.

Step 3: Specify behaviour

What? Nurses.

What? Delivery of very brief advice signposting for further advice and support.

Where, when, how often and with whom? During all cancer patient appointments.

Step 3: What needs to change?

A behavioural diagnosis was made by synthesising the work of Bourne et al.\(^5\) NICE evidence statements\(^5\) and field work conducted by Macmillan.\(^6\)

Capability – psychological

Knowledge of what to say, the skills on how to say it and the memory and attention to remember to deliver very brief advice.

Opportunity – physical

The resources to signpost more support. Time is a limited resource so a very brief intervention is required.

Opportunity – social

Support within the workplace.

Motivation – reflective

The belief and understanding that this is part of their role and the right thing to do.

The confidence to deliver the advice.

Steps 5 to 8

The intervention functions of education, persuasion, training, environmental restructuring, modelling and enablement were selected.

The policy categories of communications/marketing, and service provision incorporating guidelines were selected.

10 behaviour change techniques from the behaviour change technique taxonomy version 1 (BCTTv1) met the APEASE criteria and were selected.

Communications/marketing

A digital mass media campaign can drive awareness to the training intervention once the feasibility of the intervention is confirmed. The evidence suggests that such campaigns are good at raising awareness of interventions.\(^7\)

Service provision incorporating guidelines

Both face-to-face and online training met the APEASE criteria. These modes of delivery are likely to be familiar to nurses.

Intervenor communication is effective during the adoption of interventions.\(^8\)

Therefore the online training will be delivered using online seminar technology allowing for real-time interpersonal communications in an online learning environment. This method has been shown to be effective.\(^9\)

An easy to remember framework improves memory of interventions. Assess, advise and refer has been developed as a framework to deliver physical activity advice.\(^9\)

Similar versions exist such as the 5A’s of assess, advise, agree, assist and arrange.\(^10\) These have been developed outside of the UK.

The National Centre for Smoking Cessation and Training (registered in England and Wales) has adopted ask, advise and act to deliver very brief advice on smoking cessation. As of 1st August 2014, 111,763 have completed their online training.\(^10\)

This ask, advise and act framework has been adopted for delivery of very brief advice on physical activity to cancer patients as it is appropriate and it may be familiar to nurses already.

Final intervention content

<table>
<thead>
<tr>
<th>Intervention function</th>
<th>BCTTv1 code</th>
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<tbody>
<tr>
<td>Education</td>
<td>9.1</td>
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<tr>
<td>Incidence and prevalence of cancer within the UK</td>
<td>9.1</td>
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<tr>
<td>Evidence for physical activity and cancer</td>
<td>9.1, 5.1, 5.6</td>
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<tr>
<td>Video: Professor of oncology talking about the importance of physical activity</td>
<td>9.1, 5.1, 5.6, Modelling</td>
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<td>CMO guidelines for physical activity</td>
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<td>Guidance on the levels of physical activity for cancer patients</td>
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<td>Video: Patient story – how physical activity has helped</td>
<td>9.1, 5.6, 5.2</td>
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<tr>
<td>Observed levels of physical activity amongst cancer patients</td>
<td>9.1</td>
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<td>Research on the impact of sedentary behaviour</td>
<td>9.1, 5.1, 5.6</td>
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<tr>
<td>Details of the teachable moment that may exist following a cancer diagnosis</td>
<td>9.1, 5.1, 5.2</td>
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<tr>
<td>Research on the positive effect of motivated advice on physical activity in patients with severe medical problems</td>
<td>9.1, 5.2</td>
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<tr>
<td>Training</td>
<td>9.1, 4.1, 7.1</td>
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<td>Modelling</td>
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<td>Training, Training</td>
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<tr>
<td>Education, Training</td>
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<td>Restructuring</td>
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<td>Restructuring</td>
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<td>Enablement</td>
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<td>Summary and close</td>
<td>Education, Enablement</td>
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<td>Short quiz to test knowledge</td>
<td>Education, Enablement</td>
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<th>Immediate feedback given</th>
<th>Education, Enablement</th>
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Conclusion

Training on the delivery of very brief advice for physical activity currently does not exist for healthcare professionals within the UK.

The behaviour change wheel has enabled a systematic and theory-driven approach to the development of an intervention designed to enhance delivery of very brief advice on physical activity by nurses interacting with cancer patients.

NICE call for research in this area.\(^11\)

A mixed methods feasibility study is suggested to examine the acceptability, practicability, implementation and efficacy (limited) of this training intervention before a larger-scale pilot randomised control trial.

Further information

Contact Justin Webb at jwebb@macmillan.org.uk

References

7. The behaviour change wheel has enabled a systematic and theory-driven approach to the development of an intervention designed to enhance delivery of very brief advice on physical activity by nurses interacting with cancer patients.
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