Training for practice nurses: Reducing the risk of cardiovascular disease and diabetes in people with mental illness

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People with a severe mental illness (SMI) have a three-fold increased risk of diabetes, compared with the rest of the population. Despite this known fact, screening for diabetes in this group has not been routine practice in primary care (Hardy et al 2013; Mitchell and Hardy, 2013). One barrier to this happening could be that the educational needs of the healthcare professionals in this area are not being met (Hardy, 2014). Additionally, contractual guidelines (British Medical Association, NHS Employers, 2013) at the time of this project (2012–13) required glucose testing as part of the annual screening only in people over 40 years of age. Currently, after a change to these guidelines, all obligations to check for blood glucose levels have been removed (British Medical Association, NHS Employers, 2014).

Aim of training
Practice nurses presently have little contact with people with SMI, but are skilled in providing care for people with long-term physical conditions such as diabetes, heart disease and a number of other illnesses. The aim of the training was to assist practice nurses to provide people with SMI with treatment in line with service provision for people with long-term conditions. A previous study has shown this can have a positive effect on levels of screening (Hardy et al, 2014).

Method
The course, designed specifically for practice nurses, was offered on twelve occasions to practice nurses in the East Midlands (average participation n=9). Mental health nurses were also invited to attend to support the practice nurses. The short course (4 hours) covered basic awareness of SMI, the increased cardiovascular risk in this group and, therefore, the need for glucose testing as part of the annual screening, and screening and management. Specific tools designed to use in practice were provided (these tools can be downloaded from http://physicalsmi.webeden.co.uk). Practice nurses’ perceived knowledge and skills were measured pre- and post training using questionnaires. These questionnaires covered two elements: attitudes towards their role and service provision (items 1–3) and their perceived knowledge and skills (items 4–9).

Results
Post training scores were very high for both attitudes and knowledge, some demonstrating “ceiling effects” (items 1, 2, 3 and 6). See Table 1.

Table 1. Pre- and post-training evaluation questionnaire means (standard deviation).

<table>
<thead>
<tr>
<th>Item</th>
<th>Pre training</th>
<th>Post training</th>
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<tbody>
<tr>
<td>I understand how severe mental illness can affect a patient.</td>
<td>3.8 (1.04)</td>
<td>4.6 (0.63)</td>
</tr>
<tr>
<td>I have a responsibility to provide care for people with mental illness.</td>
<td>4.4 (0.88)</td>
<td>4.8 (0.52)</td>
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<tr>
<td>Services for people with severe mental illness should be provided following the same model as those for diabetes.</td>
<td>3.8 (1.25)</td>
<td>4.7 (0.79)</td>
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<tr>
<td>I know the type of medication that is usually prescribed for people with severe mental illness and some of its effects.</td>
<td>2.7 (1.14)</td>
<td>4.1 (0.81)</td>
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<tr>
<td>I feel confident in assessing a patient with severe mental illness for the side effects of their medication.</td>
<td>2.2 (1.09)</td>
<td>3.9 (0.80)</td>
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<tr>
<td>I am aware of what constitutes best practice when carrying out a health check for people with severe mental illness.</td>
<td>2.9 (1.04)</td>
<td>4.6 (0.66)</td>
</tr>
<tr>
<td>I feel confident in assisting a patient with severe mental illness to plan their care.</td>
<td>2.2 (1.10)</td>
<td>4.1 (0.76)</td>
</tr>
<tr>
<td>I understand the role of the community mental health team.</td>
<td>2.7 (1.08)</td>
<td>4.0 (0.85)</td>
</tr>
<tr>
<td>I understand how/when to contact the community mental health team.</td>
<td>2.8 (1.19)</td>
<td>4.0 (0.85)</td>
</tr>
</tbody>
</table>
The items were rated on a scale of 1–5, with 1=disagree and 5=agree. All pre- and post differences were significant at \( P<0.0005 \). The average standard error of mean (SE) was 0.11. Cronbach’s alpha reliability was very high (alpha=0.85), thus calculation of a total sum score for all nine items is fully justified. Items were combined into a total score; baseline and post-training comparisons indicated a highly significant improvement (pre-training: mean=27.2, SD=6.9; post-training: mean=38.5, SD=4.7; \( P<0.0005 \)). See Figure 1.

Qualitative comments were analysed using thematic analysis and three themes emerged:

1. Enjoyment and learning
   - “Fabulous afternoon of learning and discussion.”
   - “Excellent resources to be used in practice.”
   - “Very good and glad someone is taking this on!”

2. Implementation
   - “Feel greater understanding of what health checks to perform and reasons why.”
   - “Better understanding of SMI and the side effects.”
   - “Frustrated. I think we could do more in primary care, but we are time limited (20 mins per patient) for mental health check.”
   - “I do not feel in my role as a practice nurse that I could stop or change their medication, but I could look into the side effects, as I come into contact with the individuals.”

3. Duration and frequency
   - “As the subject is so in-depth my recommendation is delivering this course as a 1-day course.”
   - “As a practice nurse, we need more training on SMI. This should be ongoing (yearly).”

**Sustainability**

Thirteen practice nurses responded to open-ended questions via an e-mail questionnaire three months after the training. This showed that the training prompted ten of them to carry out and/or improve health checks for people with SMI in their practice (two were already doing so before joining the course). Ten practice nurses found the tools provided during the training useful (three made no specific comment). All respondents thought the training would be valuable to other practitioners.

**Summary and conclusions**

We have shown that a short course can make a difference to practice nurses’ perceived knowledge and skills. Additionally, the practice nurses involved appear to be positive about taking on the role of looking after people with SMI. This could increase both the prevention and diagnosis of diabetes in the SMI population. The limitation of this specific project was that there was only one trainer; however, a project carried out by NHS London using tools developed by the Sheila Hardy has shown that the “train the trainer” model is successful. A further “train the trainer” project is currently being carried out by Sheila Hardy, in collaboration with Health Education North Central and East London and UCLPartners.

**References**


