PSΨAG

Psychology Postgraduate Affairs Group

A Guide for Psychology Postgraduates:

Surviving Postgraduate Study

(second edition)

Edited by:
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The British Psychological Society

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Introduction from the Managing Editor

Holly Walton

I am extremely pleased and proud to introduce PsyPAG's second edition survival guide!

In 2015, PsyPAG published the first guide to commemorate the organisation's 30th anniversary. The aim of this guide is to supplement the first edition and to continue providing postgraduates with support and advice throughout their studies! Given the success of the first guide in 2015, we felt that there was scope for a second edition to cover additional Psychology specific topics.

The content provided in this guide was inspired by feedback from you, our fellow postgraduates, so we hope that it is helpful! The guide has four sections and focusses on the journey of postgraduate Psychologists: (i) Preparation, (ii) In the midst of it, (iii) Professional development, and (iv) Personal development. Articles are mostly written by psychology postgraduates for postgraduates, along with a few articles from our alumni.

We hope that you and your Psychology department find this guide useful. As with the first edition, it is expected that future PsyPAG committees will update this guide in years to come as different topics become relevant. If you would like to download a copy of this guide please go to www.psypag.co.uk, where you can also find more information about PsyPAG in general!

Please let us know what you think of the 2nd edition by contacting us using the contact details below.

Holly Walton
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PsyPAG Chair, 2017–2019

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What is PsyPAG?

PsyPAG (Psychology Postgraduate Affairs Group) is a national organisation for all psychology postgraduates who are based at UK institutions. We have no official membership scheme. Anybody who is involved in postgraduate study at a UK institution or practitioners-in-training are automatically members! This could include Master's students, PhD students and trainee psychologists on professional doctorates.

We are funded by the Research Board of the British Psychological Society (BPS). All of our work is undertaken on a voluntary basis by postgraduates who have been elected onto the committee. The committee includes representatives for each Division and Branch within the BPS (see flowchart below). Their role is to represent postgraduate interests and problems within each part of the BPS. We also liaise with the BPS student member group to bridge the gap between undergraduate and postgraduate studies, and to raise awareness of postgraduate issues. Please do get in touch if you would like to apply to become a representative or would like to raise any issues that you feel are important. A full list of current representatives and contact details, alongside committee vacancies, can be found on our website: www.psypag. co.uk. Our committee meet regularly to discuss how we can continue supporting our postgraduate members.

Our purpose is to provide support for all psychology postgraduates, to encourage communication between postgraduates and to represent postgraduates within the BPS.

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PsyPAG Chair, 2017–2019

PsyPAG Flowchart

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PsyPAG Quarterly

4 Editors

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Sub-Committees
Alumni
Awards
Bursaries
Communications
Workshops

What does PsyPAG offer?

If this is your first time hearing about PsyPAG, chances are you are unsure of what we are and what we actually do. Here we have provided a brief outline of how PsyPAG can benefit you during your time on this course, and how you can get involved!

Annual conference
PsyPAG host an annual conference in July which aims to be a supportive, safe space for all post-graduates to present their work and network with colleagues. We have excellent keynotes from renowned psychologists every year and we also offer workshops throughout the conference to extend postgraduates' skills. Social events are warm and welcoming and it is a great place to meet colleagues and friends for life! More details are available on our website.

Bursaries
PsyPAG offer bursaries to help postgraduates meet the expense of research-related activities. Please see our website for more details. Annual application deadlines are 10 October, 10 February and 10 June. We offer bursaries for:
● *Research Grants (up to £300)* – Towards any research related expense, such as participant payment and personal travel cost.
● *Domestic (up to £100) or International conferences (up to £300)* – Towards registration, travel or accommodation.
● *Travel (up to £50)* – For attendance at professional development events.
● *Workshop and Training (up to £100)* – Towards professional development courses/events.
● *Study visits (up to £200)* – For travel, accommodation and other expenses.

Workshops and training
PsyPAG have a workshop budget for postgraduates to apply to receive funding to organise tailored events which benefit postgraduates. Previous workshops have included: Books, Burnout and Balance and Systematic Reviews. Application deadlines are: 31 October, 28 February and 30 June.

Awards
PsyPAG would like to acknowledge postgraduate students for their hard work throughout their studies. Currently we offer four awards:
● *Rising Researcher Award* – To recognise outstanding early PhD research. Prize: £100 and chance to present at annual PsyPAG conference (expenses up to £150).
● *Master's Award* – To recognise outstanding Master's level research. Prize: £100 and chance to present at annual PsyPAG conference (expenses up to £150).
● *Undergraduate Award* – To recognise outstanding Undergraduate research. Prize: Chance to present at annual PsyPAG conference (expenses up to £200) and chance to publish in the *Quarterly.*
● *DART-P Teaching Award* – To recognise outstanding teaching by postgraduate psychologists (For DART-P members only). Prize: £150, a one-year DART-P subscription and a teaching-related textbook.

Peer-reviewed journal

The Quarterly

PsyPAG run a postgraduate peer-reviewed publication that is sent in print to every Psychology department in the UK. *The Quarterly* is published in March, June, September and December. We always welcome new submissions including: research articles, hints and tips, interviews and reviews. Please see our website for more information on the type of articles we accept. Alternatively, you can email: quarterly@psypag.co.uk or tweet @PsyPAGQuarterly.

Mailing list

JISCMail

Started by a member of our PsyPAG alumni, we host a psychology postgraduate mailing list. This can be used to recruit participants, ask for methodological or statistical advice or find out about training opportunities or jobs. The list is a supportive platform for postgraduates across the UK. See our website for details on how to subscribe.

Social media

Follow us online for more information.

● www.facebook.com/PsyPAG
● @PsyPAG
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Part I: Preparation

Section leads: Holly Walton, Olivia (Olly) Robertson & Derek Burns

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Overview

The first section of the PsyPAG Guide (2nd edition) is the Preparation section. This section aims to prepare potential Master's, PhD and trainee psychologists and those about to begin their course with the skills and information needed to start their journey well. We have five articles in this section.

The first three articles in this section help the reader to navigate the application process. The first article *Getting onto a PhD* by Samuel Hales (University of Kent), Derek Burns (Sheffield Hallam University) and Benjamin Partridge (Sheffield Hallam University), provides readers with information on applying for a PhD, as well as considerations when applying for a PhD with a family and applying for a PhD after a break from studying. The second article in this section: *Finding a suitable placement for entry into a Professional Doctorate or Stage 2 training* by Kiran Bains (City, University of London), provides readers with information about finding a suitable placement when applying for a Health Psychology, Occupational Psychology or Sport & Exercise Psychology Stage 2 qualification, along with some useful top tips. The third article in this section: *Dealing with Disappointment* by Olivia (Olly) Robertson (Keele University) and Jennifer Dunsmore (University of Aberdeen), provides tips and first-hand reflections on dealing with disappointment during the application process.

Once you have secured a place on your course, our last two articles in the preparation section focus on the next stages. Our fourth article in this section: *Writing the perfect protocol and NHS ethics* by Rosie Martin (Sheffield Hallam University) and Liam Knox (Aberystwyth University), provides guidance on how to write a protocol and navigating the NHS ethics processes. Our final article in this section: *Managing your PhD* by Holly Walton (University College London), outlines ways in which students can manage their PhD, including managing the project, supervision, and managing time to maintain a good work-life balance.

I would like to thank Olivia (Olly) Robertson (Keele University) and Derek Burns (Sheffield Hallam University) for their hard work reviewing and co-editing this section.

We hope that these articles are useful for you when preparing for your postgraduate courses.

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Getting on to a PhD
Samuel Hales, Derek Burns & Benjamin Partridge

Over the last decade, there has been a 25 per cent rise in the number of students applying for doctoral-level study across the UK (Universities UK, 2017). Prior to committing to a PhD, applicants must make an informed decision as to whether working towards a PhD is valuable for them in terms of personal and professional development. By answering some of the most frequent questions asked by PhD applicants, this article aims to demystify common myths associated with doctoral-level study

Introduction

For many viable PhD candidates, the prospect of applying for doctorate-level study provokes understandable feelings of trepidation. However, these individuals comprise a diverse group with different lived experiences, backgrounds, and personal commitments. Throughout this article, the authors will draw on both academic literature and their first-hand experiences to introduce prospective doctoral students to the PhD application process. This is with the aim of helping these persons to decide whether doctoral-level study would be a valuable undertaking.

This article will first review the steps which comprise the general PhD application process, including: deciding to undertake a PhD, identifying a research topic, choosing a university, supervisor compatibility, seeking funding, application preparation, and the interview process. Attention will then focus on applicants with children, and those returning to education after a period of employment. These sections will highlight the potential challenges and concerns which prospective students may encounter throughout the application process (e.g. financial issues, childcare), and the means by which to best overcome these prior to starting a PhD.

