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Full Title: HAWN Training: development and evaluation of an educational training package to promote health and wellbeing in Nurses and Midwives

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Abstract

Background: Supporting the health and wellbeing of healthcare employees is a UK national priority.

Aims: To design, deliver and evaluate an educational package to promote health and wellbeing for nurses and midwives

Methods: An online training package was developed and administered in two ways: online (HAWN-online) or in a face-to-face workshop (HAWN-contact). A mixed- methods evaluation was used to assess usability and acceptability of HAWN training. **Findings:** 316 nurses, midwives and students completed the online training package. 16 participants attended the workshop. HAWN-online significantly increased knowledge in core areas of workplace health and wellbeing. Nurses and midwives valued online and face-to-face delivery but raised barriers to attendance at workshops. Participants advocated that training in workplace health should be mandatory for all frontline staff.

Conclusions: Employers should take steps to promote staff wellbeing through HAWN training, and address barriers to accessing workplace health training or supportive services.

Key Phrases

- Nurses and midwives urged employers to prioritise their health and wellbeing and introduce mandatory health and wellbeing training (*HAWN*) for frontline care staff.

- Healthcare organisations should address work-related barriers to achieving health and wellbeing at work.
- Remote and face-to-face delivery of *HAWN* training is well-accepted, although uptake of online package is higher as it offers greater flexibility.

Background

Improving NHS employee health became a central performance focus for healthcare organisations in 2016 (NHS England, 2016). Sickness absenteeism is high in the public sector. Many NHS employees and pre-registered professionals are overweight or obese, have low levels of activity, smoke or have an unhealthy diet (Boorman, 2009; Blake et al. 2011; Blake et al. 2012; Blake et al. 2013; Malik, Blake and Batt, 2011), and for some, knowledge of healthy lifestyle behaviours may be inadequate (Mo et al. 2011).

Health and wellbeing is important for nurses and midwives as public role models (Department of Health, 2010; Blake and Harrison, 2013; Blake and Patterson, 2015), and may influence the quality of patient care (Boorman, 2009; Blake and Patterson, 2015). There is an urgent need for intervention to promote health and wellbeing at work in nurses and midwives and support the discipline-specific health and wellbeing issues raised by these professional groups.

Online educational tools can increase knowledge about generic workplace health issues amongst users (Blake and Gartshore, 2016), whilst being wide reaching, re-usable and accessible (National Information Board [NIB], 2014; Department of Health [DH], 2011). Online packages may increase accessibility to training for employees working shifts although face-to-face training is often valued and can be preferred in individuals with low computer confidence (Blake and Gartshore, 2016).

The Study

Aim

To develop an educational health and wellbeing training package for nurses and midwives, and evaluate the uptake, usefulness and acceptability of online and face-to-face delivery methods.

Training Package Development

Xerte Online Toolkits V3 (2015) was used to develop *HAWN-online*, a 1-hour online training package that adhered to The Centre for Excellence in Teaching and Learning in Reusable Learning Objects (RLO-CETL) Agile Development Workflow (2009).

Qualitative stakeholder consultation (May 2015) informed content development and identified key generic and discipline-specific health and wellbeing issues to be addressed. Consultation included interviews (with 6 nurses, 3 midwives and 4 students), a focus group (with 7 nurses) and two employee consultation events at an acute NHS hospital trust (attended by 304 nurses and midwives). The resulting package included evidence-based information and support on: diet; physical activity; sleep; mental wellbeing; shift work and health; work breaks; and workplace rights. Images, quizzes, activities and videos were used to ensure interactivity and engagement within the online learning materials (Clark and Mayer, 2011).

An expert panel (including Human Resource specialists, Occupational Health, Trade Unions and Health and Wellbeing Co-ordinators) reviewed the content, interactive elements and questionnaires. As no previously validated questionnaires on this topic were available, knowledge questions were derived from the content using concepts of constructive alignment theory (Biggs, 1999). A peer review group of 23 individuals provided detailed feedback on the online content and questionnaire. Finally, the developed online package and questionnaires were pilot tested with 31 users.

A comparable 1-hour training workshop was developed (*HAWN-contact*) following the same themes, structure and adapted activities. This was delivered on three occasions by a nurse researcher and a health and wellbeing facilitator.

Sample/Participants

The online package (*HAWN-online*) and workshop (*Hawn-contact*) were offered as optional Continuing Professional Development (CPD) to nurses, midwives, healthcare assistants and students of nursing and midwifery based at a single acute hospital trust.

