The development of the serious mental illness physical Health Improvement Profile

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People with serious mental illness (SMI), such as schizophrenia and bipolar disorder, are more likely to suffer from a range of long-term physical conditions including diabetes and cardiovascular disease. Consequently they will die 10–15 years earlier than the general population. Health services have failed to address this major health inequality because of a lack of consensus about the type and frequency of monitoring people with SMI require and a lack of knowledge and skills in the mental health workforce. We developed the SMI physical Health Improvement Profile to help mental health nurses profile the physical health of the SMI patients they work with and direct them towards the evidence base interventions available to address identified health problems.

Keywords: bipolar disorder, HIP, metabolic syndrome, physical health, schizophrenia, serious mental illness

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Background

It is conservatively estimated that people with serious mental illness (SMI) die at least 10–15 years earlier than the general population (Disability Rights Commission 2006). Rates of CVD are two to three times higher than in the general population (McEvoy et al. 2005). This may be because many of the modifiable risk factors associated with CVD, such as smoking, obesity, poor diet, diabetes, hyperlipidaemia and lack of exercise are highly prevalent among people with SMI (Brown et al. 2000).
Respiratory disease, some forms of cancer, diabetes and AIDS are also more common, and mortality rates from these illness are unacceptably high (Robson & Gray 2007).

People with SMI are among the most socially excluded members of our society. It is estimated that just 21% of people with mental health problems of working age are in employment compared with 81% in the general population. (Disability Rights Commission 2006). The additional burden of long-term physical illness may make it even harder for people with SMI to work.

The medicines used in SMI, while effective in treating psychotic symptoms, may have detrimental effects on a patient’s physical health. For example, the metabolic side effects of some second-generation antipsychotics have been well documented and include increased risk of weight gain, dyslipidaemia and insulin resistance (Barnett et al. 2007).

Responsibility for monitoring and managing the physical health of people with SMI should be shared between primary and secondary care services (Department of Health 2006c). However, in practice these needs are not being met, and people with SMI often ‘fall through the net’. For example, Brugha et al. (1989) observed that in 145 people with SMI attending a psychiatric day-care unit 41% had unmet physical health problems. Perhaps practitioners in secondary care believe that the physical health needs of patients with SMI are being met (or should be met) by colleagues working in primary care. Burns & Cohen (1998) observed that while people with SMI are more likely than the general population to attend primary care, they are less likely to have key aspects of their physical health (weight, blood pressure, cholesterol) monitored. This perhaps suggest that primary care practitioners believe the physical healthcare needs of patients with SMI are (or should be) met by colleagues in secondary care.

There is a need to address these inequalities in physical health care. In England, Standards for Better Health sets quality standards for health care that challenge discrimination and promote equality of access (Department of Health 2006a). Core standard 22 states that organizations must reduce the health inequalities experienced by their service users by working cooperatively with other organizations. Core standard 23 requires organizations to have systematic disease prevention and health promotion programmes that place particular attention on reducing obesity through action on nutrition and exercise, smoking, substance misuse and sexually transmitted infections.

Competence in physical health monitoring and medicines management are identified as essential skills for all nurses (Nursing and Midwifery Council 2007, 2008a). Mental health nurses (MHNs) form the largest part of the mental health workforce. The nature of their role and frequency of contact with patients affords a unique opportunity both to profile the physical health needs of people with SMI and to help patients to respond in a positive way to identified problems (Robson & Gray 2007). The Chief Nursing Officer’s review of mental health nursing in England emphasized the importance of this role and stated that MHNs should be able to ‘refer on to medical or other primary care staff in response to evidence of unmet physical health need, arranging support as required to ensure services are then actually received; or arrange for further investigations themselves’ (Department of Health 2006b, Recommendation 7).

Mental health nurse training has been criticized for failing to deliver physical health competencies (Department of Health 2006b). The current curriculum includes anatomy and physiology and clinical skills, such as pulse and blood pressure monitoring. This may be delivered in the generic common foundation part of the course by lecturers from other branches of nursing. Application of this knowledge and the development of skills are expected to occur while students are on practice placements. Opportunities for students to practise, to develop these skills and to achieve competence are limited. Mentors often struggle to support students because physical health assessment has not been part of their routine practice. This problem is not unique to mental health nursing; psychiatrists also lack skills and confidence in physical examination and assessment (Garden 2005).

In a survey of the training, needs of 168 MHNs half had not had any training in physical health care although 96% said that they would benefit from attending such a course (Nash 2005). Many service providers are trying to address the physical health competence deficit through commissioned education. However, to train the 40 000 MHNs that urgently need access to these skills represents a major challenge. Traditional models of sending nurses to attend a short training course are often effective at changing competence and practice (Gray
et al. 2001, 2003), but they probably do not change the practice of the mental health nursing workforce as a whole. This is because of the lone change agent phenomena: nurses who learn new skills tend not to use them and conform to the group norm. Knowledge and skills can be rapidly washed away when competencies are not practised.