1. The general PhD application process
1.1. Deciding to undertake a PhD

The decision to undertake a PhD is not an easy one to make. By doing this, you are accepting that you are going to commence what is likely one of the hardest, most demanding journeys that most academic researchers encounter. Should you see your PhD through to completion, you will also be bestowed with the highest degree that a person can achieve, and you will have made a valuable contribution to academic knowledge in your field.

There are several key facts here that must be overtly considered during this 'decision-making' stage. Listed below are three major examples:

1. **PhDs are long.** If you find your way onto a PhD course, you will be spending between three and six years working towards your degree. In this time, it is expected that you will write up a thesis of approximately 80,000 words, which you will have to defend via means of a *viva-voce examination* (a formal assessment in which you verbally defend your thesis against a panel of academic researchers in your field).

2. **PhDs are emotional.** In their investigations, Levecque et al. (2017) found that 32 per cent of the PhD students they assessed ($N = 3,659$) were at risk of developing a psychiatric disorder owing to their studies. For many doctoral researchers, this may be unsurprising. Whilst conducting and writing up your thesis, it is likely that you will encounter various setbacks which will have a negative effect on your mental health and wellbeing. Though many universities try to combat this by creating supportive academic environments, there is still an onus on PhD students to become self-aware and resilient workers.

3. **PhDs are all-encompassing.** Typically, interviewing panels select PhD candidates who will

act as ambassadors for their institution. This means that alongside your research, you will be expected to navigate the organisational policies of your university, any job requirements, and your supervisors' leadership styles, all whilst maintaining a healthy work-life interface.

1.2. Identifying a research topic

Arguably the most important stage of the PhD application process is choosing what you would like to research. Whilst some universities offer pre-devised projects to apply onto, it is often the case applicants will have to develop their own research proposal.

To start, we would recommend devising a list of topics that you are passionate about. Ask yourself: What areas of psychology interest you? What topics do you like learning about? Once you have done this, read around each of the topics and identify gaps that a PhD could viably fill. This is a cyclical process, but by the end you will have formulated a basic idea as to what you want to study and how you plan to study it.

1.3. Choosing a university

Choosing where you want to study is typically based on what you want to study. If your research interests are broad, then PhD vacancy websites provide a good starting point for searches (e.g. www.jobs.ac.uk/phd). Here, you can find pre-specified PhD projects, as well as general doctoral programmes and scholarships from institutions across the UK. If your research interests are more specific, then it is best to approach potential supervisors directly (see below).

The Research Excellence Framework (REF) is a useful tool to help categorise universities with strong publication records and academic achievements. Postgraduate league tables can also be beneficial in helping to compare university rankings. Make sure to consider the caveats associated with these classification systems before using them, though (see Khazragui & Hudson, 2015).

Of course, doctoral-level study is not unique to the UK and some PhD candidates decide to conduct their research abroad. If this is the case, www.findaphd.com offers an excellent selection of articles on 'PhD Study Abroad'. Here, you can also search for international PhD projects and programmes, both funded and unfunded.

1.4. Supervisor compatibility

Most PhD candidates will have a minimum of two trained academics who oversee their projects. These *supervisors* will provide you with guidance and assistance so that you can carry out your research effectively and present your findings most appropriately. They will also support you in your personal and professional development.

Good potential supervisors will be those deemed experts in their field, who possess an excellent record of academic publications and who have seen numerous PhD candidates through to completion. They will also be individuals who set aside time for regular one-to-one meetings and who provide feedback on work in-progress.

One of the best ways to locate supervisors is through the readings that you made earlier on. Was there an author whose name appeared regularly? Is there an academic who is frequently cited in key papers? If so, locate their staff profile online, read up on their academic interests, and then get in touch to arrange a meeting.

1.5. Seeking funding

PhDs are not a cheap undertaking – for home students, most cost between £3,000 and £6,000 per annum, whilst for international students, figures can rise to upwards of £18,000. Moreover, these tuition figures do not include living expenses and course-specific costs, which can result in an added financial strain. However, there are a number of opportunities available to you to locate the money to finance your degree.

Arguably the most common source of funding are scholarships awarded by a student's host institution. Often these are in the form of *demonstratorships* or *assistantships*, whereby you receive financial support for your PhD in exchange for academic teaching at your university. Another source of funding comes in the form of studentships from UK research councils (e.g. the Economic and Social Research Council), who will fully fund a PhD by paying your tuition fees and providing a significant doctoral stipend (set at £14,777 in 2018).

PhD candidates also have the opportunity to finance their own studies. Several universities offer discounts to students who self-fund, and there are often more relaxed entry requirements onto PhD programmes for these candidates.

1.6. Application preparation

Once you have identified funding, you will be tasked with writing up your PhD application. Depending on which funding you are applying for, this application can vary in length from a short-form synopsis of your research to an in-depth proposal. Each funding provider will have different requirements here, though most impose strict word counts on their applications. As such, you have to make sure that you write concisely and convey all the necessary information that will enable someone outside of your supervisory team to understand your proposed research.

1.7. The interview process

Following a successful application, you will likely be invited to an interview at your university of choice. These interviews are typically short in length (around 20-minutes) and provide you with the opportunity to highlight your academic potential. The interview is often split into two sections: the research proposal (in which you present your proposed research) and the interview (in which the panel probes you about your eligibility for doctoral study). During the interview, you may expect to be asked questions such as: What makes you suitable for doctoral research? Why do you want to study at this university? How to expect to juggle a PhD and other work commitments?

From personal experience, interviewing panels tend to consist of a member of your supervisory team, an affiliate of the Graduate School, and the lead for doctoral funding within your host school.

1.8. Next steps

After your interview, the university will usually let you know within a week whether you have been successful or not in securing a place on their PhD programme. If this is the case for you, congratulations! You are now on your way to becoming an academic researcher. If your interview was not successful, your application will likely be added to a 'waitlist' of applicants. This means that, should any successful candidates relinquish their position, the university may ask you to fill their place.

2. Considerations when applying with a family

Studying for a PhD with a family is common in the PhD community. This next section discusses the unique challenges and considerations for those applying with a family. These challenges relate to balancing the family and PhD life, as well as the additional costs associated with childcare.

2.1. University and the childcare options

Before applying for the PhD, it is a good idea to get a feel for the university and any potential supervisors, to assess how family friendly they are. Many universities offer part-time PhD

programmes which can take longer to complete, but are more flexible in terms of childcare. Unfortunately, part-time studying is not open to all students. For example, international students need to be on full-time courses to fulfil UK immigration requirements.

When discussing your PhD proposal with supervisors, also consider talking to them about your personal situation and children. Some universities may offer discounted prices for on-campus nurseries, which can be useful when you have children under five.

2.2. Employment/Student status and impact on childcare cost.

The average student does not have 'employed status', despite the expectations of universities for students to work eight hours a day, teach (if on a demonstratorship) and publish papers. This has a deep impact on the benefits you may receive – specifically in relation to childcare – which you would be entitled to if you were in full-time employment.

On average, the weekly costs of nursery childcare are between £114 (two-year olds) and £116 (three to four-year olds) for the UK, with this increasing to between £154 (two-year olds) to £156 (three-year olds) in London (Which, 2018). Unlike those studying for an undergraduate degree, there is little help from student finance to cover childcare fees, especially if you receive a stipend. All children between the ages of three to four receive a minimum of 15-hours free childcare in term-time (school holidays not included), independent of parental work status. Any additional help to cover costs of childcare relate to the work status of lone parent or both parents. That is, to receive any further help with childcare, each parent in a household is required to work at least 16-hours per week. Therefore, due to the average PhD student being classed as having 'student status' and not 'employed status', there is no additional help with these childcare costs for those on doctoral programmes.

If you are self-funding and working part-time, you may meet the 16-hours per week criteria and so may be entitled to childcare. Each individual case may differ; therefore, it is suggested you visit www.gov.uk/childcare-calculator when considering applying for a PhD. This site takes into consideration your personal situation and can provide an estimate of childcare-related benefits that you may receive.

2.3. Balancing your PhD and family life

One of the challenges of studying for a PhD with a family is striking a balance between these two important aspects of your life, but rest assured that this is manageable. Ensuring you have the full support of your partner or close family is important. A PhD can be challenging – being able to fall back on your family to understand and support you will help you to get over the difficult periods. Also, remember your PhD is not going to get a Nobel Prize (Hughes, 2018), so it does not have to be perfect. Similarly, you are not going to be the perfect parent all the time. Striving for perfection in either aspect of your life while studying for a PhD is only going to lead to needless stress and worry. Unlike a normal 9-5 job, studying for a PhD is quite flexible; you make your own work plan, which works best for you and your family. Granted, there may be times when the PhD takes up all of your time, but this is rare. Always make time for your family and children.

