Clinical education

Workplace wellness using online learning tools in a healthcare setting

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ABSTRACT

The aim was to develop and evaluate an online learning tool for use with UK healthcare employees, healthcare educators and healthcare students, to increase knowledge of workplace wellness as an important public health issue. A 'Workplace Wellness' e-learning tool was developed and peer-reviewed by 14 topic experts. This focused on six key areas relating to workplace wellness: work-related stress, musculoskeletal disorders, diet and nutrition, physical activity, smoking and alcohol consumption. Each key area provided current evidence-based information on causes and consequences, access to UK government reports and national statistics, and guidance on actions that could be taken to improve health within a workplace setting. 188 users (93.1% female, age 18−60) completed online knowledge questionnaires before (n = 188) and after (n = 88) exposure to the online learning tool. Baseline knowledge of workplace wellness was poor (n = 188; mean accuracy 47.6%, s.d. 11.94). Knowledge significantly improved from baseline to post-intervention (mean accuracy = 77.5%, s.d. 13.71) ($t(75) = -14.801$, $p < 0.0005$) with knowledge increases evident for all included topics areas. Usability evaluation showed that participants perceived the tool to be useful (96.4%), engaging (73.8%) and would recommend it to others (86.9%). Healthcare professionals, healthcare educators and pre-registered healthcare students held positive attitudes towards online learning, indicating scope for development of further online packages relating to other important health parameters.

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1. Introduction and background

Poor public health and wellbeing is globally accepted as a significant burden to healthcare services, due to the rising incidence of morbidity and mortality related to preventable chronic conditions (World Health Organisation (WHO), 2014; Department of Health (DH), 2014; Centre for Disease Control and Prevention, 2012). As such, there is an international call for population behaviour change to reduce smoking, reduce alcohol consumption, improve diet and increase physical activity (Public Health England, 2014; WHO, 2014; Office for National Statistics (ONS), 2013; DH, 2012c, 2011a, 2010; Mulgan, 2010).

Creating a 'culture of health' has been advocated to promote health behaviour change and improve the health of individuals (Shareck et al., 2013; Black and Frost, 2011; Musich et al., 2009; Black, 2008). This 'culture of health' can be achieved through settings-based health promotion (WHO, 2011). Workplaces are an integral setting for improving public health (Black, 2008; Black and Frost, 2011), and workplace health promotion interventions have been shown to reduce the burden of illness to both employees and the employer (Musich et al., 2009; Black, 2008; Black and Frost, 2011; Department of Work and Pensions (2011), 2013).

The UK National Health Service (NHS) is one of the world's largest publicly funded health services, estimated to be the fifth largest employer worldwide, with approximately 1.7 million employees working across England, Wales, Scotland and Northern Ireland. For healthcare employees and healthcare students (Blake and Harrison, 2013; Mooney et al., 2011), advocating workplace wellness is particularly salient from two perspectives. Firstly, many employees working within the UK NHS have been shown to have poor health profiles (Blake et al., 2011) and the NHS workforce holds higher sickness absence rates than other public sector and private sector organisations (Chartered Institute of Personnel and Development (CIPD), 2014; ONS, 2014; Boorman, 2009). The health and wellbeing of healthcare employees is vital for improving organisational engagement (Point of Care Foundation, 2014; West et al., 2011), confidence to promote healthy lifestyle behaviours to patients (Blake and Harrison, 2013), patient experience and patient

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outcomes (DH, 2011c; West et al., 2011; Boorman, 2009). As such, healthcare employees are important recipients of workplace health promotion. Indeed, the Five Year Forward Plan proposed by NHS England advocates that a radical upgrade in prevention and public health is required for the sustainability of the NHS, as well as economic prosperity of the country. This plan supports new workplace incentives to promote employee health and wellbeing. Secondly, since workplace wellness is an important element of public health promotion within the UK, NHS employees (and healthcare students as the 'next generation' of NHS employees) should have a clear understanding of this subject area, in order that they are empowered to promote health and wellbeing amongst their peers, students, patients and the general public (Blake and Harrison, 2013). Nevertheless, knowledge about healthy lifestyle behaviours appears to be inadequate in NHS employees (Mo et al., 2011).

Educational intervention is therefore appropriate in order to increase understanding about important health behaviours (manifestations, causes and consequences), and how employees and organisations can make efforts to improve and support healthy lifestyle choices in the NHS workplace setting.

