Postgraduate students' perception of research ethics training: a qualitative study

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Abstract

Unethical practices undermine research findings, and destroy societal trust in research and researchers. Formal ethics training for researchers is widely supported, and has been adopted by many organisations, including the NHS. However, a wide variation in what constitutes ethics training is apparent. This paper outlines a study that explored the perceptions of research ethics training amongst postgraduate nursing students undertaking research on human subjects. A combination of six focus groups and four one-to-one interviews were undertaken. Three significant themes emerged, each representing different aspects of the teaching process. First, time and timeliness, underlining the importance of the timing of training, but with the need for ongoing access to resources. Second, content and delivery, where the differences between the principles and processes, and the mechanisms required to address both aspects, was raised. Finally, assessment, where the difficulties of useful assessment were discussed. Participants emphasised the need to differentiate between the principles and processes of ethics teaching. This paper argues that both aspects require different approaches to disseminating information, with timing of access to teaching and resources requiring critical consideration.

Keywords

research training; ethics; nursing; postgraduates; curriculum development

Introduction

Scientific research provides the underpinning of progress in our society. However, unethical practices resulting in poor research processes, risk undermining findings and loss of trust in scientists. High profile cases of research misconduct have long lasting consequences on society (El-Sharkawi, 2018). Examples such as the Andrew Wakefield MMR scandal continue to negatively impact on health related decision making, despite overwhelming evidence highlighting unethical practices and subsequent rebuttal of the findings (Hilton et al., 2009).

In an attempt to address real or potential research misconduct or fraud, wide support has been expressed for formal ethical training programmes for researchers (Antes, 2014; Rozmus et al., 2015). However, significant variations in goals and curriculum have been highlighted, with learning objectives seeking to address aspects from moral citizenship through to regurgitation of codes of conduct (Kalichman, 2014). Not only have variations in content been identified, but also difference in the mechanisms of delivery, and methods of evaluating instruction. Literature relating specifically to curriculum design for research ethics and governance training is particularly limited, and reports disparate or ambiguous views on key aspects (Trotman et al., 2013; Löfström et al., 2015). Much of the variation appears to stem from the discourse around the nature of education in this area (Shephard, 2015), and this is particularly difficult to address, as we are attempting to teach values, with the requirement that students act and behave in a pre-determined manner, whilst avoiding engaging in indoctrination (Bloom, 1971).

Recent systematic reviews have sought to identify aspects of good practice in research ethics training (Watts et al., 2017; Todd et al., 2017). Whilst there is variability in the strength of the evidence available, some themes are apparent. In particular the difficulties associated with instructional learning methods (such as lectures), and similarly the ineffectiveness of passive teaching (Wiles et al., 2016). However, the mechanisms through which evaluation of teaching is undertaken also vary, making comparisons across methods of course instruction difficult (Todd et al., 2017). These findings are perhaps of secondary importance, when compared to the huge variations identified in the learning objectives themselves (Wiles et al., 2016). These variations suggest a need to take a step back, and to look more broadly at what constitutes an effective programme. This paper is a report on a project that sought to ground the discussion around ethics training in the realities of postgraduate (PG) students on a nursing programme. The overall aim of the project was to explore the perceptions of research ethics training among PG students undertaking research on human subjects.

Methodology

Debates about the nature of the social world and what can be known about it (ontology), the nature of knowledge and how it can be acquired (epistemology), and how we can study it (methodology) underpin the different approaches adopted by researchers (Ritchie et al., 2014). The choice of one approach over another is directed, not only by the philosophical beliefs and understanding of the researcher but also, by the need for research methods and strategies to fit the context of the research (Mason,

2002; Ritchie et al., 2014; Seale, 2010; Seale and Silverman, 1997). For the purpose of this study, a qualitative methodology was employed. The strength of qualitative studies lies in their ability to highlight a range of questions and generate insights far removed from testing normative hypotheses (Mason, 2002). In addition, it allows for handling in-depth subjective insights, whilst concentrating on participants' perspectives, understandings, and subjective views (Sulmasy and Sugarman, 2010).