Having children while doing a PhD is not a liability, so ensure that you spend quality time with them (Jamil, 2014). See your children as an asset, giving increased drive and perspective about what is and is not important, providing a release from the pressures of the PhD (Murdie, 2014).

3. Getting onto a PhD after a break from study

For many, the idea of starting a PhD straight after an undergraduate or Master's degree can be a daunting prospect. For others, it is a natural progression. Those who decided to take a break

from higher education and enter the world of work can face similarly tough decisions to leave. This can include difficulties accessing journals, library services and support from academic staff; challenges to financial stability, and the readjustment to a new working structure and loss of a daily routine.

3.1 Applying for a PhD after a break in study

One hurdle in returning to study is the process of writing a PhD application. This can appear daunting after a break in education, but it is important to know how to access help at this early stage.

Making contact with a previous supervisor or member of academic staff you have worked closely with can prove useful in developing your understanding of the application process. Previous supervisors are often very willing to help in assisting with writing your application or providing feedback on drafts.

Contacting your potential new director of studies is also essential to express your interest, begin to build a relationship, and gain support and guidance. It is important to remember that your potential new supervisor is looking to recruit a PhD student and therefore willing to provide support in writing your application too.

3.2 Accessing support materials for your application

Those wishing to return to education may have access to articles and papers that are freely available online, but may not be able to easily gain access to more specialist materials. Your potential new supervisor will be a good source of support in gaining access to these materials and may be able to advise on key texts and articles.

Some universities also offer temporary library passes or associate memberships to their library for former students, local council staff, teachers at local schools or those working in public sector roles. Access to such university provisions will be essential in writing your application and being able to draw on up-to-date research in your specialist research area. There is usually a small annual charge associated with these services.

3.3 The application form

One of the biggest differences in securing a 9–5 job and securing a PhD is the application process. Most workplaces require you to complete a detailed application form with pre-set questions which guide you through the process of applying for the position (e.g. by encouraging you to focus on your skills and suitability for the position). With a PhD, the application process is very different.

Most universities will ask you to write a proposal for the advertised subject area or for your own research project, in which you will be expected to draw on academic literature and demonstrate your understanding of your research field. This is a very open-ended process, unlike the traditional job application. This is your chance to demonstrate your academic writing ability and knowledge. Drawing on the expertise of your potential supervisor will help. Treat the proposal like the initial stages of a lab report: include literature and some background knowledge, set out the aims and objectives of the study and consider the potential methodology. Most importantly, though, highlight how your proposal will create an original contribution to knowledge within your field.

3.4 Financial implication of returning to study

For some, the biggest worry in returning to study is financial. Many who return to study after working full-time for a number of years may have a mortgage, considerable bills and other financial commitments which render the self-funded route impossible. Some PhD courses,

especially those with demonstratorship positions attached, offer a stipend. While this funding may not match a full-time wage, it goes some way to maintaining a steady and predictable income.

Before starting your PhD, it is important to consider the financial implications of committing to further study. You should be certain that the stipend you will receive will cover your monthly livings costs, bills, and any mortgage/rent payments. You should also consider how your new monthly income may affect these outgoings in the future. Where a pay-cut is taken, it is particularly important that these can be maintained over the coming years.

4. Conclusion
The PhD application process is often a long and exhausting one. Several months can be spent revising an application with your supervisory team to make it ready for submission. However, if due time and effort is put into devising a strong, distinct PhD proposal, then the benefits can be vast.

We encourage all potential PhD applicants, regardless of the route they intend to take, to spend sufficient time researching what doctoral study involves and how they can best prepare for it. This will not only prepare you for the application process, but will also provide you with the knowledge necessary to succeed in your PhD.

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Finding a suitable placement for entry into a Professional Doctorate or Stage 2 Training equivalent

Kiran Bains

Undertaking a professional doctorate or Stage 2 independent training equivalent provided by the British Psychological Society enables training as an applied psychologist, using evidence-based practice to provide services to the public. Securing a work placement is one of the most important prerequisites for successful application to entry to some courses, including those specialising in health, occupational and sport and exercise psychology. This article will discuss key elements to consider when aiming to find a placement, including role and trainee contribution, organisational support, training and development opportunities, inter-professional collaboration and funding to appraise suitability for placement.

Introduction

Psychology postgraduates that aim to become applied psychologists need to undertake specialist training in their field of interest. Currently these include clinical, counselling, health, educational, forensic, occupational and sport and exercise psychology. This article will focus on the importance of finding a suitable placement for those aiming to become applied health, sport and exercise or occupational psychologists (see Figure 1). This is because there is considerable overlap in the qualification process for these fields and candidates need to independently secure a placement to enter further training, which can potentially be the only one they have throughout their training. This may contrast with other trainee courses, such as counselling psychology, where placements are short-term, focussed on developing skills in using specific therapeutic approaches to help specific client groups and may be sourced with the assistance of a placement support officer.

Figure 1: The fields of health, occupational and sport & exercise psychology

Health Psychology: Focuses on people's experiences of health and illness, including health promotion, chronic illness management and interactions with the healthcare system.
Occupational Psychology: Focusses on performances of people at work, how individuals, groups and organisations function, including looking at how to improve organisational effectiveness and job satisfaction.
Sport & Exercise Psychology: Use of psychology theory, research and techniques to help athletes perform optimally and increase uptake of exercise in the general public.
(BPS Careers, 2018; See www.bps.org.uk/become-psychologist/additional-careers-resources for more information)

The process

Undertaking a Master's is the first stage to obtaining a professional doctorate and entering a professional practice. This stage helps develop a theoretical knowledge of your chosen subject. The professional doctorate, or independent stage two training equivalent, involves application of theoretical knowledge gained through Stage 1 training to research and applied practice with specific client groups in the field. This is in contrast to a PhD, which enables qualification as a research psychologist (see Table 1).

Table 1: Qualification process: applied versus research psychology

	Professional Doctorate	Qualification Stage 2	PhD
Awarded by	University (accredited by BPS).	British Psychological Society (BPS).	University.
Emphasis	Applied practice.	Applied Practice.	Research.
Placement	Yes.	Yes (but see below).	No.
Optional combinations and fees and funding	Most courses are self-funded and incur £6000-6500 a year in fees for full time study.	May be carried out concurrently with PhD and incur additional fees but can reduce pressure to find an appropriate professional placement as some activities fulfil both (e.g. conducting an intervention as a research study ticks both boxes).	May be carried out concurrently with Stage 2 training and a few courses integrate the two, providing funding to cover fees of both plus some living expenses.
Dominant career focus	Psychological intervention and assessment planning, delivery and evaluation with target client groups and other professionals working with them.	Psychological intervention planning, delivery and evaluation with target client groups and other professionals working with them.	Psychological research into various fields of psychology (e.g. cognition, affect, theory, intervention development).
Typical length (full time)	2 years (minimum) supervised practice by a practitioner psychologist.	2 years (minimum) supervised practice by practitioner psychologist.	3 years.

The placement

Trainees acquire a significant amount of their knowledge and skills in research and practice on placement. Thus, it is essential trainees are able to secure a role that will enable them to develop this. They will also need to demonstrate, when applying for course entry, how they plan to meet at least some of their competences in this context. Competences are listed in detail in candidate handbooks on the BPS website (see https://www.bps.org.uk/psychologists/society-qualifications/). Indeed, finding a suitable placement can be the most significant barrier to entry for prospective candidates as they may struggle to identify or create opportunities to do this. However, it is accepted that prospective trainees may not know how to address all aspects of their portfolio at the outset of their training. Novel opportunities may also arise during their studies and organisational changes may occur in that time. Candidates may also sometimes change their placements during training, though this is not mandatory and depends on individual circumstances.

Nevertheless, some competencies may take longer to fulfil than others and it may help prospective trainees to contact a potential supervisor or course director to ascertain which ones these are likely to be. For example, a research project may take time to plan and conduct, and

trainees will need to allow time for ethics applications and consider how they plan to access participants in a professional context. This is particularly the case for vulnerable groups (e.g. young people, adults using care services) or certain contexts (e.g. the NHS).

Guidance and resources

Prospective candidates may also receive some guidance about potential settings for placement depending on their interests by contacting course tutors of institutions offering training at Master's or doctoral level. Additionally, attending conferences and local network events in their specialist field may help them find out where current trainees are based or where to apply for appropriate roles that can form the basis of training (see also Table 2). Further information can also be gathered from BPS Careers (https://careers.bps.org.uk/) or Prospects (www.prospects.ac.uk). BPS Member Divisions in health (@divhealthpsych), occupational (@ occpsychuk) and sport and exercise psychology (@BPS_DSEP) can also be followed on Twitter. They have links to prominent psychologists, and also advertise appropriate roles for placement and host academic conferences in their fields.

