

Advancing Healthcare Sciences through Staff, Student and Service User Partnerships

Vivien Rolfe

University of the West of England

Introduction

The National Health Service (NHS) scientific workforce comprises approximately fifty different disciplines, and 2011 saw the publication of a Department of Health report outlining the intended streamlining of scientist training as part of 'Modernising Scientific Careers' (MSC) (Department of Health, 2011). This initiative attempted to unify the delivery of undergraduate-level education through a core 'Healthcare Science' Bachelors programme. Central to the reforms, and therefore an integral part of curricula, is the involvement of service users in the delivery of programmes, as healthcare science workers are integral to some 80% of all patient diagnosis and therefore need to understand the perspectives of everyone that their work impacts upon (Department of Health, 2010).

Service user involvement is already embedded within other areas of healthcare and medical training, but for Healthcare Science the concept is new and academic teams designing and delivering these new programmes are having to adjust rapidly to the new requirements. At undergraduate level, the 'practitioner-level training programme' (PTP) has replaced older iterations of training; Healthcare Science 'Physiological Sciences' replaces the former 'Clinical Physiology' (BSc Honours) as the primary training pathway for physiologists. Biomedical Scientist training is now delivered via Healthcare Science 'Life Sciences' Bachelors programme, although, in this instance, other training routes still are valid through the pre-existing and professionally-accredited Biomedical Science degree pathway. Developed programmes are having to comply with the MSC curriculum requirements alongside the specifications of their relevant professional bodies regarding service user and carer involvement, with the Health and Care Professions Council, for example, including service user as a standard of education and training in 2014 (Health and Care Professions Council, 2014).

In the Healthcare Science undergraduate scheme, students complete a professional portfolio of work-based competencies to fulfil the requirements of the PTP. These are challenging undergraduate programmes, unique in that they offer around fifty weeks of work-based training integrated into three years of study. It is interesting to note that of eighty Healthcare Science programmes that were validated in twenty-three Higher Education Institutions at the outset of the MSC initiative (NHS Networks 2014), nineteen courses have subsequently been closed (UCAS, 2014). This may reflect some of the challenges in delivering these programmes, where planning and integrating work-placements are often the responsibility of academic teams; a lack of awareness within schools and colleges results in low levels of recruitment and, from the NHS workforce perspective, an inclination to hold on to older and more established training pathways.

The idea of service user involvement covers a broad range of activities. It may be referred to also as public or patient involvement (PPI), carer or lay involvement. At the University of the West of England (UWE), the initiative is referred to as service user and carer involvement, public involvement and patient engagement (SUCI PIPE), which reflects the diverse group

who chose to participate across programmes within the Faculty of Health and Applied Sciences. Those taking part in education settings will share their experiences, whether as a patient, family member or carer, or more generally as member of the public. In this paper, individuals will be referred to as 'service users'. For Healthcare Science, where activities are in their infancy, new ways of working are being established. In the present institution, a three-way partnership between student, service user and teacher is an emerging paradigm, with open exchanges during teaching delivery and feedback following these sessions. The partnership is built on trust and the process for involvement includes financial and administrative resource.

This case study presents the approaches taken in one Higher Education institution to embed service user involvement into two undergraduate programmes, namely Healthcare Science 'Life Sciences' (BSc Honours) and Healthcare Science 'Physiological Sciences' (BSc Honours). The study draws on existing literature relating to service user involvement, outlines resource and infrastructure requirements for consideration, the approaches adopted to integrating involvement in programme governance and delivery, and reports on the challenges and benefits perceived at these early stages of implementation. Finally, recommendations for future research are proposed.

New tripartite partnerships in a changing curriculum

These tripartite partnerships are new to Healthcare Science, although they are more established as approaches in other medical and health-related areas and are therefore embedded within curricula. In mental health, service user consultations were held to improve the planning and management of health services (Peck *et al*, 2002). Service user involvement in mental health is also well established in terms of contributing to education opportunities and shaping curricula to ensure that teaching sessions genuinely relate the concerns of users (Bailey, 2005). In medicine, shared decision-making between patients and clinicians reflects a change in practice approaches and research is helping the academic community to understand these approaches and the tools required to support service users in making these decisions (Elwyn, Laitner, Coulter *et al*, 2010). Patients are proactively involved in surgical decisions, such as selection of the best aortic valves for replacement (Korteland *et al*, 2014). Therefore, patient involvement and the recognised importance of such positive contributions in medical education is widely acknowledged (Lucas and Pearso, 2012).

