**Article Title: Philosophy Doctorate or Taught Doctorate: what is the way forward?**

**Authors**

Sharon Rees, London South Bank University, School of Health and Social Care

[sharon.rees@lsbu.ac.uk](mailto:Sharon.rees@lsbu.ac.uk)

Karen Ousey, University of Huddersfield, School of Human and Health Sciences and Institute of Skin Integrity and Infection Prevention

[k.j.ousey@hud.ac.uk](mailto:k.j.ousey@hud.ac.uk)

Kenneth Koo, Central Manchester Foundation Trust, Department of Vascular Surgery

[kenneth.koo@cmft.nhs.uk](mailto:kenneth.koo@cmft.nhs.uk)

Naseer Ahmad, Central Manchester Foundation Trust, Department of Vascular Surgery

naseer.ahmad@cmft.nhs.uk

Frank L Bowling, University of Manchester, Faculty of Medical & Human Sciences

[frank.bowling@manchester.ac.uk](mailto:frank.bowling@manchester.ac.uk)

**Correspondence**

Sharon Rees, London South Bank University, School of Health and Social Care, 103 Borough Road, London SE1 0AA

[sharon.rees@lsbu.ac.uk](mailto:sharon.rees@lsbu.ac.uk)

**Key Words**

Ph.D., professional doctorate, clinical education, advanced education

**Key Points**

The modern healthcare workforce needs advanced skills.

One route to this is by Doctoral level education.

There are several routes to attainment of a Doctoral degree.

There is growing uptake of professional doctorates, but there remains a shortage of Doctoral qualified healthcare professionals.

**Abstract**

Doctoral level study is increasingly popular for clinicians who wish to advance their clinical, research and academic career pathways. A range of alternatives to the traditional Ph.D. is now well-established. This article aims to outline the different approaches and discuss some advantages and drawbacks of doctoral level post-graduate study. By comparing the various doctoral programmes, the authors seek to clarify the issues for clinicians who may wish to embark on a future doctorate. Primary clinical or medical degrees are not discussed.

**Philosophy Doctorate or Taught Doctorate: what is the way forward?**

This paper explores the differences between Philosophy Doctorates (Ph.D.) and Professional/vocational Doctorate programmes, within UK profession-specific health disciplines, e.g. Doctor in Clinical Practice (DClinP), Doctor of Nursing Practice (DNP), Doctor in Pharmacy (DPharm). Three areas are considered:

* the programmes of study,
* differences in application
* recognition and status of the two awards.

The constantly changing environment of academia and the health service has moved the levels of undergraduate teaching from diplomas to degrees and, more recently, to postgraduate qualifications, including those required for study at Doctoral level. The Doctoral degree is the highest level of post-graduate study in the World and there is a growing tendency for clinical practitioners in higher roles of the National Health Service to complete secondary (Masters) or tertiary Doctoral degrees. In 2010, Medical Practitioners formed the second highest occupation for professionals holding a doctorate (11% of the employment share) (Centre for Economic Performance, 2011), although this information is not broken down into individual health professions.

Doctoral study in particular, has traditionally been by research only, with a purely academic focus. This may not be fully relevant for those professionals who want to develop a clinical or corporate based career, rather than preparing for an academic position. Improving the relevance of research degrees appears to follow logically, and has resulted in a number of alternative taught programmes. These include study units which prepare students for the high level of academic study of the Ph.D., but may also include relevant applied topics. There is often confusion between the two higher degree programmes, and which would best enhance the career potential and professional development of the post-graduate practitioner.

The Ph.D. in the form of an advanced dissertation began in Germany at the University of Berlin in the early part of the 19th century. The first American University to award a Ph.D. was Yale University in 1861 (Schatte, 1977). In the United Kingdom, the first Ph.D. was introduced in 1917 by the University of Oxford. However higher Doctorates in science and literature *(DSc.; DLit)* were also offered by universities such as London and Edinburgh, at this time (Simpson 1983). The designation of Ph.D. arises from the Greek ‘philo’ (to love) and ‘sophy‘, meaning the love of or pursuit of wisdom, rather than related to philosophical studies. It is noteworthy that Oxford denote all their Doctoral degrees as a Doctor of Philosophy, awarding a DPhil, rather than a Ph.D.