Table 2: Placement settings and roles for Health Psychology, Sport and Exercise Psychology and Occupational Psychology

	Health	Field Sport and Exercise	Occupational
Settings	Universities, hospitals, Private Sector, Third Sector.	Sports clubs, athletics programmes, health sector, occupational sector.	Human Resources, Business, NHS, Government, Prison Service, Ministry of Justice.
Example roles	Research assistant, assistant psychologist, recovery worker, mental health support worker.	Sports Coach, PE teacher, exercise or fitness instructor, health promotion.	HR, Recruitment, Management, Administrative/ Office-based roles.

Things to consider when choosing a placement

It is important for candidates to consider which client groups they aim to work with and topics they wish to specialise in within their field and organisational context. Training within large or specialist organisations such as the NHS will likely mean that their role will be structured as candidates will have pre-specified responsibilities, such as within the Improving Access to Psychological Therapies (IAPT) programme or research roles. Training within smaller organisations, including some charities, sports clubs or business enterprises, can lead to a more varied role and potentially greater flexibility. However, there may be less understanding of the skillset and knowledge of a trainee psychologist and their potential contribution to an organisation, as well as potentially less contact with other trainees in the field.

Funding

Having a paid role on placement can facilitate access to training and continuing professional development opportunities, but trainees may need to independently conduct extra projects to fulfil some of their competences outside of their working hours. This is in addition to time spent writing reports where this is not part of their normal role, thus increasing workload. Having a research role, for example, may facilitate development of a research study and

conducting a systematic review. However, trainees may need to seek out other opportunities to develop as practitioners, such as conducting assessments or working directly with clients. Due to greater potential flexibility of unpaid roles, candidates may be able to achieve more of their training goals during their daily role, but potential trainees may also need to consider how training will be funded and how living expenses will be met. This is because most trainees rely on income from employment or personal sources rather than a grant or stipend.

Ethics

Candidates in non-traditional roles may need to be more proactive in understanding what is needed to conduct ethical professional practice in accordance with professional bodies such as the BPS and the Healthcare Professions Council (HCPC) as these may not always align with organisational policy. To err on the side of caution, best practice may be to follow whichever guidelines are most stringent. Trainees should seek advice from their supervisors once they begin their training, but it is helpful to be mindful of this when applying for course entry.

Considering organisational impact

Planning involves some understanding of how competences may be achieved whilst on placement and it also helps to map out anticipated impact on clients and potentially, the wider organisation. Within my training, for example, this manifested in thinking about how research undertaken could impact on the development and delivery of health promotion interventions to service users with learning disabilities. This also involved anticipating training needs of allied professionals, including how to improve their knowledge and skills in providing support to increase clients' uptake of health promoting behaviours. Feasibility and acceptability were particularly important as this needed to be conducted within significant time and resource constraints common to social care organisations (Spanos et al., 2013). Finally, the possibility of creating a wider health promotion culture, through sharing of best practice and influencing organisational policy, was also considered from the outset (O'Leary, Taggart & Cousins, 2018).

Candidates may also experience resistance to change within the organisation (e.g. other services may compete for priority, or struggle to release staff for training), and it may help to understand, if possible, prior to training where this may arise, through attending to organisational politics (Rhoades & Eisenberger, 2002). It can also help to enquire with stakeholders into how a trainee may help in their setting or organisation (Schein, 1999) as this may aid development of a training plan.

Organisational support

To assess whether an organisation is suitable for placement and secure an appropriate role, it is important to assess the degree of organisational and supervisor support and build on this if possible. This is based on the principle of organisational reciprocity for employee commitment (Gouldner, 1960). Types of organisational support include: displaying concern about employee welfare, better role conditions such as support to manage stressors and provision of supervisor support (Rhoades & Eisenberger, 2002). This can present itself in practical ways such as giving candidates greater autonomy in managing their workload, facilitating access to continuing professional development (CPD) opportunities, providing protected study time and assisting with the development of a training plan.

Additionally, senior staff showing interest in how the candidate is progressing as potential trainee psychologist, can benefit the organisation and their own career development. Furthermore candidates can gain valuable insight into sources of support (Kraimer et al., 2011; Rhoades & Eisenberger, 2002) and potential reach of the role when determining suitability for placement, which in turn can positively impact the candidates self-competence (Battistelli et al., 2016).

Involvement with organisations prior to applying for a professional doctorate, participating in training and development opportunities, and performing tasks to a high standard will lead to good relationships with an organisation. This in turn could lead to more potential placement opportunities for trainees. For example, prior to becoming a trainee psychologist, I worked as a support worker in various services and took projects with clients with complex mental and physical health needs to build my skills and professional reputation. This helped me to secure a placement opportunity as a trainee psychologist within the organisation. It can also help to seek feedback from a supervisor or mentor to ensure better fit between the proposed trainee role and organisational objectives (Parker & Collins, 2010), as this can help to build professional networks which may be useful during training (e.g. facilitate meeting other psychologists in partner organisations).

Furthermore, workplaces may not have a good understanding of the professional psychologists' role. Therefore, communicating how training can benefit the organisation and clients is important. Potential supervisors can then help to create proposals and facilitate access to clients and research participants. This can take considerable time and effort, particularly when working with hard to reach or underserved populations. Not having support from your organisation could make it difficult to undertake research and training activities. This includes: teaching staff or conducting interventions with clients or employees and it may then take candidates longer to achieve their competencies as a result. Therefore, it is important to build good relationships with organisations before beginning a placement.

The relationship with the supervisor

Arguably, the most important relationships during doctoral training are those with academic and workplace supervisors. A workplace supervisor may act as proxy for perceived wider organisational support (Rhoades & Eisenberger, 2002), career mentor and advocate on behalf of a trainee to facilitate access to client groups. They may also help with establishing projects and providing opportunities for development (Kraimer et al., 2011) and help to resolve problems which arise during training. Moreover, a supervisor will also ideally have extensive knowledge of the client group a candidate aims to work with as well as early involvement in development of the training plan at application and interview stages. They can then facilitate implementation of the plan during training, though the candidate will have primary responsibility for devising this when applying to gain entry to doctoral or Stage 2 training.

A workplace supervisor will work alongside an academic supervisor to evaluate a candidate's performance of their competences, and provide written reports of feedback and sign records of attendance and completion. Thus, it is important that they are registered professionals with appropriate bodies, such as the HCPC and ideally, the BPS. If they are not, then a workplace contact may need to be established with these credentials. Ideally the workplace supervisor would be a psychologist in the same or an allied profession (e.g. clinical psychologist for a trainee health psychologist). If a preferred supervisor is experienced at working with the target client group, has influence in the setting and a well-established social network, they may be able to find an appropriate workplace contact for the candidate. Ideally the workplace contact will also have experience working with the target client group and this should be easier if they are found through professional contacts allied to the organisation, such as through multi-agency collaboration or inter-disciplinary team working.

Alternatively, for those undertaking the professional doctorate, the university may be able to arrange for a second supervisor who is a practitioner psychologist, to provide additional input when needed for the trainee or workplace supervisor. Although the secondary supervisor may not have specialist expertise with the target client group, if the main workplace supervisor works closely with the target clients this can be an effective partnership, provided

good communication is established early in the training and their role is clear. This will help to ensure that plans made are realistic and trainees are not expected to work beyond their knowledge and skillset.

Conclusion

Trainee psychologists in health, occupational and sport and exercise psychology work in varied organisational contexts and prospective candidates may need to be proactive in seeking out an appropriate placement. They may also need to factor in their interests and whether the placement provides opportunities to meet competencies, if funding is available, what the degree of autonomy in their role is and the presence of organisational and supervisor support. Building good professional relationships is also important to help candidates gain entry and begin their journey towards being an applied psychologist.

Top tips

- Develop a good understanding of your target clients and topics of interest. Think about what you would aim to address. Would this involve fostering resilience in professionals working with vulnerable clients and ascertaining impact on staff turnover? Helping service users with mental health issues to manage comorbid physical illness? Supporting football players to reduce rumination on mistakes and assessing impact on performance?
- Take on projects that involve working with people and developing relevant skills that can help with training and make your case for stepping into a trainee role. Examples include recruiting new staff (assessment), working with service users with health issues (providing health information, supporting medical adherence), running exercise workshops (intervention development and planning).
- Learn about experiences of others in the field. This can be through attending a careers talk (these are regularly arranged by the BPS for members as local events), conference and networking events, reading BPS Division publications for your field (free for members: Health Psychology Update, Sport & Exercise Psychology Review, OP Matters).
- Be very clear about how you plan to meet at least some of your competences through your placement when making your application. This can aid your credibility and have real impact on your training journey.
- Maintain open communication with your agreed supervisor during the application process. When you begin training, your organisation will be expected to collaborate with the institution providing the course and this will help your supervisor to coordinate this (e.g. placement visits, registering as your placement provider).