For healthcare professions like clinical physiology, the involvement of the service users in teaching can be logically reasoned, since the professionals directly interact with patients in care settings and may work with patients over time to monitor the progress of new medical devices and care interventions. However, for the biomedical scientist trainee, the links are more tenuous and initial discussions between the service user and academic team require an open mind to scope out the very purpose and importance of considering the broader perspective and how this may relate to working in a laboratory. In these subjects, technology and medicine advance rapidly and it is therefore desirable to establish a sustainable approach to form a continuing and collegiate partnership with a group of service users. The intended outcome is a longer-term relationship, and this is a different approach from what might be considered as patient consultation about the planning and management of services, which might employ the opinions of others on a short-term basis to inform decisions (Peck *et al*, 2002).

Resource and infrastructure

Figure 1 presents all facets of consideration for the establishment of service user involvement within academic programmes and represents the perspective of teams making these adjustments for the first time.

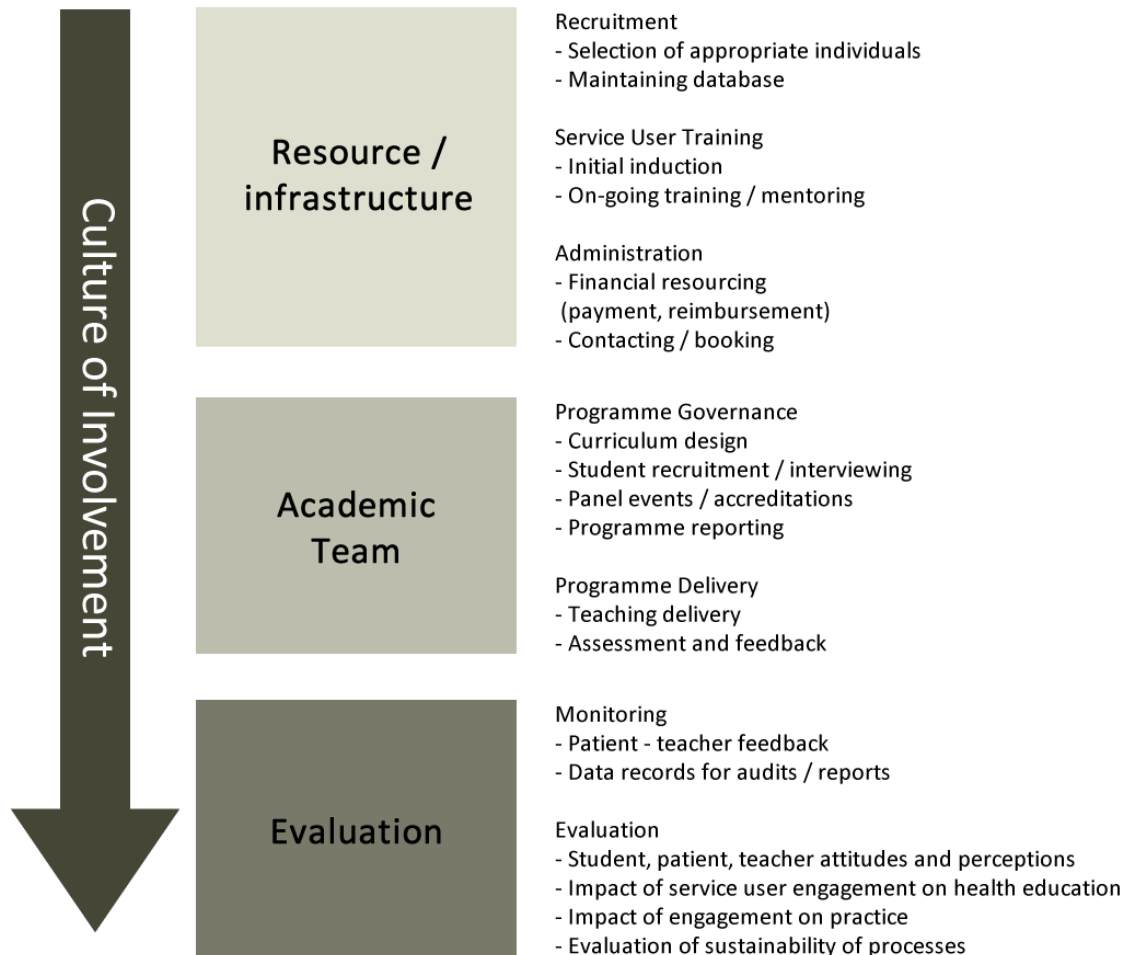


Figure 1. Embedding service user involvement in academic programmes: areas for consideration and responsibility.