Most developed countries and some developing countries e.g Indonesia, offer Ph.D.’s. Globally, the highest number of Ph.D. graduates are from the United States (US), with Germany second and the UK third. Lowest in the top fifteen is South Africa (OECD 2016). While the basic PhD structure is similar, there are differences in the examination process. For example, in Scandanavia, a thesis can be defended by delivering a lecture, as well as in front of a panel. In the Antipodes, the geographical shortage of external experts for oral examinations has caused problems. Therefore, traditionally the Ph.D. thesis has been considered by 2-3 independent examiners who write a report and make an outcome recommendation (Kiley et al,2018). It is noteworthy that more Universities in New Zealand are striving to introduce an oral examination, following research emphasising its value (Kiley 2009; Crossouard 2011).

All UK universities offer a Ph.D. qualification, but not all offer Professional Doctorates. Nonetheless, all 4 countries in the UK have some Universities which offer professional doctoral programmes. Professional Doctorates (PDs) were designed to meet outcomes for the contemporary workplace (Table 1). They originated in North America during the 1930s (Ketefian et al 2005), and were first offered in the UK in the early 1990s (UKCGE 2010). Initially, some of the subjects offered were in education, clinical psychology and engineering, but the programmes have since expanded into virtually all disciplines. Nonetheless, the largest uptake regarding numbers undertaking PDs are concentrated in four fields; health,education, business and social care (HEFCE 2016).

**Programmes of Study**

**Doctor of Philosophy (Ph.D./PhD/DPhil)**

A Ph.D. in medical disciplines traditionally involves four years full time or six to seven years part time study and the researcher examines a subject in depth by carrying out empirical research, including data collection, analysis and synthesis. This may be an individual journey, exploring a subject alone, or undertaken as part of a research team. Healthcare professionals and some academics can opt for the part-time pathway, allowing them to continue in their professional role, progress their career and maintain a salary.

The mode of entry may follow directly from an undergraduate or post-graduate degree, or be initiated at a later career stage. The award reflects independent study, concluding in the submission of a thesis which has demonstrated an original contribution to knowledge. This may be a new application of existing knowledge, or the development of innovative ideas or approaches.

In most countries, completion of the study is examined through submission of a thesis and a viva voce (oral) examination (see previous paragraph for some geographical differences) There is normally no taught element in a Ph.D. programme, but some institutions will expect students to demonstrate that they can meet the required research standards and if necessary, undertake study to ensure this. There may or may not be formal examinations in the relevant subjects, which must be passed in order to achieve the Ph.D.

Some elements of supported learning in how to be a researcher is becoming the main approach in most universities throughout the world. This allows for students to discuss and negotiate their programmes with their respective institutions. However, there is variation in the level of support and research skills learning. There has also been criticism of the traditional pathway as stagnant, as well as of the examination with students found ill-prepared for the rigours of a viva style exam (Gould 2016). The call for more transferable skills to be integrated into Doctoral study goes back to The Bologna Declaration (1999) recommendations, which have brought about a gradual shift

The traditional PhD has experienced some diversification, now allowing a Ph.D. award via publication or professional practice routes. A PhD by publication/professional practice requires the submission of a portfolio of work, containing published papers, which have a collective theme. Previously published articles are used to demonstrate how they have advanced new knowledge in a given field. The papers have to have been published in high quality peer reviewed journals. A summary statement describing the genesis and cohesion of the submitted papers, as well as a critical analysis of them is required. The statement also draws out the contribution to the field and demonstrates how this is original work. This can be from 5000 to 10,000 words in length, depending on the institution.

Clearly there are some challenges with this, for example collaborative projects and ascertaining the level of authorial ownership from multi-authored papers. The other authors are required to sign statements confirming the respective contributions. There is also a route to complete a PhD by concurrent publication, allowing planning of the body of work in advance, bringing cohesion to the themes and strategic targeting of publication placement. Agreeing authorial contributions in advance may help obviate some of the issues for the retrospective route.

**Professional Doctorate**

The Professional/vocational Doctorate (taught doctorate) comprises three or four years’ full time or five to seven years’ part time study in a particular discipline. In the health field, this is sometimes called a Clinical Doctorate. Aside from the Doctorate in Clinical Psychology (DClinPsy), which has a significant placement component, full-time study is unusual in the health professions. Students complete one or two years of a taught programme of study, where credits are accumulated, prior to undertaking the research and thesis stage of the programme. Credits are awarded for passing written/oral examinations or for the submission of assignments on designated topics. Group registration on such courses means that there is likely to be a student community, which can provide some teamwork and support. The HEFCE report (2016) on the provision of PDs in England states that ‘cohort-based’ nature of studying is reported by PD students as being of particular value.