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Dealing with disappointment in the application process

Olivia (Olly) Robertson & Jennifer Dunsmore

The process of applying and getting accepted onto a research program is fraught with rejection and disappointment. This article provides information about application rejection, as well as tips and first-hand reflections on how to deal with the aftermath of disappointment in the application process, and move forward in a meaningful way.

Jen's story

Last year, I graduated with a Master's in Health Psychology from the University of Aberdeen. A PhD was never my long-term plan. After applying for various research jobs, I was offered a two-month internship post within the same Health Psychology department. Throughout my internship, I got a taste for research and various research staff said a PhD would be the next logical step. At the end of the internship I decided to pursue a PhD with my Master's supervisor.

While volunteering on another project with the same department, my supervisor and I developed a research project and submitted to three different funders over the three months. This does not seem like a lot, but just like a job application, the project needs to be tailored to the priorities of individual funding bodies. The university I was applying through uses a triage system (which means that the university decides which applications to present to the funding organisation). My first application was rejected at this stage and I found out within a month. The following two got past this stage and were discussed at panel level by the funders. Unfortunately, both applications were rejected. I found out five months after the initial application.

To this day, I remain unsuccessful, but intend to continue to apply for funding. While volunteering in the office I was offered a job as a Research Assistant in a nearby department. I continue to gain research experience which I can evidence in my applications. Additionally, I help with ongoing projects, attend seminars and get involved with the department where possible. I remain hopeful for the future and somewhat more resilient from the PhD application process.

Olly's story

After completing an MSc in Language Sciences (specialism in Neuroscience and Communication) at University College London, my ultimate dream was to undertake a PhD. I was inspired to investigate the role of language in emotion regulation. All I could think about was starting a specific PhD at a specific university with a specific supervisor. Indeed, I undertook the application process diligently. I contacted my supervisor months before the application deadline. I wrote countless drafts of my proposed research project, receiving critical and constructive feedback that was, at times, hard to accept. I sought emotional support and professional advice from my peers and academic colleagues. When I finally submitted my application I felt quietly confident.

Unfortunately, no-one could have been prepared me for what came next. After almost three months of waiting, I was informed that I had been unsuccessful in my application. I was devastated. There was nothing else that I wanted to do. It felt like I had come to the end of the road. Luckily, I was able to lean on my friends, family, and supervisor for support. After taking

stock of the situation, I digested the feedback I had received. The following year I submitted a revised research proposal on the same topic at the same university with the same supervisor. Within weeks I was invited to an interview panel, immediately following this I was informed that I had been granted a fully-funded PhD place. I am now in my second year of my dream PhD at Keele University. I have felt the sting of disappointment, but I know from experience that there is always a light at the end of the tunnel.

Facts and figures of postgraduate research course application rejection

The experiences shared by Jen and Olly are not unfamiliar stories when applying for a PhD. Application rejection is both a difficult and commonplace experience at postgraduate level in academia. A comparison of data available from Athena Swan comprised of 11 UK institutions indicates that rates of acceptance onto postgraduate research programs is, on average, only 26 per cent (Table 1). For clinical roles, the rate of acceptance is even lower. Data available from The Clearing House suggests that only 15 per cent of applicants are successful in getting onto a Clinical Psychology Doctorate (CHPCCP, 2018). That means that you are likely to experience rejection during the application process, on average, 74 per cent and 85 per cent of the time for research and clinical courses respectively. Reasons for rejection can vary, including: internal politics, concerns about the project proposal, and issues relating to funding. The following article aims to provide you with some tips on how to deal with rejection and disappointment during the application process.

Table 1: Individual departmental Athena Swan data relating to application and acceptance rates for psychology postgraduate research programs in 2012/2013

	Number of Applications	Number of Acceptances	Acceptance Rate
University College London	1410	189	13%
Cambridge University	62	19	31%
University of Oxford	82	21	25%
Keele University	21	7	33%
University of Liverpool	156	40	25%
University of Leeds	63	19	30%
University of Glasgow	25	14	56%
University of Kent	90	21	23%
Bangor University	140	27	19%
University of Aberdeen	40	8	20%
Queen's University Belfast	38	3	9%
		Average Total: 26%	

What does rejection mean for you?

No matter how many times you experience it, rejection hurts. The words and phrases we use to talk about, and understand, rejection reflects this pain (Leary, Springer & Kowalski, 2007). *Hurt feelings. Broken hearts.* Feeling as though we have been *punched in the gut*. This isn't surprising based on the neurophysiological basis of rejection. In a study conducted by Eisenberger and colleagues (2003), participants were scanned in a functional magnetic resonance imaging (fMRI) machine whilst playing an interactive game of catch with two other computer-generated players. When rejected from the game, participants showed increased brain activity in regions associated with physical pain. Thus, research shows that rejection activates the same neural pathways as physical pain. The take home message from this is that the pain you are feeling following rejection is real; it can feel impossible to deal with but, it is manageable.

Managing rejection may seem unbearable. Indeed, in the face of such disappointment we tend to develop a *thick skin*, which usually means ignoring things or simply refusing to accept them. There is, however, one key concept you can use to help you recover when you experience rejection. This concept is resilience.

The importance of resilience

Resilience is a combination of abilities, resources, and characteristics which dynamically interact to allow an individual to bounce back, successfully cope, and continue functioning regardless of significant stress or adversity (Tusaie & Dyer, 2004). Individuals who are highly resilient have adaptive coping skills and can convert negative experiences into learning and development opportunities (Ozbay et al., 2007). Therefore, resilience is not just recovering quickly, but recovering flexibly and carefully, allowing you to move forward meaningfully from your disappointment. Everybody possesses the ability to be resilient, which can be improved through behaviour change (Tusaie & Dyer, 2004). Behaviour can be changed in a variety of ways to improve your resilience at times of disappointment, the current article focuses on four approaches: emotion acceptance, active coping, self-compassion and keeping perspective.

Emotion acceptance

Rather than suppressing, ignoring or denying how you feel, try to acknowledge your emotions of disappointment. Simply being aware of the pain can allow you to experience the emotions without spiralling into worry or rumination (thinking about something repeatedly). Avoiding thoughts about rejection or ruminating is associated with a further increase of negative emotions (Nolen-Hoeksama, 1998). Engaging with your feelings, through channels such as expressive creative arts (i.e. music, dance, writing), or video games (Granic, Lobel & Engels, 2014), can make it easier to connect to and make sense of your emotions. Similarly, seeking support from friends and/or your supervisor can help you understand your feelings (Nils & Rimé, 2011). Additionally, you may prefer to process the rejection alone. This may be going for a solitary walk, exercising, or even taking a long shower. Ensure that you take time out for yourself to understand the situation. Engaging with how you feel gives you time to grieve, which can help start the process of moving on from the disappointment of rejection (Boud, 2009).

Active coping

Active coping refers to behavioural or psychological responses that change your personal experience of the event (Christen, Nevin & Christen, 1986). Active coping skills can be improved throughout daily life. When something negative happens – for example, receiving feedback on your application that you do not agree with – engage with that frustration. Take a few deep breaths, then do something proactive to cope with the feelings rising in you. You can then subsequently plan how best to move forward – for instance, develop an action plan based

on the feedback you received. This can be the same process for dealing with disappointment from a PhD rejection. Active coping can increase resilience, practicing this may help you move forward.

Self-compassion

Thirdly, self-compassion involves being open to and moved by your own suffering. Being compassionate to yourself also means taking a non-judgemental attitude towards your perceived inadequacies and failures (Neff, 2003). Rejection and failure are a basic part of the common human experience. Being compassionate to yourself has been shown to mediate the distress of pain and disappointment. For example, Leary et al. (2007) asked 408 participants to report daily negative events, respond to hypothetical negative scenarios and reflect on critical personal feedback over a period of three weeks. Participants who were compassionate to themselves about their inadequacies and failures reported feeling less overwhelmed by their distress compared to those who were not self-compassionate. The disappointment of being rejected is an unfortunate but likely consequence of the PhD application process. By showing yourself care and kindness, you can, not only accept that the rejection was not a reflection of you and your ability, but come to terms with the decision and plan your path forward.

Keep perspective

Finally, bear in mind the bigger picture. This may seem obvious, but it is easy to forget. In the grand scheme of things, a rejection is only one small part of an academic career. There are ways to move forward to eventually achieve what you had planned or more than you hoped. With each rejection comes an opportunity to learn and improve. Whether that's an improvement of your writing skills, your ability to bounce back, or your interview skills, you can use rejection to your advantage.