Data Collection

A quantitative dominant sequential mixed methods study (qual->QUANT->qual) (Morse, 2010) was used to evaluate the health and wellbeing training.

A one-group pre and post-test questionnaire method was used to assess health and wellbeing learning through *HAWN-online*. Fifteen multiple-choice questions assessed knowledge relating to national recommendations for health, and ways to achieve health and wellbeing at work. Nationally established e-learning evaluation questions were used (RLO CETL, 2005) to evaluate user perceptions.

All *HAWN-contact* workshop attendees were invited to complete an exit-questionnaire and attend a 20-30 minute semi-structured exit-interview. An information sheet was given prior to the interview and written informed consent was gained. Four researchers, who received training from the study team, undertook interviews following a standardised interview guide.

Ethical Considerations

The local institutional ethics review board classed this study as an educational evaluation and considered it exempt from REC approval. Permission was granted from the local NHS research governance team.

Data Analysis

Quantitative

Data were inputted and analysed using Statistical Package for the Social Sciences (SPSS) Version 23.0. Significance was set at $p < 0.05$ for all statistical comparisons.

Qualitative

Each interview was recorded and transcribed verbatim by a nurse researcher, and checked by another member of the research team. Two people established first, second and third order codes using Inductive thematic analysis and Nvivo 11.1. These were discussed collectively to identify the final themes.

RESULTS

Online Training Package Evaluation (*HAWN-online*)

Between August 2015 and November 2016, 316 participants voluntarily completed the pre-questionnaire and online training package. Of those who accessed the online package, n=136 completed the full 1-hour package including the post-questionnaire (43%).

Demographic Characteristics of Users

Participants completing the pre-questionnaire were predominantly female (94%, n=297). Ages ranged from 18-65 years. Participants were predominantly nursing staff (62%, n=196) and nursing students (20.9%, n=66). There were a small number of midwives (2.5%, n=8), student midwives (4.4%, n=14), and healthcare assistants (10.1%, n=32). The majority of participants (88.6%, n=178) worked in an acute setting. The demographic profile of those completing the full package and evaluation questionnaires was comparable.

Changes in Knowledge Scores

At baseline, knowledge scores were not normally distributed (Kolmogorov-Smirnov; 0.124, $p < 0.0005$) with a small negative skew (-0.30). The mean percentage of correct responses (score) (n=316, 67.5%±13.8) indicated that knowledge of health and wellbeing was moderate at the outset (over 50% accuracy).

Post-intervention the data reflected a much stronger negative skew (-0.96) and kurtosis (1.12). A paired t-test showed a statistically significant change in mean from pre to post assessment knowledge scores, $t(136) = -13.37, p < 0.0005$. Mean knowledge score significantly increased from 67.5% (s.d.13.80) to 81.8% (s.d.12.36; $p < 0.0005$) at post-assessment, with a large effect size (Cohen's d) of 1.1 (Cohen, 1988). A one-way ANOVA showed no statistically significant difference between pre and post scores according to: gender, age, occupation, time since qualifying, healthcare setting, level of study and year of study.

Perceived Usability of the Online Tool

Most participants accessed the online package at work (45.6%, n=62) or at home (36.8%, n=50). Self-rated confidence in using computers was rated average, or above average (97.1%, n=132).

The online package was considered useful (92.7%, n=126). Most participants felt their understanding of health and wellbeing had improved (84.6%, n=115), and that this resource would help them improve their health at work in the future (79.4%, n=108). The main reported barrier to completion was technical issues related to using the package on a particular browser (e.g. internet explorer). This may account for the high number of individuals who accessed the package but did not complete the post evaluation.

Workshop Evaluation (*HAWN-contact*)

Demographic Characteristics of Attenders

Sixteen participants attended one of three workshops in September 2016, including 7 nurses, 1 healthcare assistant, and 8 nursing students. No midwives or midwifery students attended the face-to-face workshop. All attendees completed the exit-questionnaire, and 15 participants opted to take part in an interview.

Workshop Evaluation

All participants either agreed or strongly agreed that they would recommend the workshop to colleagues. The vast majority (93.8%,n=15) either agreed or strongly agreed that they gained new knowledge from the training.

Participants most appreciated the discipline-specific relevance of the information provided, and the interactive nature of the sessions including opportunity for discussion of health and wellbeing issues in a group setting.