A combination of semi-structured interviews and focus groups were conducted with PG students. With consent, the discussions were recorded, transcribed and anonymised verbatim: appropriate ethical approvals were sought and granted by the University Research Ethics committee. Whilst interview data may be more varied (Coenen et al., 2012), and potentially more effective in eliciting views around sensitive issues, focus groups enable generation of discussion that may otherwise be lost (Wutich et al., 2009). The decision to collate data through focus group or interview was partially pragmatic, but also took into consideration participant preference. Whilst, potentially, the discussion around a research ethics curriculum may not be construed as a particularly sensitive area, opening oneself up to critique by peers is both difficult and potentially intimidating to students. At this point, it should be stressed that appropriate PG student interns were recruited to carry out the data collection. The interns were representative of the wider university as they were based in different faculties, with some holding cross faculty studentships. They were supported and guided by a steering group consisting of key stakeholders and experts. Whilst the interns helped identify potential participants within

their own faculty, the focus groups were led by an intern unknown to the participants.

Six focus groups were facilitated with PG students from across the university. In addition, four interviews were conducted. There were a total of 42 participants, with between four and 12 students involved in each focus group.

An inductive constant comparative approach of analysis, derived from the 'grounded theory' approach (Glaser and Strauss, 2012) was applied to the data. In practice, this meant that data analysis was undertaken concurrently with data collection. The benefit of collecting and analysing data simultaneously was that emergent as well as anticipated themes were identified, with the opportunity to incorporate further exploration of the former. NVivo was used to help manage the data.

Findings
Time and timeliness
The first theme related to the timing and timeliness of the training offered. Where ethics training was a mandatory part of progressing through studies, students found the rigidity of the system to be unresponsive to their changing needs:

> During my first year here I attended seminars about how to write the ethics [form] and for the NHS as well. If I can say something, it's that you don't get the information needed until writing, so even though I did that training it was a year ago so now my knowledge is back to zero.

This factor contributed to the reliance of students on supervisors for support:

> Yeah well [NAME] is my supervisor. They've got so much experience with ethics. That made

the world of difference 'cause they were able to direct me through without any huge dramas.

Where supervisors were experienced in navigating the ethics and governance processes, students felt supported and were able to move on without experiencing many problems. However, as highlighted by both students and staff alike, many supervisors lack that experience, particularly when dealing with the added complexities of the NHS processes:

I ended up doing most of it myself as my supervisor couldn't advise about the new processes. The available information is minimal, the algorithm that is associated with it is terrible and if you ask anyone for advice they will give you the same advice – ask someone else!

This was perceived as particularly problematic when students had process queries. Support was often difficult to access, and it took time to get a response through the external agencies:

Navigating these things or even having a contact point … would be of such use because it's 'one word answers' that you need half the time and when you're dealing with an organisation as complex and as big as the NHS, 'one word answers' take four weeks.

For students with pressing deadlines, this was frustrating, and left them feeling powerless:

It's just so frustrating! We have these deadlines but they're actually out of our control. I mean there is only so much planning you can do, then you have to work out how long is a piece of string?

Content and delivery

Many of the students felt that a 'targeted' approach to training was required, with the supervisor key to accessing the required knowledge. Whilst a recognised approach to assessing research ethics knowledge, the 'learning the rules' approach was heavily criticised by students:

…it felt more like it was training for writing an essay rather than practical research. It was sort of being able to recall parts of the Declaration of Helsinki or whatever, which is not terribly beneficial for what you're researching. But, thankfully [NAME] is actually one of my supervisors so she has helped quite a lot there.

For those students undertaking research projects within the NHS, the training process was perceived as particularly burdensome, with requirements between the university and the NHS misaligned:

Quite a few of us have to do NHS ethics as well so it kind of makes sense to have both, to have something like the GCP [Good Clinical Practice] training where [university] ethics also covers NHS ethics. So you don't have to do the process twice.

This added to the sense that the training was no more than a bureaucratic tick box exercise:

All we do is use it as a tick exercise, we just answer the questions. And it's the same thing with the NHS, they have a lot of training but you just perceive it as an exercise you have to do in order to go forward.

Some students suggested that the training was essentially a mechanism to remove liability from the organisation onto the individual student.