Moving forward in a meaningful way

Once you have had time to process the disappointment of an unsuccessful application, you can start to plan for the future. The path you take will be specific to your personal experiences and circumstances. There are, however, a few actions that can be universally undertaken to inform this process. These actions are: engaging with application feedback, obtaining a good supervisor, exploring other avenues and connecting with research.

Engaging with application feedback

Engaging with feedback is key to making progress after an unsuccessful application. Feedback is an essential component of personal development, providing the opportunity for reflection and professional growth (Weaver, 2006). Whilst it may be an unnerving and fear-provoking process, by acknowledging the strengths, weaknesses, alternative approaches of unsuccessful work, candidates can translate rejection into future successful applications.

Unfortunately, accessing feedback is not necessarily a straightforward process. Unsuccessful candidates may need to request specific constructive criticism from the head of department, potential supervisor, or chair of the interview panel. Indeed, even with a request, candidates may not be provided with an overview of why their application was not successful. Irrespective of when or what feedback you receive, try to remain professional throughout all communications with the academic institution. Academia is notoriously described as being a *small world*. In the future, the individual providing you feedback may be a mentor or colleague. Aim to have a professional correspondence that benefits you. This correspondence should be mutually respectful and free from emotional content (Hardavella et al., 2017).

Once feedback is received, it is important to apply it to future applications. This can take

time. Anecdotally, even the most senior academics report needing to take a few days or weeks to process such information. In order to use feedback effectively, it is essential to formulate an action plan to tackle each individual criticism directly. Useful action plans are SMART – specific, measurable, achievable, relevant, and time-bound (Doran, 1981).

Specific plans target a particular area to improve (e.g. calculate sample size for PhD project). Measurable goals provide a way of quantifying progress (e.g. scan relevant literature to inform sample size calculation). Achievable goals are attainable within a reasonable time-frame and with your current resources (e.g. in the office, Monday morning from 9-10am). Relevant goals apply specifically to improving your research applications, whether that is improving your writing skills or reading more relevant literature. Finally, time-bound goals (e.g. send calculation to supervisor by Monday 1pm) ensure that you are going to succeed in delivering your goals. By setting SMART objectives you can create an individual plan that both reflects on your past and plans for success in the future.

Obtaining a 'good' supervisor

There are ways of moving forward besides from editing your application. One such method is ensuring you have chosen an appropriate potential supervisor; a supervisor with whom you have a mutually constructive and supportive relationship. The importance of a 'good' super-visor cannot be overstated. Supervision is an important element of successful postgraduate study, with many students anecdotally reporting that their supervisors are an instrumental source of inspiration and motivation throughout their academic career (Brailsford, 2010).

Supervision does, however, move beyond affective and motivational support. An analysis of 15 empirical research articles demonstrated that supervisors' research background (including established research record and grant application successes) was one of the main factors asso-ciated with positive supervisory relationships (Abigail & Hill, 2015). A supervisor with a strong track record of publications in your chosen area can offer a more in-depth level of experience, compared to those without. Conversely, a supervisor who is an early career researcher may be more familiar with current trends and have more time available to devote to supervision. Without having a full appreciation of the importance of each issue, a candidate can struggle to choose an appropriate supervisor.

Personality (including relationship issues and personality clashes) is also important. Having a suitable working relationship has been argued to be essential for supervisory success. Super-visory relationships are generally successful when they are founded on openness, honesty, friendliness, mutual respect, and commitment (Abigail & Hill, 2015). Despite this, supervisory style can impact on a relationship more than personality traits. Styles of supervisors can span from laissez faire, a hands-off style where the supervisor allows the student to have complete control, to authoritarian, where the supervisor takes complete control of the direction and execution of the research project (Finigan & Lee, 2010). Whilst one form of management style may be beneficial for one person, it may be disastrous for another. Thus, potential issues can be mediated by understanding what you require from a supervisory style.

A supervisory relationship that is comfortable and beneficial for the student can make the difference between a rewarding relationship and a difficult one (Gill & Burnard, 2008). A supervisor can help their supervisee through some of the toughest parts of the academic career. Thus, the type of relationship cultivated even at the very start – especially following disappointment – can impact outcomes for a postgraduate candidate in the future.

Exploring other avenues

Re-applying for a PhD can take several months, at which point you can feel at a loose end. There are alternative options, including: applications for internships, assistant posts, fellow-

ships, research, or teaching positions – to name a few. These roles can either strengthen your future applications or serve as career opportunities. Such opportunities could be voluntary at first but may, in time, turn into paid work. Generally, positions across the research and clinical sector are contracted from two months to a year.

When thinking about potential avenues of employment, it can be useful to assess your skills. Other departments, beyond Psychology, may be looking for someone that can carry out specific research methods you may know, or looking for someone to take on a small project at short notice. If you do not have much research or clinical experience, charities or specific healthcare wards, such as neurorehabilitation, often have small projects running internally.

Connecting with research

Finally, throughout the application process, it is valuable to engage with research. Participating in research, helping to organise or attending academic activities, such as talks and seminars, are actions you can take to have a more positive experience throughout the application process (Emmioğlu, McAlpine & Amundsen, 2017), which in turn, help strengthen your CV. The benefit of staying active within academia – even if you aren't part of it yet – can give you valuable experience, open up new ideas, and allow you to meet many academics who could be potential collaborators, supervisors or, maybe one day, your colleagues.

Concluding thoughts

Rejection and disappointment are, unfortunately, commonplace occurrences throughout the application process. Sadly, whether you experience application acceptance or not is out of your control. There are, however, several ways you can deal with the initial *punch to the gut* of disappointment. You can take practical routes such as tackling your feedback head-on, staying in touch with current research practices, or nurturing a relationship with your potential supervisor and turn your application rejection into a positive experience. Alternatively, cultivating resilience may be one of the key ways of surviving, and consequently thriving following application frustration. Whilst, at the moment, the future may feel uncertain, you can navigate this period and move forward in a way which is meaningful to you.

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Writing the perfect protocol and NHS ethics
Rosie Martin & Liam Knox

National Health Service (NHS) ethics is a term, which can bring a bead of sweat to even the most experienced researcher. Although it can be a daunting process, if broken down into more manageable chunks, it is a worthwhile experience. This article will focus on providing tips and advice on writing the protocol, followed by tips on how to navigate the NHS ethics system.

Writing the perfect protocol

This section of the report will focus on writing the protocol, arguably one of the most important documents to be prepared ahead of the submission. The Health Research Authority (HRA) describes a protocol as 'an essential part of a research project' (HRA, 2018). From personal experience, it may seem difficult to write but it acts as a manual to the research project, so any queries about a research project can quickly be answered by referring back to the protocol.

The protocol is broken down below, with tips and advice on how to write the relevant subsections. It is important to remember that all research programmes will be slightly different and emphasis will be placed on different subsections, dependent on the research aims. To add to this, the requirements are ever changing, so be sure to check the most recent guidance from the HRA.

- *Title page:* This may seem self-explanatory, but it is important that this title matches the title used on all other documents. The Integrated Research Application System (IRAS) version number must be placed in the footer of the title page. Version numbers can be overcomplicated so remember to increase by one decimal place during the application process e.g. 1.0, 1.1, 1.2. Any amendments submitted would mean rounding up to the next number and starting again e.g. 2.0, 2.1 etc.
- *Study team:* It is important that the study team have the correct qualifications to fulfil their roles. There must be a Principle Investigator (PI) who will be responsible for the study at the research site. The PI is usually a member of the clinical team. There is also a Chief Investigator (CI) who is responsible for the study and therefore must have the competency to do so. This is generally the research student at MPhil/PhD level. The project will also need a sponsor, which for a Master's project or PhD is normally the University.
- *Summary section:* Perhaps the best way to think about this is an abstract. For example, this should include an introduction, methods, results and discussion section. Summarise the main aspects of your study as you would with a research article.
- *Background:* The background is similar to a literature review, but, as with the whole document, it should be clear and easy to digest. It is likely that it will be reviewed by a lay person or somebody who has no knowledge of the research area, so keep this in mind. Emphasise the rationale for the project and the importance of the research topic. This will be taken into consideration by reviewers.
- *Plan of investigation:* This is the main body of the protocol which will be split into many subsections; some of which can be seen below. Not all of the subsections need to be included but perhaps the ones which the author feels would be most beneficial. For example, drug trials require much more information in relation to trial design, trial setting and trial procedures. However, studies that are not drug trials would not need to include such detail.
- *Participants:* The inclusion and exclusion criteria should be included in this section. These

criteria are a very important part of the study and recruitment strategy so be sure to spend some time thinking about it. An example can be seen below:

Inclusion criteria: Cystic Fibrosis (CF) patients aged 16 years (this is the age when participants move from child to adult in Sheffield) who are currently receiving treatment through the adults CF Unit at Sheffield Teaching Hospitals. English-speaking. Participants will also need to own a smartphone.