All participants advocated that *HAWN* training should be made available for all nurses and midwives to access as CPD training, and that health and wellbeing training should be a mandatory requirement within their profession: *I think everybody should be aware.* (Research Nurse)

Workshop Interviews

Three overarching themes were established from the interviews:

Why health and wellbeing is important

Participants related better health and wellbeing to improved productivity, staff retention, patient care and teamwork. Conversely, poor health and wellbeing was associated with reduced quality of patient care, unsafe practices and low morale. Benefits were seen to be for the employer, teams and individual healthcare professionals:

It's positive for everybody, health and wellbeing, and effectively this is going to have a knock on effect for the care we deliver. (Nurse Educator)

Barriers to achieving health and wellbeing

Negative influences that hindered access health and wellbeing services and engagement in healthy lifestyle behaviours included: missed breaks, shift work, limited time and heavy workload, unhealthy eating habits, dehydration and poor work-life balance.

It's very much a time issue for people to be able to do it 'cause we're struggling to get people to take breaks, actually physically leaving for an hour or so to attend a session, I think is a big thing. (Occupational Health Nurse)

Participants felt that the NHS trust and healthcare professionals themselves did not prioritise staff wellbeing:

I think it's the same when they're [nurses] at work, they do have a right to have these things but a patient needs something so your needs are always going to the bottom. (Outpatients Nurse)

Ways to improve health and wellbeing

The focus of how to improve health and wellbeing was on employer responsibility and the need for organisational changes. Participants highlighted the importance of organisational priority for health and wellbeing that is better promoted and advertised:

It has to come from the leadership; it has to come from them to say 'No, this is your break time'. (Occupational Health Nurse)

Making them (nurses and midwives) aware of what resources are available for staff... Having it in staff rooms, notice boards, or actually telling people. (Student Nurse)

DISCUSSION

To our knowledge, *HAWN* is the first training package that is specifically designed to meet the health and wellbeing needs of nurses and midwives.

The online delivery of this discipline-specific training (*HAWN-online*) was popular with healthcare professionals, uptake was high and most participants found online learning useful and engaging, a finding echoed in previous studies (NIB, 2014; DH, 2011). Knowledge about health and wellbeing at work significantly increased following exposure to the tool, which concurs with evaluations of previously developed generic tools promoting health at work (Blake and Gartshore, 2016). Further, participants reported that they would use the new knowledge to improve their health and wellbeing at work in the future. This is particularly important given the national drive to support the health and wellbeing of healthcare professionals (Boorman, 2009; NHS England, 2016).

When interviewed, participants raised prominent barriers to achieving health and wellbeing, all of which have been identified in previous studies, such as high workload (including lack of time, to engage in healthy activities or attend health and wellbeing services) (Alghamdi, 2016), shift work (Ferri et al, 2016), work environment (Von Treuer et al, 2014), work-life balance (Varma, 2016), inadequate nutrition and hydration, lack of physical activity (Blake et al, 2012) and inadequate work breaks (Witkoski and Dickson, 2010).

An important barrier to accessing health and wellbeing services was inadequate support from managers, which concurs with the NHS Staff Survey (NHS England, 2013) in which 56% of staff felt unsupported by their employer with regards their health and wellbeing. Additional barriers included inadequate promotion and advertising of opportunities, work pressures resulting in missing breaks and inability to attend supportive services (e.g. health and wellbeing activities, or training sessions on wellbeing).

By delivering the same content through both online and face-to-face methods, we were able to concurrently analyse the success and acceptability of both delivery methods. Participants indicated that access to face-to-face sessions was more difficult due to time commitment, location and convenience, and this has been reported elsewhere (Moore et al, 2011; Karaman, 2011). Online methods may help to overcome some of the barriers, with greater potential for wide reach and dissemination (Karaman, 2011).

Limitations

During recruitment, direct emails to staff were prohibited and advertising relied on clinical managers to disseminate the study advertisements to staff. This training was offered as a CPD opportunity, which is by nature optional for employees. Our data therefore reflects the views of those interested in learning about health and wellbeing. Midwives contributed to generating the key health and wellbeing issues to be addressed by the online tool, although training uptake from midwives was low.

Conclusion

Discipline-specific training on health and wellbeing for nurses and midwives (*HAWN*) is highly accessed and increases knowledge in core areas of workplace health and wellbeing. Nurses urged healthcare employers to take steps to overcome barriers to accessing support for health and wellbeing, through increased efforts to promote health and wellbeing mandatory training and supportive services to frontline care staff.

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Questions for Reflection:

Why is the health and wellbeing of nurses and midwives important for upholding high quality patient care?

How do you maintain your own health and wellbeing while at work?

What steps can you take to improve your own health and wellbeing in the future?