The challenge

Mental health nurses are in a unique position to positively affect the physical health of people with SMI but need to develop new competencies to enable them to do this. We worked in partnership with Bristol Myer’s Squibb and Otsuka Pharmaceuticals (UK) who funded the project as a service to medicine. We adhered to best practice guidance on joint working with the pharmaceutical industry (Department of Health 2008). The project aimed to meet patient and National Health Service need for improved physical health care. We made sure the initiative was accessible and sustainable by making the tool and training materials copywrite free so that if funding was withdrawn at any stage they could continue to be freely used. To ensure the initiative was cost-effective, we facilitated a cascade method of training with the aim of reaching as many practitioners and patients as possible within the resources available. The delivery of the training was non-promotional and specific to the tool, and industry involvement in supporting the work was disclosed to participants, thus adhering to both industry and professional codes of conduct (Association of the British Pharmaceutical Industry 2008, Nursing and Midwifery Council 2008b).

We decided to explore a novel three-step model of competence cascade.
1. Review the literature to identify key health parameters to include
2. Review the literature to identify recommended action for health parameters outside of normal range
3. Develop a draft SMI physical Health Improvement Profile (HIP)
4. Review and critique the face validity and utility of the profile
5. Produce a final version of the SMI physical HIP
6. Develop a training package
7. Train a group of MHNs to act as trainers
8. Train MHNs to use the profile

Developing the SMI physical HIP

The first part of the model was the development of the HIP. We agreed that the profile needed to address:
- the major health priorities in the general population;
- health problems where there is evidence of increased morbidity/mortality in people with SMI;
- health behaviours;
- to flag each health parameter (green = healthy; red = action required);
- to propose evidence-based action for each health parameter flagged red.

Identifying health parameters

A literature review was undertaken to identify the health parameters to be included in the HIP (Robson & Gray 2007). Additionally we consulted with experts (professionals and by experience) in each of the areas we were considering including in the tool. This process generated a list of 28 health parameters (see Fig. 1). Three of the items required gender-specific ranges (cervical smear, menstrual cycle and prostate and testicles check).

We also debated the inclusion of what were considered ‘routine’ assessments on first contact, e.g. routine haematology, physical examination and history taking. It was agreed that the HIP would try to address parameters that were known to be specific risk factors in physical health in SMI and not those that would be expected of any routine medical examination. For example, temperature, pulse and blood pressure were included, but routine haematology was excluded.

Recommended action

The literature review was used as a basis for recommending actions for each of the HIP parameters that fell outside the normal/healthy range; these were listed in a separate column with a tick box to indicate what had been discussed with the patient. We also searched the literature to identify any special considerations for people with SMI. For example, when considering the ‘temperature’ item, it was important to include information to prompt nurses to consider the possibility that a raised temperature (pyrexia) might be a sign of the rare but potentially fatal neuroleptic malignant syndrome.
Details of parameters were included where their ranges had special consideration in SMI for the next steps to be taken by the MHN. For example, lipid profile ranges were included for all parts of the test as hyperlipidaemia is a specific risk factor in CVD for this population (Barnett et al. 2007). The ‘teeth’ parameter, however, referred only to frequency of dental checks, as a nurse would use this information to assess if patients needed support or prompting to attend a dentist.

Consultation of draft version of the HIP
Feedback from expert reviewers (MHNs, psychiatrists, physicians and experts by experience) suggested that the profile had excellent face validity and clinical utility. Feedback from the consultation suggested that there was a need for the HIP to fit onto one side of A4 paper. This was considered important to maximize the clinical utility of the tool.

Final version of the HIP
The final version of the HIP was printed on three sheets of carbonated paper (one copy each for the patient, their medical records and their family doctor) and produced in pads of 100. The 27-item female version was printed on pink paper (Fig. 2, left), the 26-item male version on blue paper (Fig. 2, right). A cardboard inlay that contained a comprehensive reference list also served as a separator to place between each copy of the profile.

Developing a training package
This part of the cascade model was the development of a 3-h training package – based on our review of the literature – that aimed to enable a nurse to be competent in completing the HIP with a patient with SMI. The training programme was interactive and emphasized the rationale for addressing physical health in people with SMI. The training kit contained a 64-slide PowerPoint presentation. The slides presented a rationale for the each of the HIP items for profiling the physical health of people with SMI. Each of the slides also contained additional background information and/or references.

Training the trainers
We recruited a cohort of 24 trainers to attend a 3-day train the trainer’s course that took place in Birmingham in October 2007. Each of the trainers met the following criteria:
The trainers’ course followed an experiential model of training. We aimed to provide trainees with in-depth knowledge of physical health in SMI. Particular attention was focused on metabolic risk, diabetes and CVD. Content included keynote presentations on the management of diabetes and cardiovascular risk in SMI, modelling of delivery of the workshop by the authors, a workshop to examine the detail behind the workshop, clinical skills practice in using the HIP, presentation skills training and action planning for effective dissemination. Evaluation of the training cascade and use of the HIP is ongoing. We will soon publish a case series and are planning an effectiveness trial.

The authors are aiming high, for population level change in physical health care in SMI by dissemination of the HIP, which they believe is achievable. If each trainer delivers two workshops to 15 nurses each and each one of these nurses completes a HIP on 20 patients they see with a diagnosis of SMI, 14 400 (approximately 3% of the UK population with SMI) could have their physical health needs assessed and acted on within the next year. Further dissemination via this training method could magnify this effect to a population level. This is an ambitious target but a necessary one, if MHNs are to make an impact on the unacceptable levels of physical co-morbidity and mortality in SMI and help their patients to get a life worth living.

References