Exclusion criteria: Those with CF who are under the age of 16, and not receiving treatment through Sheffield Teaching Hospitals. Patients who are in the palliative phase of treatment, pregnant or on the transplant list, at the start of the study, will also be excluded from taking part in the study.

- *Recruitment:* When working with a clinical sample it can be very difficult to access patients without their consent. Think about the best way to contact patients. Patients must provide verbal consent to their details being passed on, so who will do this? Often this involves many different team members. To help the process run as smoothly as possible, devise a flowchart and send it out to appropriate staff members. If working across different sites, it is important to build good relationships with different team members as they will help with recruitment.
- *Analysis*: Obviously this will be incredibly different for each study and the approach taken. It is okay to be vague if you are not yet 100 per cent sure what kind of statistical test or qualitative analysis will be adopted, but try to provide some detail.
- *Outcome measures:* Although the process of the study may seem simple to the person who has designed it, it can be appear to be more complex to those less involved. Rather than explaining each individual outcome measure, think about presenting it in a table. See Table 1 below for an example.

Table 1: Outcome measures sample

Outcome measures	Description	Format	When the measure will be given to participants?
The Beliefs about Medicine Questionnaire-specific (Nebuliser Adherence) (BMQ 21- item) (Horne, 1999)	A validated self-report tool, edited by the author to identify necessities and concerns for nebuliser treatment.	Questionnaire (Self-report)	Prior and post daily diary participation
Cystic Fibrosis Questionnaire-Revised (CFQ–R) treatment burden domain (Quittner et al., 2005)	A domain taken from the CFQ-R treatment burden domain.	Questionnaire (self-report)	Prior and post daily diary participation
Daily activity	A watch like device which participants will be asked to wear each day through their participation.	Measurement from Fitbit device	Each day

- *Data storage:* Try to provide as much detail as possible here – think about exactly where documents will be saved and where they will be securely stored. Also think about how files will be named and given version numbers. There should be a member of staff at your university who specialises in the area who could provide advice or a template to be used.
- *Project plan:* From personal experience; try to estimate how long tasks will take rather than giving specific months 'Month 1… Month 2 etc'. It is very rare that the exact month will be stuck to; however, you should try to stick to the plan where possible.
- *References:* As with all academic documents, sufficient references should be given to support your rationale. Remember to include literature, which provides a strong rationale for the study.

Top tips to help write the perfect protocol:
- *Try not to be overwhelmed about the level of detail!* As with the ethics system, some aspects of the protocol are aimed at drug trials which may not be relevant to the study; however, just try to include as much detail as possible.
- *Organisation is key!* As with all documents submitted for the purpose of NHS ethics, it is incredibly important to keep them organised and use correct dates and version numbers. If this is not sufficient, the application will not be processed. For example, make sure to check the consent form has the correct participant information sheet version number and date. This is even more important if amendments are submitted.
- *Use resources:* Make use of online resources (see web links at the end of the article) and peers who may have experience in writing protocols.
- *Get to know relevant Research and Development departments and staff members at University:* Similar to the point above, be sure to contact the Research and Development (R&D) department as early as possible to collaborate. This can help speed up the approval stage. Also remember to contact them when (not if!) help is needed completing the protocol. Get to know the sponsor, or which member of staff from the university will need to sign off your documents.
- *Don't bury your head in the sand:* NHS ethics is challenging and at times frustrating. To help speed up the process as much as possible, try to attack issues head-on, rather than leave them to one side, as they won't disappear. This links back to the tip above- if help is needed, don't be afraid to ask.

N.B. For those who may be completing a drug trial, much more detail will be needed in certain areas of the protocol. See the HRA and MHRA website for more detail on this (see Additional Resources below for links).

NHS ethics
After the protocol has been completed and all the collaborators are satisfied with the project, obtaining a favourable ethical opinion should be next on the to-do list. Although all types of psychological research require some form of ethics, this section will take the NHS ethical review process as an example, and give advice on how to navigate the many forms, committees, and permissions, needed to begin researching in an NHS environment. Much of the advice and tips are easily transferrable to other domains, even if your research is not within an NHS setting. Finally, this section will look at what happens immediately after a favourable ethical opinion has been granted, and the next steps which need to be taken before actual recruitment begins.

The Integrated Research Application System (IRAS) is the online platform which begins the NHS ethical review process. Forewarning, it can feel clunky and repetitive at times; however, there are online tools to help you navigate the system which will not be covered in

this section (see E-Learning tab on IRAS homepage). Creating an account on IRAS is straight-forward, and the next thing most applicants will want to do is plunge straight into creating their new project. However, first go onto the 'MY CONTACTS' tab and enter in anyone associated with the project. Throughout the application, IRAS will ask to have contact details entered repeatedly and having them uploaded one click away saves a lot of time.

After this has been done and the new project started, IRAS prompts the user to answer 'project filter questions'. Think carefully about these questions, as it will determine what fields can be filled out later on, and if there is a mistake, this section will need to be redone. The main sections of IRAS also need a lot of time spent on them. At a recent HRA training event, the trainer stated that most Research Ethics Councils' (REC) refusals are borne from IRAS information not corresponding with the submitted protocol. For this reason, knowing the protocol inside out, backwards and forwards, is a huge help; just because you may have written the protocol does not make you immune from making this simple mistake.

It is around this time that the applicant needs to be mindful that their decisions on which country their research is taking place in will have an impact on what forms need to be completed. In the authors' experiences, NHS student research is conducted relatively locally, either within one health board, or at least one country. If this is the case, Northern Irish and Scottish based applicants need to complete the Study Specific Information (SSI) form available within IRAS. English and Welsh based applicants will need to complete a Statement of Activities (SoA) and Schedule of Events (SoE). These forms are available on the HRA website. If the applicant is crossing into a country governed by the other set of forms, then all three documents will be needed. SoAs and SoEs have been used in England for a few years, they have also recently been incorporated by Wales; where the overall target is for all four nations to use these forms. Due to this reason, the online guidance on how to complete these forms is staggering. The HRA (England) and Health Care Research Wales (HCRW; Wales) websites offer a variety of resources to help researchers. IRAS offers guidance for completing SSIs. The authors' main tip for completing these, is to make the section detailing who is completing what study activity as broad as possible. Instead of saying patients will be recruited by Joe Bloggs, put 'the research team', this gives a little bit of wiggle room just in case Joe is on holiday. If this isn't possible, putting study positions (Chief Investigator, Principal Investigator, etc.) is the next best thing; even if a person is likely to occupy the same position throughout the study, unforeseen circumstances happen, and time-consuming amendments can be avoided with this simple trick.

The two last tasks involving IRAS are obtaining electronic signatures and submitting everything to the REC. The former can prove difficult if you're not in everyday contact with those which are needed to sign of the proposal; research students chasing down busy clinicians is generally the norm at this stage. Befriending administrative support staff is rather useful, as they usually will be able to track down whoever is needed. Submitting the proposal to the REC sounds easy – it is not. The process of what needs to be 'saved', 'printed', and emailed to various authorities is actually too complex to go over here. However, the IRAS system does inform the user of what needs to be done within the 'submission' tab, so just make sure the advice is read and double-checked before everything is sent off.

The Central Booking Service of the HRA website can be used to arrange which REC the research application is submitted to. Once this has been completed you should be notified when the REC will review the proposal. The HRA advise that applicants attend the meeting in person, however, teleconferencing facilities are available if requested. A student researcher's supervisor can also attend if needed.

The actual meeting can be extremely daunting if you are not sure what to expect. The REC consists of approximately 15 personnel, all with a mix of research experience; ex-clinicians, researchers, or laypersons. If you only take one thing away from this section, let it be this: do

not treat this meeting like an MPhil or PhD viva. Please do not defend every proposed aspect no matter what, you will not 'fail' or receive an unfavourable ethical opinion solely because you agreed to change something. Being extremely nervous at the thought of discussing a newly submitted research idea, the current author argued every point the REC had regarding the proposal. The author was hoping for the REC to agree to the proposal *exactly* as it was. The meeting did not go very well. After submitting proposals for the author's second and third studies, and approaching the meeting with a more collaborative attitude, the meeting went much better. The REC just wants to make sure that the research is ethical and that patients will not be exposed to untoward harm. For most reasonable proposals – e.g. those which are not replicating Zimbardo or Milgram's infamous research (1971 and 1963, respectively) – and after approximately 20 minutes of questions, providing that the REC is reassured of the need for the research and that all rational precautions are in place, a favourable ethical opinion could be emailed over within a few days. From personal experience, you will not get chased out of the room for saying 'I don't know' or 'I'm not sure', especially when these phrases are followed with 'what would you suggest?' The latter meetings went well because the author was a lot less nervous and did not argue for 10 minutes that the research will completely fail if a follow-up telephone call was not allowed (yes that actually happened). Instead, the author embraced the REC more as a resource to make the research proposal the best it could be. Try and be flexible with proposal aspects. Three favourable ethical opinions and two years later, and the authors' research is going fine (even without follow-up telephone calls).

