
Executive Summary

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1 Introduction

“Needlestick Injury: A Clinical Scenario” is an online e-learning module for Scottish health and social care staff which has been delivered by the Healthcare Associated Infections Team at NHS Education for Scotland since May 2009 (8,279 completions until 18/10/2013). It has been evaluated by collecting user feedback via an online survey based on the Kirkpatrick levels of evaluation (Kirkpatrick & Kirkpatrick, 1994). In addition to this, Brinkerhoff’s Success Case Method (Brinkerhoff, 2003, 2005) was used to gain additional insights into the performance factors which enable or prevent the successful application of the learning within the Scottish health and social care system and learn more about how to achieve increased impact through learning interventions in the future.

1.1 Needlestick Injury

Some recent key reports on needlestick injury and occupational exposure are:

- The report on needlestick injury which was commissioned by the The Royal College of Nursing commissioned and published in 2008 (Ball & Pike, 2008).

These concluded that needlestick injuries pose a significant risk for the transmission of bloodborne viruses (BBVs) to staff in the health and social care sector.

2 Methodology

User feedback was collected in three steps, which are summarised in the table below. While the return rates for the first two steps were reasonable and within the expected range, the participation rate in the last step (interviews/paper form) was unfortunately very low (6.7%).

<table>
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<tr>
<th>Summary of evaluation process</th>
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<td><strong>Step</strong></td>
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Step 1. User feedback was collected via a link to a voluntary online module feedback form at the end of the online module.

Step 2. A very short second questionnaire was sent to the 603 respondents who had provided their e-mail address at the end of the course feedback questionnaire to participate in further evaluation follow-ups.

This short questionnaire asked participants to describe their experience in the successful application of the learning from the module for the following (linked to the learning outcomes for the module):

- Q1: Identified risk factors for needlestick injury in my workplace setting
- Q2: Taken good practice measures to prevent needlestick injury
- Q3: Identified poor practice in the use and disposal of sharps in my work area.
- Q4: Changed poor practice to safe practice for use and disposal of sharps in my work area.
- Q5: Taken appropriate actions required in a needlestick injury event.
- Q6: Select which statement best describes your experience since completing the NES "Needlestick Injury: A Clinical Scenario" online learning module.

Step 3. The last question in the second questionnaire asked participants if they were willing to contribute a story of their application of learning to the study. 104 users in total were approached to take part in an interview or complete the final short case study questionnaire. 17 participants volunteered to participate in a final case study questionnaire or phone interview. 3 paper questionnaires were returned and 4 telephone interviews were successfully conducted.

3 Results

3.1 Results from the Voluntary Module Feedback Questionnaire

3.1.1 Level 1 - Reaction, Satisfaction and Planned Action

- The course was taken mostly by clinical staff, and overwhelmingly by nurses.
- Users particularly rated the importance for their job highly.
- Generally the feedback was extremely positive.

3.1.2 Level 2 - Learning

- A lot of users commented that this course has been a “good refresher”. 25% of the user said that the course has made no difference to their confidence.
- Only 12% of the users said that more than 50% of the content was new to them, so for most users the course was a refresher.
- The user has no option to select the materials that are new to them.
3.1.3 Level 3 - Application and Implementation

Just over 33% of the users said that would use new methods or skills; only 26% of the users said that they would use tools. This could either be because the module does not provide sufficient information on these, or the users are already using the methods, tools, and skills mentioned in the module.

The greatest barriers to application and implementation of learning were:

- Lack of time to learn (mentioned 41 times)
- Other colleagues (attitudes, complacency, ignorance, lack of competence, resistance to change) (mentioned 37 times)
- Lack of equipment / issues with the environment
- Work pressures, being too busy in emergency situations
- Aggressive patients

3.1.4 Overall Evaluation

Overall the user feedback was excellent.

Over 50% of the users were interested in learning more about this topic, which is a relatively high number compared to some of the other topics offered by the NES HAI team. This is clearly a subject important to users. Several suggestions for improvements were made by users, which can also be applied to other course updates in the future.

3.2 Results from the Success Case Method Questionnaire:

![Graph showing successful application percentages for different objectives]

- 62.8%
- 55.6%
- 40.6%
- 37.8%
- 20.6%
- 48.0%
**Recommendations**

In order to facilitate a better question analysis, it would be better to include further questions in the Success Case Method Questionnaire to find out more about the following:

1. What was the reason for taking the course / what was the learning need?
2. What was the previous knowledge base in this topic area?

This would allow a closer alignment of certain types of users and their answers.

Provide updates on the topic also by other means, e.g. using web sites, e-mails or social media.

### 3.3 Results from the Telephone Interviews/ Paper Questionnaire

<table>
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<tr>
<th>Why do you think you were not successful in applying your learning? What were the main factors?</th>
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</table>
| • I have not applied any learning at present due to not having close contact with needles and I have not had any incidents to deal with.  
• I have had no opportunity to try anything out.  
• No new content.  
• Under time pressure at the time.  
• Organisational issues were a barrier  
• Attitudes and actions from colleagues actively prevented me from following the right procedure. | • I’m interested in the subject.  
• The course built my confidence to support others.  
• I defined an actual problem in the workplace, so I was motivated to do something about it.  
• I was confident enough to speak to my manager and ask for help. |

<table>
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<tr>
<th>What impedes or stops performance improvement from learning?</th>
<th>For you, what facilitates performance improvement from learning? What makes learning successful?</th>
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| • Lack of support from management and colleagues.  
• Lack of communication of learning back to the team  
• Lack of time to follow correct procedures.  
• People are doing too much learning already  
• Lack of tangible outcomes | • Equal and easy access to learning  
• Support from manager  
• Opportunities to learn and try things out  
• Serious situations, perceived danger and urgency  
• Pride in your work  
• Concern about patients |
Learning Points – Performance Improvement

The outstanding themes here were the need for support from management and colleagues and the need to work as a team.

Tools and techniques for communicating learning points would be seen as useful.

If motivated staff take the course they are more likely to try to take something forward in their own area.

Tangible outcomes are important for learners, and they are essential for driving improvement.

Users would like more case studies or scenarios, including some that are not ward based.

Make different content available for different roles: Health visitor, dentists, nurses, etc.

4 Main Learning Points

4.1 Application of Learning

One of the goals of the evaluation was to focus on application and performance improvement rather than just learning. The outstanding result of the evaluation was:

“The biggest barrier to the application of learning in the workplace is colleagues.”

The evaluation and especially the interviews have shown that learning in order to improve performance in the workplace should not just involve individual learners.

In order to allow learners to implement something new in the workplace, other questions should be considered:

- Why is the person going to undertake some learning?
- Does everyone in the team agree that the person going is the right person?
- Does everyone in the team know that they are undertaking some learning?
- What is the purpose of the learning for the team?
- What is going to happen when the person comes back with new knowledge and practice skills?
- How is the application of the learning going to be supported by the team and management?
Some of the main organisational barriers identified were lack of management support or issues related to hierarchies and relationships in the workplace.

4.1.1 Recommendations – Learning for Further Initiatives

The following recommendations can be made for future module development, support of the application of learning and impact analysis:

- The target groups need to be clearer.
- The purpose of the course needs to be clearer, and if the course is a refresher course then there should be an option for users to check their knowledge and then refresh their knowledge where there are gaps.
- New content needs to be clearly marked, in case learners come back to the course as a refresher after a certain time.
- Not all information sits best on an online learning platform. Content in alternative formats should be included.
- Guidance should be included for the learners on how to use their knowledge in the workplace.

5 References


http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1227688128096