At our institution, we are fortunate to have a central ‘Service User and Carer’ office to provide a contact point for volunteer service users and to oversee the process of enrolment (<http://hls.uwe.ac.uk/suci/suci.aspx>). Faculty decision-makers need to consider the financial resourcing of activities and to think about the nature of the ‘contract’. At UWE, to provide flexibility for our service users who may need to balance their volunteering alongside other commitments, they are paid hourly, on a ‘casual claim’ basis (Pollard and Evans, 2013). Other expenses, such as travel and subsistence, are fully reimbursed. Administrative services are required to oversee this work and to support the booking and contacting of patient and public members. For the recruitment and selection of volunteers, we are

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fortunate in our institution that a vibrant community of individuals already exists and can be emailed out from their records, managed centrally by the 'Service User and Carer' team. The selection process needs consideration, for example, if subject-specific teaching is required such as someone with a given condition, then recruitment will need to be more targeted and perhaps enlist the help of local patient groups. The service users will range from those being quite experienced in working with the university on health education programmes to those who are quite new. We therefore offer induction and training, and newer partners are able to shadow those more experienced.

Faculties and academic teams will need to ensure that processes for service user engagement are effective and inclusive and that access to campus buildings is satisfactory. For teams approaching these new modes of working for the first time, the impact on workload is not to be underestimated and, in particular, training and discussions will need to take place for academic staff who will be required to adapt their practices and modify their teaching sessions. Service user involvement represents a cultural shift in working, particularly for the two programmes under consideration in this paper which are traditionally not located in medical or healthcare departments, but under the jurisdiction of physiology or biomedical science subject teams unfamiliar with these approaches.

Considerations for academic teams

Following the models adopted in other health-related courses at our institution, for Healthcare Science we adopted a holistic approach to involving service users in programme governance and teaching delivery as illustrated in Figure 1. Some of these requirements are newly set by the professional bodies (Health and Care Professions Council, 2014) that suggest involvement could include the interviewing and selection of students for programmes; developing teaching approaches; programme planning and development; feedback and assessment; quality assurance, monitoring and evaluation. What is critical at the outset are some open discussions between academics and volunteers to agree what specifically is required, to manage expectations of their involvement and to ensure their views are dealt with in an ethical manner by academic teams. Programme teams will need to carry out evaluations and compile records of their service user engagement for the submission of audits and annual reports, potentially to both the university and professional body.

At our institution, the approach was to identify a number of service users and to hold a series of workshops to scope out a strategy for implementation. We evolved a two-year scheme to phase in service user involvement in areas of programme governance and teaching delivery. Areas of involvement now include: contribution to student interviews and selection; input into curriculum development; participation in the running of teaching sessions and in student feedback; involvement in validations and panel visits. Our longer-term intentions are to involve them in practice settings and to gain their input into quality assurance evaluation as part of annual programme reports.

PPI in Physiological Sciences

Healthcare Science staff within the physiology disciplines directly interact with patients to undertake functional tests, utilising advanced technologies, for example in the study of sleep patterns, heart function, the gastrointestinal tract or sensory systems. In physiology, patients

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might experience the long-term use of devices, such as cardiac pacemakers or the continuous positive airway pressure (CPAP) machine used to manage sleep apnoea. As part of the Physiological Sciences at UWE, patients are involved in the following areas:

- Student recruitment and selection to programmes.
- Programme governance (curriculum development, quality control and professional accreditations and events).
- Delivery of sessions in the classroom or mock clinical settings.
- Assessment and evaluation of students in practice settings.

One such example has been the involvement of service users to provide the voice of a patient simulator within a clinical skills suite. The individual brings his or her own experience and personality to a medical scenario that the student physiologist has to explore. The student interacts with the simulator as if to perform a physiological test such as an ECG. Clinical sessions like this may involve small groups of 6-8 students. The students are videoed and the patient and academic provide feedback at the end of the session. Such approaches provide 'real life' experiences for students that are important precursors to real clinical settings, and developing empathetic approaches will be central to their professional development as budding physiologists. Future clinical sessions aim to integrate students across all academic levels to emulate an even more diverse and professionally-relevant experience.

In other teaching sessions, service users bring their perspectives to classroom settings. (For example, a pacemaker patient discussing the diagnosis of her/his condition and the follow-up care of the device may raise the importance of having clear communication channels and the need for reassurance from the physiologist that the device is working effectively.)

