

# Collaborative ‘science of science’ needed to ensure research and education make a difference to practice.

Zoë Sheppard, Vanora Hundley, Edwin van Teijlingen and Paul Thompson of Bournemouth University present the challenges of impact in healthcare recently discussed at a symposium held by the Centre of Postgraduate Medical Research and Education at Bournemouth University. Given the imminent results of the Research Excellence Framework 2014, the summarised findings and issues raised on the implementation of impact point to further collaborations needed on the impact agenda in healthcare and beyond.



There has been much recent interest in ‘impact of research’, what it means, why we need it, and how we measure it. Much of this has focused on academic research, driven by the need to include impact case studies within submissions to the 2014 Research Excellence Framework (REF). However, the impact of education and practice is also of significant importance. In October 2014 the Centre of Postgraduate Medical Research and Education hosted a symposium exploring issues around impact. The event brought together academics, researchers, and clinicians working in healthcare to hear from a range of presenters. A combination of local and national speakers shared their views on impact in their professional and disciplinary areas.

## Reflections on the challenges of impact

The symposium raised many challenges of impact (Table 1) and some of these key challenges are discussed below.

**Table 1: Summary of challenges around impact and ways going forward**

Challenges	Way forward
Problematic definitions	Awareness raising and cultural change
Differences in rationale	Make impact a strategic priority
Difficulty in determining attribution	Audit trail and retrospective appraisal of impact
Lengthy time lags between research findings and implementation	Collaborative working with clinicians and policy makers
Time taken for reporting	Open access movement
Lack of funding	Cost impact work into grant applications
Difficulties in prioritising	Involve the public and service users
The role of marketing	Team working with good communicators

## What do we mean by impact?

As all the speakers at the symposium presented their perspectives on impact, it became very clear that the definition of impact was problematic and that it meant different things to different people – the public, the funder, the University, the provider, the student, and the medical educator. For example, Trish Greenhalgh, one of the keynote speakers, noted that researchers saw impact based around requirements for the REF, as well as the requirements for funding organisations. In contrast, the view of the educators of junior doctors, presented by Phil

Rushton, was that we should identify the impact of teaching and learning on students and organisations and subsequently patients. Finally, practitioners saw impact in terms of implementation of National Institute for Health and Care Excellence (NICE) guidelines and infrastructure (e.g. training, facilities, and cost), a view put forward by Paul Lear. Similarly, the rationale for measuring impact was different, ranging from a mechanism for deciding allocation of funds in the REF through to analysis, advocacy, and accountability for the tax paying public, as presented by [Jonathan Grant](#), the other keynote speaker. Despite these differences, making sure that research and education makes a difference to practice was common to all.

### Time lag

One of the concerns highlighted during the symposium was the considerable time lag between research being conducted and findings being implemented into practice, the difference [being estimated at 17 years on average](#). Indeed, the [qualitative case study of the bowel cancer test](#) developed in 1967 presented by Jonathan Grant was not shown to make a health gain until 2010 onwards. Conference participants remarked that this was unacceptable and that one of the many challenges of the impact agenda is to speed up implementation and increase the value on return. Reassuringly, the symposium showcased several excellent examples of research that is making an immediate difference e.g. at a local district general hospital as presented by the Medical Director Paul Lear, and from an innovative matched funded studentship to Edd Carlton between the University and a local NHS Trust firmly making sure research goes straight into practice.



Image credit: [Pikiwikisrael](#), Wikimedia [Creative Commons Attribution 2.5 Generic](#)

### Reporting impact

Another challenge raised during the symposium was the balance between reporting and making an impact. Edwin van Teijlingen highlighted one retrospective approach taken by Bournemouth University's School of Health and Social Care when he highlighted the breastfeeding case study submitted to REF2014. Rather than retrospectively building case studies, as many universities were forced to do for the REF2014 submission, impact strategies should be built in and costed into grant applications. Indeed, another barrier mentioned was lack of funding as research grants are typically under costed in this area in both time and resource. Although systems for reporting are being implemented (e.g. [ResearchFish](#)), the time taken to report was perceived as a barrier to impact work and noted by Natalie Carter, Head of Research Liaison and Evaluation at Arthritis Research UK. When faced with such trade-offs, an interesting point about prioritisation was made and whether it was best to focus on quantity or quality of impact. Further potential tensions were raised between evaluation and innovation as well as the role of 'clever marketing'.

