Bridging the gap between research and clinical practice – a new initiative

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Research is critical in advancing health care and improving outcomes for patients. The NHS constitution\(^1\) pledges to inform patients of research that they may be eligible to participate in. However, this often does not occur and can be particularly challenging in mental health services, with a number of barriers causing difficulties. Here the authors explore some of the reasons for difficulties in recruiting patients to mental health studies and offer a potential solution.

Mental health studies often recruit low numbers of participants: in one evaluation fewer than a third achieved their recruitment targets on time. This is an economic and ethical issue, with ‘failed’ studies incurring significant financial costs and not gathering evidence despite patients giving their time and taking part. The reasons for this problem are complex.

Nationally, there is significant underinvestment in clinical services and research activity in mental health when one considers the prevalence and burden of such conditions. Mental health problems account for 28% of total disease burden nationally, yet receive only 18% of all NHS spending.\(^2,3\) Even worse, mental health research accounts for only 5.5% of the total health research spend in the UK.\(^4\) This toxic combination of under-resourced and overstretched clinical services alongside limited funding for research activity is a significant factor in the increasing difficulty in conducting such research over recent years.

Within organisations there are several factors that appear to act as barriers to research participation for patients.\(^5\) Staff awareness of ongoing research may be limited and busy clinicians might not see encouraging patients to be involved as the optimal use of their limited clinical time. Moreover, many feel they need to ‘protect’ their patients from research. These attitudes are much less common in other specialties, notably oncology, where research participation is very much routine and often the only way to receive innovative treatments. Additionally, we know that patients want to be made aware of opportunities.\(^6\) In mental health services in particular, research and development departments may have little routine contact with clinicians, and ‘silo working’ can easily develop. This can limit the ability to achieve the desired goal of patients being able to decide whether or not they take part in research having been made aware of opportunities.

The solution

In Oxford Health Foundation Trust (OHFT) we decided that it was clearly in the best interests of patients, clinical staff, and research teams that something be done to remedy this situation and bring clinical care and research closer together. A pilot with research assistants (RAs) working 50% in research and 50% in clinical practice had previously been successful\(^7\) and the Trust management agreed to extend this by joint funding seven RA posts with the National Institute for Health Research (NIHR) Clinical Research Network for the Thames Valley and South Midlands. The specific remit of the RAs was to embed themselves within clinical teams. This turned on its head the traditional approach of the research team being located on another site and visiting.

By being visible within teams and available to help with clinical work we aimed to:
1. Increase awareness of research in general, and of specific studies that were available for patients
2. Reassure clinical teams by repeated demonstration that research does not harm patients and, indeed, is associated with improved outcome
3. Make research teams and staff more aware and considerate of the pressures in clinical services
4. Get closer to the point where it is patients themselves who decide whether or not to take part in research
5. Allow for the adoption of studies that address the whole spectrum of mental health and ensure that study adoption was sensitive to the needs of the clinical service to reduce tensions in provision and research.

From our pilot it was also clear that a large number of patients received interventions and support that they otherwise would not have done and that the researchers themselves very much valued the clinical practice and extra experience. The latter made posts

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attractive and enabled a number of people to move on into clinical training posts.

The team
A team of seven researchers was put together with one manager and input from a consultant psychiatrist (0.1 WTE) in the Trust. Each RA is fully embedded in a community mental health team. The researcher attends all clinical meetings and has a brief time slot (approximately five minutes) to update staff about what research is going on. They take a general role in answering queries about research, minimising excessive communication or requests from research teams, and encouraging staff to think about putting patients forward while minimising the burden when they do so.

The team supports a variety of NIHR portfolio and non-portfolio studies that focus on a wide range of mental health problems and associated factors. The projects vary from questionnaires and interviews to higher intensity medical procedures such as MRI brain scans. One example of this is the Comparing Policy Framework, Structure, Effectiveness and Cost-effectiveness of Functional and Integrated Systems of Mental Health Care (COFI) project aimed at comparing functional and integrated systems of mental health care in 14 different hospitals in six countries. The study involved interviewing every new inpatient within 48 hours of admission – without the RAs’ input the Trust would simply not have had the capability to take on this project.

Some studies provide access to novel treatment options that are not currently available within the NHS, like different aspects of psychological therapy or new medication. One example of this is the virtual reality or ‘feeling safe’ studies, which are a part of Oxford Cognitive Approaches to Psychosis (O-CAP) group that focus on testing variations of cognitive behavioural therapy for people with persecutory delusions.