I sometimes feel like we are told things because they have to cover their own backs. By telling us

like, we had Information Governance last year, they were telling us 'oh you can't do this' just so if it did happen they could say 'well we told you'.

However, when probed, students agreed that many of the problems in training had arisen as a result of trying to teach ethics through reducing a dynamic process to something static:

….ethical training – I mean even the word training is potentially problematic – but inputs, on ethics, unfortunately sometimes are highly mechanistic and suggest that there's one right approach if you're doing this, one right approach if you're doing that, you've solved the problems if you address this, this and this…

Whilst students alike discussed the potential for the ethical review process to provide a dynamic learning opportunity, in practice this frequently failed to materialise:

It's very rare you get an ethics application accepted first time round. It would be great to have the chance to discuss the decision and the comments. If you did, you'd then understand the reason why (the comments were made).

The distancing of the decision-making process from the applicant further increased the sense that the process was a bureaucratic tick box exercise. Students who perceived their application to be part of learning process expressed disappointment at the lack of feedback and engagement:

…it seems ironic at the end of your approval – and it's literally just an email saying this has been approved. I've just submitted like 15 pages of documentation and the importance of it is paramount but all you have to show for it – you don't even have a PDF, you don't have a form that's signed – literally just an email!

Whilst some students felt that ethics training and approvals were part of the 'rite of

passage' to a PhD, overall they agreed that for ethics teaching to be meaningful, it needed to be applied to a project:

These are the reasons why I believe it shouldn't be training that you have to pass. In order to pass you have to answer specific questions for specific problems – but we want answers to our own questions.

Assessment

As highlighted in the literature, wide variation exists across universities in relation to ethics training programmes (Shephard et al., 2015). Owing to the variety of experiences of the student body, with regards to undergraduate (UG) or Masters qualifications from other universities, insights into how ethics training was approached across the UK was raised. The focus groups were a particularly useful mechanism to generate discussions around the assessment. As with much of the discussion around content, many of the ideas came back to the need to "make it real":

…we had to write an ethics proposal and go and present it in front of a board of lecturers. Then you had to be assessed in things like that – on that, I found that really useful.

As highlighted in the previous section, students were keen to engage with the process, with their application used as both a learning tool, and finally demonstration of their understanding. This could either be achieved by attending the ethics committee (as is current practice within the NHS), or by running 'ethics clinics':

I think if the University set some dates for ethics so you can go and say 'I've written this application do you have any comments?' If this happened once a week or twice a month it would

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*be useful, even if only three people attend, you
might take experience one to another.*

However, students unanimously felt that the
responsibility for learning was theirs, and
whilst a collection of online resources would
be beneficial, online assessment was thought
to be pointless:

*Rather than really engaging in the process. I feel
like maybe we could improve it by being a bit
more hands on and, like, talking through things
with our supervisors more rather than just being
told to do an online course.*

Discussion

Universities play an essential role as
guardians to research integrity. They are
authorised to undertake the role of
'sponsor', where responsibility for
instigation and management of studies is
formalised. As part of this role, universities
are tasked with ensuring staff and students
have a clear understanding of the expected
rigour and integrity of their research.
Ensuring access to useable resources,
engaging teaching methods, and formalised
assessment, along with evidencing of
engagement and completion, is therefore a
basic requirement.

However, with the growth of translational
and collaborative research, this formal role
is increasingly shared between key
stakeholders. Health service research is one
clear example. Here, universities and the
NHS both enforce their requirements for
training and assessment. This can result in
frustrations for researchers where they feel
that they are required to jump two sets of
hoops. Until the publication of the most
recent UK Policy Framework for Health
and Social Care Research (Health Research
Authority, 2017), all researchers undertaking

any form of research within the NHS were
expected to complete a Good Clinical
Practice (GCP) certificate. The training is
standardised across the UK, with the online
version managed and monitored by the
National Institute for Health Research
(NIHR). This training incorporates aspects
relating to the most complex and risky
research including multicentre randomised
drug trials. Researchers answer detailed
questions on management of the research,
participants and medicines. Until
publication of the updated version, this
training was required irrespective of what
type of research was being undertaken, so
was as relevant for a multicentre Clinical
Trial of an Investigational Medicinal
Product (CTIMP) as it was for a staff
survey. This lack of differentiation in
training needs is now being addressed in the
new framework, where Trusts are advised to
assess the risk of the study and train staff
accordingly. However, policy has not yet
quite caught up and, in practice, this training
is still required to access a research passport.