PPI in Life Sciences

Patients and members of the public on the Healthcare Science programmes have participated in classroom activities from the outset, when the first cohort of 'Life Science' students began their studies in 2011. The suite of Life Sciences programmes includes training pathways in microbiology, immunology, cell pathology, blood science and genetics. The occurrence of direct interaction between service users and laboratory scientists is less obvious at first glance, but, owing to technological advances and with the move towards more patient-centred healthcare care and diagnostics, is growing in importance. Technology advancement is driving growth in point-of-care testing (POC), where diagnostic capability is brought to the patient's bedside to offer rapid monitoring of disease conditions. The self-testing market, such as home blood glucose and coagulation monitoring, is also growing as the site of care is shifting from hospital locations to the community. Service users make valuable contributions to areas of research, partly by bringing personal experiences of their condition to inform the development and utility of devices and partly by promoting openness of publicly-funded activities (Oliver, Liabo *et al*, 2014).

For Life Sciences, where direct patient contact is limited in the workplace, staff, students and service users have worked together to define what the rationale is behind having a human-centred approach. Some preliminary activities have included patient involvement in teaching

sessions and in training prior to students' attending their work-based placement, 'pre-placement training'. Discussions have included:

- having a conversation about sample results that may upset students.
- the importance of having perhaps only one chance of getting a blood sample from a patient, so it had better be a good one!
- the development of home diagnostics with service users who have to take their own blood sugar measurements.
- empathising with the patient and family and ensuring the sample is dealt with respectfully and effectively.

The academic teams also considered how to involve patients in assessment and feedback, as part of coursework and examinations. A patient may provide valuable feedback to a student completing a direct observation of practice (DOP), where the student completes a practical task or procedure in the workplace and is assessed by the NHS trainer and possibly even the patient. Drawing on the experiences of the volunteers and holding initial planning discussions may lead to new thinking on how their perspectives can be embedded.

The impact of partnerships to date?

These new three-way partnerships are an enriching experience for all concerned. Evaluations of one of the classroom sessions where patients were invited to participate showed that this had big impact on students' awareness of the importance of service users in their practice development and engendered a new level of respect for a broader range of perspectives. Sessions also prompted students to think about adapting their practices:

"I do have a lot more respect for the patients and their stories"

"Become much more aware of patient and public involvement"

"A patients main concern is feeling forgotten or not truly informed and practitioners need to take more time to communicate with patients"

The service users also gained from the sessions but in different ways - some finding it informative, some simply enjoying the company. From an academic and educational perspective, the opportunities to hear unique stories enriches the student learning experience, and patient input is invaluable in providing relevant and engaging curriculum activities.

For a new team endeavouring to embed service user involvement in programmes, the understanding of new academic requirements and the establishment of new working processes has taken time. The involvement of other healthcare subject disciplines from our institution has been fundamental in providing opportunities to build on existing good practice. Effort is required to build lasting and strong working relationships with a small group of service users in order to implement and maintain the requirements of professional bodies, rather than their merely being part of a one-off consultation. The academic team needs to establish processes for recording service user data and impact for the purpose of auditing and reporting. Figure 1 separates monitoring from the need to evaluate critically the process and experiences in order to identify pitfalls and enhance progress.

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Benefits to both service users and academic teams have been reported elsewhere in relation to healthcare research. In a systematic review, researchers gained a greater understanding of their subject area and the service users became more knowledgeable about their condition. Successful engagement requires preparation and training to ensure service users can participate, and researchers would confirm that there are challenges to find the time and money to make the work effective (Brett *et al*, 2014).

Future direction and evaluation

The nature of academic delivery in health and medical programmes has changed to involve service user perspectives and, for newly-developed Healthcare Science programmes, these requirements are providing fresh challenges. There is little reported in the academic literature regarding service user participation in Healthcare Science, but our experience suggests that patients provide many fresh perspectives that enliven teaching sessions. Technological solutions, such as patient-simulators that are voiced by the public and video recording of student-patient interactions, provide good opportunities for reflection and assessment. Academic teams are working to form new three-way partnerships that are mutually beneficial to all involved: to the students, in gaining new perspectives to enhance their practice; to the academic teams themselves, in being able to deliver patient-centred training to professional standards; to the patients, who undertake these roles out of interest or simply for pleasure.

Our team is planning a programme of research to evaluate the perspectives of those involved - patients, academic staff and students. This will provide insight into the successes and challenges that we face in evolving our educational practices and developing effective processes for managing these partnerships. A fourth group of stake-holders will also be included, namely trainers within the NHS settings, as our future direction will include public and patient involvement also in the clinical practice settings.

Further work is required to understand how to manage effectively these new relationships; as observed previously, different groups do not always recognise each other's expertise (MacPhee *et al*, 2009), so a key question is: How can people with diverse perspectives work effectively together to enjoy fruitful partnerships? As these partnerships grow in number and become established, there are wider questions to be asked: What is the impact of patient involvement on the practising healthcare scientist? What is the wider impact of MSC and the new Healthcare Science curriculum on delivering the goals of enhanced patient choice and a better healthcare experience?

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