This pathway is typically used by those with significant professional experience and/or qualifications, such as optometrists, nurses, pharmacists or podiatrists. The required level of academic entry varies, but is usually a post-graduate qualification, for example a Master’s degree (McCay 2010). The thesis and research element of the Professional Doctorate will have the depth, but not necessarily the breadth, of a traditional Ph.D. since part of the study programme is used for the taught element. Nonetheless, students are still expected to submit a thesis and to defend it through a viva voce examination (Table 2).

The purpose of universities in providing taught programmes, is to deliver a qualification which is equal in status and personal challenge to a Ph.D., but is focussed on developing the skills and knowledge appropriate to a professional, clinical or industry-based career, rather than an academic one (McCay, 2010). This more structured approach facilitates the acquisition of specific skills at an advanced level, such as complex aspects of patient care or leadership in healthcare practice

The research undertaken is expected to have an impact on professional practice or procedures (HEFCE 2016). There is usually organisational support, with the research elements integrated into the workplace. Such professional development would appear to resonate with establishing senior professional roles, such as for Consultant Nurses. However, the HEFCE report (2016) indicates relatively weak employer support in the healthcare sector, assigning this to ongoing budget constraints. Self-funded candidates are a growing trend (HEFCE 2016).

**Differences in Application**

The development of alternatives to the Ph.D. indicates a growth in demand for professionally-based higher degrees. This would imply recognition by healthcare professionals, of the importance of continuing higher-level learning and development which is applicable to the workplace. It is also a product of the rising emphasis in educational ‘drivers’ such as competencies, skills and training, which require validation by qualifications up to the highest level.

Advanced nursing roles and more Consultant level positions for all clinicians, has seen increased demand for advanced education and research skills. However, there are no statistics available for how many of a given profession have a Doctorate, including for nurses. There is certainly a range of options, from a Ph.D. by research or publication, to Doctorates in nursing, clinical or professional practice, leadership, education or management, to name but a few.

Clearly, it will be necessary for health professionals with Ph.Ds to be in academic roles, for supervision of the up and coming scholars. Indeed, the Willis Report (Willis Commission 2012) points out that nursing scholarship must be encouraged, as nursing assumes an expanding role in contributing to research and evidence-based practice. It is highlighted in the report that more nursing academics are needed to support the future provision and development of nursing education (Willis Commission 2012).

In order to undertake research programmes and receive funding, the ethical proposal and grant application paperwork require a principal investigator (PI), who takes overarching responsibility for the research. In the majority of cases, the criteria for the PI is that of a Doctoral level qualification. Some institutions, such as the Medical Research Council state they ‘expect’ this to be a Ph.D. (MRC Funding Guidance 2019). The European Research Council will accept a Ph.D. or ‘equivalent’ (ERC 2018). This may be seen as an additional advantage of a Ph.D., as successful bids for research grants are a major income stream for Universities.

The variety of taught doctorates in health disciplines has diversified to include the Doctorate in Nursing or Nursing Practice/Science (DN/DNP), Doctorate of Podiatric Medicine (DPM), and the Doctorate in Pharmacy (DPharm), with the Doctorate in Clinical Practice (DClinP) and in Professional Practice (DProf) available to all health and social care professionals (Table 1). Clearly, however, it is important in the health care sector that patients and clinicians alike must be in no doubt whether a clinician holds an academic doctorate i.e. a Ph.D., or a professional doctorate/vocational in his/her own field, such as medicine, pharmacy, podiatry or

optometry.

The popularity of the professional doctoral degree arises from its ability to confer professional and academic recognition, while meeting specific professional needs. This seems attractive on many levels, benefiting both individuals and healthcare institutions and facilitating promotions. For example, an aspiring Consultant Podiatrist may be expected to have completed, or be studying, for such a post-graduate degree. In Clinical Psychology, the Doctoral degree is the prerequisite qualification for entry.

The UK healthcare vision is that Doctoral training would address the learning needs of health care professionals, arguably more than a Ph.D. The application of Doctoral level study to “real world” problems is congruent with improving health and system outcomes, especially, perhaps, in enabling the development of sound critical analysis. There can also be significant commercial advantages to such applied research, for example in piloting new equipment and techniques. Nonetheless, outside of the UK, the PD has not achieved the recognition or status of the Ph.D. in the majority of countries (see Table 2).

