

# An Evaluation of Electronic and Paper distance Learning Packages for Practice Based Healthcare Staff

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## **ABSTRACT**

A national educational package was produced for practice-based healthcare staff, for which web-based delivery was designed as the preferred option. A paper-based version was also made available. This study aims to examine staff reasons for choice of delivery mode and explore their experience of using the learning materials. Results from questionnaires show that despite an apparent higher degree of computer literacy than the general population, where given a choice, 66% staff chose paper-based in preference to web-based delivery. The most common reasons supplied were lack of computer skills and lack of computer access. It also appears of concern that 33% of those choosing web-based delivery did not complete the package. These issues will be further explored by focus groups.

## **Keywords**

IT literacy, delivery modes, learner experiences.

## **INTRODUCTION**

Healthcare-associated infection (HAI) is recognized as having a major impact on the health service and those that use it (NHS QIS 2003). In Scotland, it is estimated that there are at least 33,000 patients a year who acquire one or more HAIs, in whom it is a major factor in the death of 457, and a contributory factor in a further 1,372. The annual cost to NHSScotland is upto £186 million, and 380,000 lost bed days per year (Walker 2001).

To address these concerns, in June 2002, the Health Minister, announced a new National training scheme with the aim of creating a "cleanliness champion" in every ward and clinical service in the NHS in Scotland. NHS Education for Scotland (NES) was commissioned to develop a web-based education package to deliver the required knowledge, skills and attitudes to these multidisciplinary, clinically based staff.

The use of e-learning for continuing professional development and training of NHS staff is a key part of the Government's Education and NHS agendas (NHS Executive 1998, NHSIA 1998, DOH 2001). There are however many practical issues on the ground that need to be addressed in the implementation of e-learning within the NHS (NHSIA 1999). These include lack of resources, lack of computer skills, and difficulties in releasing nurses from ward areas. These required a flexible approach in designing the package.

Following a series of National workshops with stakeholders, it was apparent that there was a need for a combination of delivery; whilst the package would be principally designed for e-learning via the web, it also needed to be available as paper-based materials.

This research project is examining the uptake and learner experiences of using the web and paper learning packages, in multidisciplinary healthcare staff, in particular reasons for choosing or not choosing web-based learning, and support issues of staff using the web package. This has implications for the design and delivery of future e-learning initiatives to clinically based staff.

## **AIM**

The aim of this pilot study is to evaluate two different modes of delivery (web and paper) of the "cleanliness champion" programme, to

- Examine reasons for choice of delivery mode
- Explore the experience of students using the learning materials

- Identify issues for future practice-based learning

## **METHODOLOGY**

All healthcare staff who had commenced the web-based or paper-based cleanliness champion programme in two local acute and primary care healthcare divisions, at the start of the project (August 2005).

Following ethical committee approval, all staff were asked to complete a postal questionnaire to determine demographics (eg age, sex, job role), reasons for choosing a particular delivery mode ( eg previous education, availability of resources) and usability of the materials. To assess attitudes toward, and experience in using a computer, questions from the British Computer Society (BCS) “General IT Literacy” survey of the British population were included (Georgiou 2004).

In the next part of the study 3-5 focus groups will be selected from the responses to the questionnaire. Participants will be prompted to discuss issues raised in the questionnaire exploring their experiences on the programme.

## **RESULTS**

107 questionnaires were distributed. To date 49 (46%) have been returned, from a wide range of multidisciplinary staff. 94% were female, with a median age of 35-44 years.

- 67% had previously used the computer for word-processing, 88% email and 90% the internet, compared to 68%, 68% and 73% respectively in the BCS survey.
- 67% stated they were confident in using a computer, 35% felt left behind by the rapid advances in computer technology and 49% would value training (BCS 60%, 45% and 43%).

Where stated (47 respondents), 32% used the web-based package, 66% paper-based and 2% both.

- 33% of respondents didn't complete the web package compared to 6% paper-based. Where completed the median time was >6months in both groups. There was no difference in perceived improvement in practice in either group with 56% stating their practice had greatly improved, 40% slightly improved and 4% the same.

## **CONCLUSION**

In summary, despite an apparent higher degree of computer literacy than the general population, where given a choice, 66% staff chose a paper-based learning package in preference to a web-based delivery which was promoted as the preferred option for learning. The most common reasons supplied were lack of computer skills and lack of computer access. These may be limiting factors in the use of web-based packages for clinical staff. It also appears of concern that 33% of those choosing web-based delivery did not complete the package. These issues will be explored in the focus groups, and the results presented.

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