RAs are also responsible for the implementation and administration of True Colours (TC), an innovative online self-monitoring and self-management system for patients with long-term health conditions (www.truecolours.nhs.uk). TC was developed by Professor John Geddes and his team at the Oxford University Department of Psychiatry. It has proved clinically valuable and is increasingly used for measuring outcomes in clinical trials. The system provides a platform that can capture any digital data stream, including physiological data, GPS, actigraphy, etc. Implementation of TC has been supported by OHFT since 2008 and is now offered by the Trust to many patients as a part of standard clinical care. Using TC, an individual can monitor their own physical and mental wellbeing and improve their awareness and understanding of their condition and develop ways to manage it. RAs explain the way the system works to patients, train clinicians on a one-to-one or group basis, and sign up both patients and clinicians to TC. In addition, RAs provide supportive therapy to a small caseload of two or three patients and co-facilitate therapeutic groups offered by their respective community teams. The individual clinical work includes anxiety or anger management, behavioural experiments, and exposure exercises.

The team has now been operational for over a year. OHFT is currently the highest recruiting Mental Health Trust by head of population for NIHR portfolio studies (studies approved and funded by nationally recognised bodies) in adult mental health. There are clear indications that clinical staff are more receptive to research and think about it as part of their routine clinical practice. As we know that the vast majority of patients want to be aware of research and take part where they can and that participation is associated with improved outcome, this can only be a good thing. The fact that it allows for better gathering of important research data that should help to improve practice in future is even better.

The future
Now that the team has been established for over a year and is financially stable (thanks to the innovative approach of the Trust and CRN), we are expanding into children and young people’s services and our inpatient units to further widen participation and support patients to take part, and to support staff to help them do so. The team is reaching out to other areas outside the Trust to support them with similar initiatives. We are always happy to receive visitors: numerous students, trainee doctors, and others have been and visited and shared in the idea.

If you have any queries then please do email the team manager, Zandie Forrest, or the consultant, Andrew Molodynski, at Alexandra.forrest@oxford-health.nhs.uk or Andrew.molodynski@oxford-health.nhs.uk

Mrs Ciapala and Mr Mullins are Research Assistants and Ms Forrest is a Research Implementation Manager, all at Oxford Health NHS Foundation Trust. Dr Molodynski is a Consultant Psychiatrist at Oxford Health NHS Foundation Trust and Honorary Senior Clinical Lecturer at Oxford University.

Declaration of interests
No conflicts of interest were declared.
POEMs – Useful signs and symptoms of severe intracranial injury after minor head trauma

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Sir,

I read with interest the above short literature search in your January/February 2016 issue. This is not a direct response or criticism of the above search but more highlighting the following points, especially from a practical point of view in classification of severity of traumatic brain injury. Although the Glasgow Coma Scale (GCS) is an important factor to assess the severity and prognosis after traumatic brain injury, there are other factors which are also important (shown in the table).

**Coma** – the longer the coma the worse the outcome.

**Post-traumatic amnesia** (PTA) is a state of confusion and memory loss that occurs immediately following a traumatic brain injury in which the injured person is disoriented and unable to remember events that occur after the injury. The longer the period of PTA the worse the outcome.

From a rehabilitation point of view and considering the outcome, after traumatic brain injury, there are many exceptions to these prognostic factors and it is always unwise to give any definite prognosis within the first few weeks of injury.

Other clinical findings, including evidence for brain stem involvement such as dysconjugate gaze or altered pupillary responses, can add power to prognostic indication. The most useful information is often the actual early recovery course a patient demonstrates. People under 20 years of age generally have a better outcome than those over 60 with the same kind of injury. Another variable unrelated to the injury itself are the patient’s premorbid physical and psychosocial status.

There is also a crude correlation between the amount of brain damage (as determined by brain imaging) and long-term outlook.

Life expectancy is usually normal after brain injury except for people with severe disabilities. The following factors are generally agreed to reduce life expectancy in traumatic brain injury victims:

- Immobility
- Incontinence
- Inability to swallow and consequent necessity of NG or PEG tube
- On-going and uncontrolled seizure
- Severe cognitive and intellectual damage

The **Rivermead Post-Concussion Symptoms Questionnaire** (RPQ) is also useful to assess the severity of symptoms in people who sustain a concussion or other form of mild to moderate traumatic brain injury. This questionnaire measures the severity of a set of somatic, cognitive and emotional symptoms that may continue from a week to more than six months.

**Letters**

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<thead>
<tr>
<th>Minor brain injury</th>
<th>Duration of coma</th>
<th>GCS</th>
<th>Duration of PTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15 mins</td>
<td>13 or 14</td>
<td>&lt;1 hour</td>
<td></td>
</tr>
<tr>
<td>Moderate brain injury</td>
<td>15 mins–6 hours</td>
<td>8–12</td>
<td>1 hour–24 hours</td>
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<tr>
<td>Severe brain injury</td>
<td>6 hours–48 hours</td>
<td>&lt;7</td>
<td>24 hours–7 days</td>
</tr>
<tr>
<td>Very severe brain injury</td>
<td>&gt;48 hours</td>
<td>&lt;7</td>
<td>&gt;7 days</td>
</tr>
</tbody>
</table>

**Generalised prognostic indicators post-traumatic brain injury**

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