**Table 1.**Example programmes of Doctoral study undertaken by health professionals

|  |  |  |
| --- | --- | --- |
| Doctoral Programme | Vocation/Profession | Post-nominal Title/letters |
| Health Studies  Nursing Practice | Health Profession  (any including managers)  Professional Practice  Nurses | DHS  DProf  DNP/DNursing |
| Clinical Practice | Health and Social Care (any) | DClinP |
| Podiatric Medicine | Podiatrist | DPM |
| Pharmacy | Pharmacy | DPharm |
| Clinical Psychology | Psychology (may have alternative undergraduate degree) | ClinPsyD |
| Public Health | Health/Health Management | DrPH/DPH |
| Clinical Dentistry | Dentist | DClinDent |

**Table 2** Comparisons between pathways of Doctoral study

|  |  |  |
| --- | --- | --- |
|  | Professional/Vocational Doctorate | Ph.D. |
| Focus | Professional qualification | Academic and/or research |
| Structure | Mandatory taught components | Little/no taught elements |
| Thesis  (excluding Medicine & Dentistry) | Advances professional practice in your field | Advance theory and knowledge in specific area |
| Length of Thesis (words) | 40,000-60,000 | 60,000-80,000 |
| Career goals | Desirable for senior clinical roles.  Required for some senior clinical and management positions in health | Required for careers in research and teaching  Complements advanced clinical positions  Required for principal investigator status on research proposals and grant applications |
| Completion rates | Not extricable from general ‘doctorate’ data  Estimate of ‘two thirds’/66%\*\* | 72.9% (2013)\* |
| Transferability | Recognized in USA, Canada and Australasia | Universal |

\*Times Higher Education: data predicted from Higher Education Statistics Agency (HESA)

\*\*Careers Research and Advisory Centre (2016)

It is noteworthy that despite proliferation of the PD into multiple disciplines, there has been a recent decline in PD enrolments in England (HEFCE 2016). This was particularly evident in the health sector (HEFCE 2016) and may relate to the impact of budget constraints affecting the NHS. The number of Ph.D .graduates in science and health in the UK grew exponentially between 2008 and 2013, but a drop after 2013 was seen in Europe and in the UK. This trend was not seen in the US, who are the largest sector for Doctoral graduates, followed by Germany and then the UK (OECD 2016).

**Recognition and Status**

Such relatively rapid changes to the traditional doctoral education have inevitably prompted debate in the academic community. There have been reports criticising the increased volume of candidates achieving doctorates of all types, a situation viewed synonymously with a decline in standards (The Economist 2010; Larson et al 2014). Furthermore, there have long been issues with ensuring transparent and consistent assessment of the Ph.D, which relies solely on the opinion of the small number of examiners who read the thesis and conduct the viva voce (Jackson and Tinkler 2001). Clearly this applies to all Doctoral programmes, with regard to the thesis examination. However, the taught/vocational Doctorate also includes credits for assignments, arguably giving a more balanced assessment.

The perceived dilution of status, which is inevitable when a degree becomes more accessible to many people, is pertinent to all Doctorates. Reports in the media have equated the increase in Doctoral studies with falling standards, which they ascribe to a shorter study period and to more funded students (Times Higher Education, 2008). However, the larger number of students may be attributed to a more structured approach of a taught doctorate, which enables students to undertake rigorous study at this level while continuing to pursue a clinical or industry-based career.

Some pedagogical criticisms have been made regarding the ability of a practice-based thesis to fulfil the requirements of Ph.D. level research, since there may be a tendency to ‘evaluate’ existing practice, rather than to create new knowledge (Winter et al 2000). It is noteworthy that to achieve university validation for the programme, all Doctoral programmes must meet the grade descriptors for Doctoral study, as stated by the Quality Assurance Agency ((QAA) 2011). Doctoral study has been placed at level 8 on the Higher Education Funding Council England (HEFCE) QAA benchmark, but this does not differentiate between the two forms of Doctoral award (QAA 2011). The QAA continue to respond to reform of Doctoral education by UK (Harris 1996, HEFCE 2003, QAA 2011), and European agencies (European University Association 2010).