These contextual requirements must be
taken into consideration when creating any
form of university assessment policy. Some
of our students will still be obliged to
complete the NIHR online GCP training.
Despite this, the essence of ethics is often
missed and, as students have highlighted,
this form of question and answer training is
generally unhelpful. The question therefore
remains as to what would be perceived as an
effective way of teaching and assessing
competence.

Findings from this study suggest that
students perceive a need to differentiate
between 'teaching of the principles' and
'processes of ethics'. Whilst the former may
inform the latter, timely access to
information pertaining to both parts

separately, is important. This perhaps reflects the variability of learning objectives highlighted in research ethics teaching within the literature (Kalichman, 2014), with courses reflective of the demands of students at a particular time. Participants highlighted support in the application of the principles of research ethics to real life scenarios as a good learning experience. Similarly, the evidence available suggests that this form of teaching is more effective in teaching complex concepts such as ethical decision-making (Watts et al., 2017; Todd et al., 2017). However, when faced with navigating ethics processes, students sought practical commentaries rather than discursive sessions to support them with their application. Access to knowledgeable supervisory support was key. Where supervisors were inexperienced, or out of date with the fast moving changes to process, students were left frustrated and at a loss. Whilst most PhD students were attached to a research active team, this was not always the case for the Masters level students. With tight time deadlines, delays in getting approvals were even more acutely felt. This is an aspect that needs consideration alongside the validation of dissertation or research-based modules.

This study has shown that students want to be engaged in ethics training. However, it is clear that there are a number of tensions, including a sense of frustration that research ethics has become a process-driven procedure. Re-engaging in more open discussions and scenario-based teaching, will help support student development. Current literature suggests that the principles behind ethics are often ignored in order to reduce more obvious wrongdoings (Cameron and O'Leary, 2015); as lecturers and researchers, we need to safeguard the legitimacy of our work.

Recommendations

This study has highlighted a number of points that merit consideration in the future development of the Research Ethics and Governance curriculum.

o Currently the principles and processes of research ethics and governance are lumped together. However, it is clear that the learning needs of students in relation to the two aspects are very different; 'training' needs to be separated.

o Supervisors are a primary resource for PG students. Ethics process training should be considered as an essential part of their PDP (personal development plans).

o Resources, in particular simple online process flow charts, need to be created to assist supervisors and students. Easy signposting, with minimal 'additional' information would be beneficial so that the complexities of the processes are made as slick as possible.

o Rotation of supervisors onto the university or faculty ethics committee needs to be given consideration. This will aid supervisor development and ensure they have the opportunity to engage in ethical discussions around ethics principles rather than purely process. This learning would inform subsequent supervision.

o PG students could use their projects and any dilemmas arising, to inform discussions with UG students. The use of 'real life' scenarios for teaching/learning ethics principles was a theme raised throughout our study.

o Whilst online assessment was perceived as a tick box exercise by students, university liability may make discarding this form of assessment difficult.

Nonetheless, the content of the assessment needs reassessing, with a core set of process questions created. Whilst the principles of ethics are equally important, it has become clear that an online test cannot assess this element.

o The implementation of ethics clinics needs consideration. Staffed by experienced researches and students from different faculties, PG and potentially UG students undertaking primary research, this could serve as a useful hub to discuss ethical issues or any other principles arising from individual projects.
o Work needs to be undertaken in relation to the standardisation of responses to ethics applications. Suggestions include the use of standardised operating procedures (SOPs).

Conclusion

The importance of research ethics training and assessment cannot be underestimated. However, the sense that ethical approval had developed into a tick box exercise was widely expressed. Participants highlighted a clear need to differentiate between the principles and processes of ethics teaching and training. However, different approaches to disseminating information and timing of access to teaching and resources require critical consideration. A series of recommendations have been identified that could be used to inform training and teaching practices.

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