## Lessons learnt moving forward

Although the symposium raised many challenges, it also usefully highlighted some of the initiatives that could be taken forward to maximise impact in the future (Table 1). Awareness raising and a cultural shift towards impact will help an understanding of what is meant by impact. No doubt the future REF and potential internationalisation may motivate universities to make impact a strategic priority with infrastructure and partnerships.

One of the most important lessons was the need for collaborative working in many different ways. Simon Denegri, Chair of INVOLVE, noted that members of the public and service users need to be even more involved, from 'willingness' to being 'active' in research. Indeed, the [Breaking Boundaries](#) review will be emphasising that the future lies in co-production of knowledge with service users. Furthermore, service users should assist with identifying outcomes (e.g. [OMERACT](#) and [COMET](#)) and setting priorities for research (e.g. [James Lind Alliance](#)). It was agreed that involving service users will mean that research is relevant to them and more likely to make a difference in practice.

The need to involve service users at the reporting stage was also highlighted by Simon Denegri. The challenge of poor reporting noted above may be addressed by involving members of the public and service users as reviewers of research as well as on editorial boards of journals. The open access movement is intended to make research accessible to people who need it (e.g. patients, students, and researchers in developing countries) meaning it will more likely be incorporated into education, learning, and practice. Indeed, there is a forthcoming [patient and public involvement journal](#) soon to be launched which will be open access.

Edwin van Teijlingen also reminded the audience that for the REF not every piece of research has to have a measurable impact as one impact case study was required for every ten academics submitted to the REF. This is to ensure that universities do undertake speculative, theoretical, or 'blue sky' research that might not lead to any immediate useful applications.

The team approach is also useful in the communicating and sharing of information so that those with good communication skills can be utilised to get findings out. It was clear that academics and clinicians in practice need each other in order to make research translational and so they should not remain in their isolated silos. In order to implement research into practice, decision makers and policy makers also need to be on research teams. Indeed a team approach may influence the disciplines and hence the target Units of Assessment submitted to in the next REF.

## Conclusion

As noted by Jonathan Grant, one of the keynote speakers, the symposium made it clear that a 'science of science' is needed to understand what works in terms of impact (e.g. implementation science). Despite the many challenges, the impact agenda brings yet more argument for a collaborative team approach. Another of the keynote speakers, Trish Greenhalgh, presented a call for action around supplementing 'high church' academic research with clinically led research, contract research, curiosity driven research that is co-produced. The symposium importantly raised awareness of these issues and is hopefully a step forward towards raising the impact agenda for academics, educationalists, and clinicians working in the healthcare field. We welcome yet more debate around these issues to further again promote awareness.

*Acknowledgements: The authors would like to thank the speakers and panel facilitators at the symposium (Tim Battcock, Keith Brown, Edward Carlton, Natalie Carter, Simon Denegri, John Fletcher, Jonathan Grant, Trish Greenhalgh, Paul Lear, and Phil Rushton) for sharing their views, as well as the participants, which have formed the basis of this discussion piece. Thanks also to Lisa Gale for reading an early draft.*

*Note: This article gives the views of the authors, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our [Comments Policy](#) if you have any concerns on posting a comment below.*

## About the Authors

**Zoë Sheppard** is a Research Fellow in Research Methods at Bournemouth University

**Vanora Hundley** is Deputy Dean for Research and Professional Practice at Bournemouth University  
**Edwin van Teijlingen** is Professor of Maternal and Perinatal Health Research at Bournemouth University  
**Paul Thompson** is Director of the Centre of Postgraduate Medical Research and Education at Bournemouth University.

- Copyright 2011 LSE Impact of Social Sciences