Technology has been nationally recognised within the UK for its potential to improve health by transforming the quality of health and care services, whilst reducing costs (DH, 2012a, 2012b; Government Digital Strategy, 2013; Care Act, 2014; NHS, 2014; National Information Board (NIB), 2014). The NHS Five Year Plan sets out a national drive to embed and enhance information technology within health and care services. Making it vital for all members of the UK healthcare workforce to have the knowledge and skills necessary to fulfill their roles in the use of information, data and technology (NIB, 2014).

Moreover, technology has a key part in the delivery of healthcare education worldwide, with the use of e-learning and blended learning approaches found to enhance knowledge, skills and learner satisfaction (Back et al., 2014; Barnard-Ashton et al., 2014; Lotrecchiano et al., 2013; Smyth et al., 2012; Ward et al., 2009). Education delivered through online tools allow for a wide footprint, potentially providing a low-cost, easily accessible means of health education for large numbers of healthcare staff and students (Blake, 2010; NIB, 2014; DH, 2011b). Online tools have shown to be an effective method for increasing knowledge in a variety of subject areas, whilst also providing flexibility and accessibility (Back et al., 2014; Keefe and Wharrad, 2012; Wharrad et al., 2012; Windle et al., 2010).

2. Aim

To develop an online learning tool about workplace wellness and evaluate its usefulness and acceptability for enhancing knowledge in individuals working in a UK healthcare setting. These include: [1] healthcare employees (working within the UK NHS); [2] healthcare educators (teaching healthcare students based within UK NHS hospitals); and [3] healthcare students (based within UK NHS hospitals and next generation of healthcare employees).

3. Design and development

In the development phase, a 60-min workplace wellness e-learning tool was created using Articulate Presenter (2013). Development adhered to the Centre for Excellence in Teaching and Learning in Reusable Learning Objects (RLO-CETL) Agile Development Workflow (2009) (Fig. 1). The process involved development of a 'storyboard' containing the draft content, resources and details of interactive elements, followed by
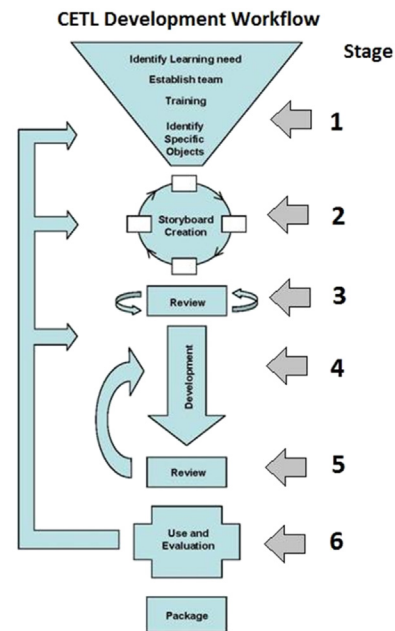
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Fig. 1. Blake and Gartshore.

development of draft content into an online resource, with an iterative process of peer review at each stage.

Content included key topic areas of work-related stress (Health and Safety Executive (HSE), 2010), musculoskeletal disorders (HSE, 2013), diet and nutrition (WHO/WEF, 2008), physical activity (NICE, 2008), smoking and alcohol consumption (WHO/WEF, 2008). Each key area provided current evidence-based information on causes and consequences, access to UK government reports and national statistics, and guidance on actions that could be taken to improve health within a workplace setting. Presentation of materials included the use of images, interactions, quizzes and activities (Joint Information Systems Committee, 2004) since interactivity is known to enhance engagement of the user (Cheong Li, Wong and Cheung, 2015; Clark and Mayer, 2011; Horton, 2006; Cook et al., 2008, 2010).

Initial content was drafted by a nurse and a health psychologist; this was reviewed by a panel of 14 UK-based workplace wellness experts with academic and practice expertise, who were identified through national workplace health networks and publications and commented on the accuracy and appropriateness of design and content (RLO-CETL, 2005). Once content was finalised, the online resource was developed and further peer reviewed by the panel of experts. The overall content review process took 8 weeks and responses were provided by the expert panel electronically. The final online tool was pilot tested with a group of 14 healthcare staff and students. Pilot participants were sent a link to the tool by email, and asked to complete the final version of the tool in their own time, record the time to complete, and raise any potential problems with future use; feedback was provided by return email. This user feedback allowed for the online tool to be developed to meet the learning needs of the group and improve essential elements such as the use of activities and images, allowing users to attain a higher level of understanding (Horton, 2006). Pilot testing resulted in minor amendments, including revisions to layout, formatting, and correction of minor technical issues. The resulting online learning