Table 3: Quality Assurance Agency (QAA) benchmarks for Doctoral Degrees

|  |  |
| --- | --- |
| QAA Level 8 Descriptor Number | Doctoral degree descriptors |
| 4.181 | The creation and interpretation, construction and/ or exposition of knowledge which extends the forefront of a discipline, usually through original research. |
| 4.182 | Able to conceptualise, design and implement projects for the generation of significant new knowledge and/or understanding.  Holders of doctoral degrees have the qualities needed for employment that require both the ability to make informed judgements on complex issues in specialist fields and an innovative approach to tackling and solving problems. |
| 4.183 | A substantial taught element in addition to the research component (for example, professional doctorates), lead usually to awards which include the name of the discipline in their title (for example, EdD for Doctor of Education or DClinPsy for Doctor of Clinical Psychology).  Professional doctorates aim to develop an individual's professional practice and to support them in producing a contribution to (professional) knowledge. |
| 4.184 | The titles PhD and DPhil are commonly used for doctoral degrees awarded on the basis of original research. |
| 4.185 | Achievement of outcomes consistent with the qualification descriptor for the doctoral degree normally requires study equivalent to three full-time calendar years. |
| 4.186 | Higher doctorates may be awarded in recognition of a substantial body of original research undertaken over the course of many years.  Typically, a portfolio of work that has been previously published in a peer-refereed context is submitted for assessment. Most degree awarding bodies restrict candidacy to graduates or their own academic staff of several years' standing |

QAA (2014)

As part of the freedom of movement enshrined within the EU, the Bologna Declaration (1999) aimed to provide a framework for universally recognised and transferable higher education qualifications, between European nations. This may encourage future convergence of some Doctoral pathways. Aside from improved harmonisation, the re-invention of the traditional Ph.D. could invigorate standards. It has already been suggested, that the post-nominal initials associated with the degrees should be more consistent, to avoid confusion between the many different designations which are currently used (Dearing Report 1996).

**The Future**

There are already numerous varieties of Doctoral degree and more pathways may still emerge. Currently, the Ph.D. remains as the gold standard for higher research degree training (Kirkman et al 2007), while Professional Doctorates aim to forge a closer relationship between knowledge production and utilisation (Rolfe and Davies 2009). The UK as a modern nation is a knowledge and wealth-based economy, and continued diversification of routes to Doctoral study should support these economic drivers. The number of Doctoral graduates is generally increasing and if fit for purpose should offer graduates the highest career opportunities.

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There remains an important position for each pathway in the healthcare setting. Indeed, Rolfe and Davies (2009) state that, whilst the Ph.D. remains the doctorate of choice for traditional academic roles in health sciences and other disciplines, an alternative, but no less academically sound education should be offered. This will add value to those preparing for a full and active role at the theory-practice interface in healthcare. The Willis Report recommends greater partnership between the NHS and the Universities, for the optimal blend of applied and worthwhile research (Willis Commission 2012).

There has been a trend towards convergence of the pathways, whereby some Ph.D.s have become more structured, providing more taught support. More attention to the taught content and the support structures underpinning this difficult journey should also help attrition. Some of the barriers to studying at this level while maintaining careers and family commitments are recognised challenges (The Guardian, 2017). The experiences of nurses in North America are that of poor mentoring, financial concerns, social isolation and ‘institutional culture’, all of which are cited as barriers to completion of Doctoral degrees (Lee 2009). It may be that diversification of the routes to a Doctorate will ultimately re-invigorate the traditional route and introduce the best elements of post-graduate study. If due care is paid to student support, more entrants and less attrition would be expected to follow.

The move to an all graduate nursing profession (Willis Commission 2012) is a strategic move to support the complex healthcare needs of the future. This is likely to impact positively on careers in higher education and encourage post-graduate education and research. In health care, it is noteworthy that holding a dual Doctorate is becoming increasingly popular in the medical and dental professions. This allows the clinician/scientist to have an in-depth knowledge of both clinical and scientific rigor, thus allowing research to go from “in vitro” to “in vivo” and incorporating a sound understanding of both disciplines. This is one example of the demand for increasing levels of specialism, which is part of the delivery of modern healthcare.

Clearly commitment to attaining the highest standards in academic fields, necessitates career pathways reflecting scope and proper remuneration. While this has been an area of weakness, for example in nursing, where there has not been a dedicated academic career trajectory (Willis Commission 2012), Health Education England have started to address this in the ‘Shape of Caring Review ‘(2015). Recommendations are made concerning research and innovation, as well as emerging academic careers’ support.

In summary, both types of post-graduate doctorate are highly prestigious academic degrees, and confer the title “Doctor”, irrespective of the working environment. All forms of Doctoral study continue to evolve and a student considering embarking on a research degree program should seek advice from an academic institution, as to which programme will best suit their future career. Harnessing post-graduate talent, developing advanced clinical skills and facilitating quality research output, will be central to the future of healthcare service provision.

**Reflective Questions**

**Are there enough nursing and allied health professionals with Doctoral degrees?**

**Do you think Doctoral degrees support career development?**

**Would a Doctorate level degree enhance your career?**

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