This meeting is also likely to go better if you've gone to a Good Clinical Practice (GCP) training session. GCP teaches the best way to run an NHS study, from set-up and implementation, to recruitment and general study organisation. The training also provides a brief overview of what needs to be in the study site file; this is a binder containing all study related material, and is essential for everyday study activities and if the research is randomly audited. If the file is not in a suitable state, the HRA can pause or even shut down the research. If you haven't noticed yet, abbreviations are also rife in NHS research studies, and they also change a lot. GCP helps explain some of the many abbreviations that you'll stumble across. The author would also recommend GCP to non-NHS researchers, it is well structured and very informative, and normally a session will take place close by (check HRA or HCRW websites).

Providing all goes well, the proposal should receive a favourable ethical opinion, or, slightly more likely, favourable with minor amendments. These can range in complexity depending on the application, but generally are simple (e.g. changing part of the participant information sheet or reassuring the committee about data governance). If the proposal is rejected, do not simply give up, but go back over and see where the application was not as strong as it could be and make sure to stress why the research is necessary. A letter with points the REC were not happy with will be supplied, so it is a good idea to start there. You can appeal the decision or, once corrections are made, submit the proposal to a different REC (if you do not wish to submit to the original REC). Having never done either, the author will not make any suggestions on which is best, but make sure to talk over any decision with an academic supervisor.

Lastly, if the research falls under one of the first four categories within IRAS, the research needs to be registered on a publicly available database. This is normally stated in a tiny line right at the bottom of the favourable ethical opinion letter, so watch out for it! There are several eligible databases, so just have a search round; however, be aware that some charge for their use.

Final thoughts

Although the process of protocol writing and NHS ethics may seem a little overwhelming, remember to reflect upon the valuable learning experience! It is likely that if the reader wants to continue to work with a clinical population, all of that experience will be used again, so get

comfortable with the systems. If the reader is experiencing a problem, remember that even experienced researchers have the exact same problems and feelings, so use the help that is out there to get through.

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Additional resources

Health Research Authority website, see: https://www.hra.nhs.uk/

Medicines and Healthcare products Regulatory Agency website, see: https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency

Managing your PhD
Holly Walton

PhDs are largely unstructured. This can lead PhD students to feel uncertain and overwhelmed about how to move forward with their PhD. This article discusses different ways in which students can manage their PhD: from planning, organising and managing their project, effectively planning for supervision meetings to make the most of this support, and managing their time to maintain a positive work-life balance.

Starting a PhD can be daunting. PhDs are largely unstructured, which can lead PhD students to feel uncertain and overwhelmed about how to make progress with their research. A PhD is not just three years focused entirely on one research question, but it is also about developing skills to become an independent researcher. During a PhD, students are expected to develop many skills. These may include: research skills (e.g. identifying original research topics and designing and carrying out studies), presentation and communication skills, developing an understanding of the research environment (e.g. ethical issues and funding) and personal effectiveness (e.g. planning, managing professional relationships, identifying own training needs and managing career progression) (British Psychological Society, 2005).

As every PhD and PhD student are different, methods to manage PhDs will differ for everyone. This article aims to provide some tips, from the author's personal experience. These tips focus on: (i) how PhD students can manage their PhD, including planning, organising and managing their PhD project, (ii) how students can manage their time to maintain a work-life balance, (iii) how students can manage supervisors and (iv) how students can manage extra-curricular activities. Passion, determination and enjoyment for a PhD subject will help maintain momentum to keep going throughout the PhD, but organisation and efficient management of the thesis may make the PhD journey less stressful.

Planning, organising and managing your PhD project

After embarking on a PhD, there is a three to four-year (full-time) or six to eight-year (part-time) deadline looming. Finishing your PhD on time may lead to career, financial and personal benefits (British Psychological Society, 2005). Although this seems scary, there are things that we, as PhD students, can do to manage our PhD research effectively.

One of these things is planning. Setting goals and making action plans (specifying what you will achieve, by when, with whom and how) are behaviour change techniques which can be used to change a person's behaviour (Michie et al., 2013). Research suggests that planning may prevent people from getting distracted or giving up when faced with challenges (Gollwitzer, 1996), and there is evidence to suggest that these benefits may apply to student projects. An early correlational study indicated that 62 per cent of female university students who were asked to make implementation intentions specifying when and where they would complete a project during the Christmas holidays, completed their project (Gollwitzer, 1993). Furthermore, in an experimental replication of male and female university students, 71 per cent of students who made an implementation intention completed their project in the allocated time-period compared to 32 per cent of controls (Gollwitzer, 1993). Whilst it may seem a waste of time to initially spend time planning and not doing research, this planning will hopefully make the PhD more efficient in the long run!

Plan exactly what research needs to be done during your PhD to answer your research questions. This may take different forms depending on what the research focus is. It may not always

be possible to plan all of your PhD research projects at the start of the PhD if the next research study emerges from the previous findings. Short-term and long-term plans can then be made for each research study. Goals can be made for individual tasks within each research project. For example, for an interview study this could include: recruiting participants, conducting interviews, and analysing data. From this, it is then possible to set deadlines for each of these activities, and to break these goals down further into actions that need to be completed by the end of the day and the end of the week. This approach is consistent with the first step in a proposed cognitive-behavioural coaching model for PhD students. The cognitive-behavioural coaching model recommends that PhD students set measurable, time specific goals about the next thing they could work on for their PhD, which then can be broken down into weekly and daily tasks (Kearns, Gardiner & Marshall, 2008).

Keep track of PhD progress. Tracking could help you to plan ahead but also to look at the bigger picture of what you have achieved and what you have got left to do and when. One way to track progress is to create and update Gantt charts (timelines created using excel) for each of the research projects and activities planned within your PhD. Gantt charts are a visual way to show all of the planned activities within a project and highlight when each activity will be completed. For PhDs, the Gantt chart could be split into individual chapters or studies. Each activity for each study can then be listed. For an example of a Gantt chart, see Figure 1. Tracking can also help you to remember everything that you need to do for each study.

Figure 1: Example of a Gantt chart (drafted by the author)

Once a detailed timeline and plan has been made for each project, it is important to discuss these plans with supervisors. Supervisors will be able to offer feedback as to whether these plans are realistic. By telling somebody that this is what you will achieve by a certain date, this will also hopefully motivate you to do the work. It is important to note that research does not always go to plan. Try and add in extra time for tasks where possible to account for this.

As research does not always go to plan during a PhD, it is important to try and embrace uncertainty. This can be extremely difficult, particularly when aspects of a research project are often out of the researcher's control. It may be better to focus on things that can be controlled, rather than dwelling on things that are out of your control. For example, while waiting for your ethics approval to come back, why not get ahead of the game and start writing your introduction and methods sections. The time spent waiting will then still be productive!

Secondly, PhDs require a lot of reading. It is important to come up with a system to keep track of the reading that you have done. Different people have different techniques, but these could include making detailed notes within referencing software tools or NVivo (see O'Neill, Booth & Lamb, 2018), annotating PDFs with comments, or the author's chosen method: keeping a spreadsheet of the papers that have been read, the papers that are yet to be read, the topic area of the paper and notes about how the paper can be useful for the thesis.

Whilst planning and tracking progress are important when managing your PhD, everybody is different and so these methods may not work for everyone. Find out what works for you at the start of your PhD and have a go at experimenting with different methods and do not be afraid to stop using one method and try another. For example, some people may find monitoring anxiety provoking. It is therefore necessary to find a balance of planning and monitoring that works for you.

As all PhDs and PhD students are different, it is not necessarily useful to compare your progress to other PhD students' progress. Every student has different projects within their PhD and everybody works at different speeds. For example, some students may start the PhD knowing what all their studies are going to be, whereas other students may not have developed later studies yet. Alternatively, for some, PhDs may consist of many studies which take place in short timeframes, whereas for other students, data collection may take a long time and data may not be ready until the end of the project. These variations mean that everybody has different tasks at different time points. Just because your colleague has already received ethical approval, that does not mean that you are behind in your own PhD journey. The main thing is that you know whether you are on track with your own timeline.

Managing time to maintain a work-life balance

Whilst three years will go by quickly, it is far too long to maintain an all-day, all-night working schedule. Working all hours could impact negatively on a person's personal life and health. Burnout is defined as stress-induced tiredness and loss of motivation (Powell, 2017). Research has suggested that burnout among researchers can contribute to mental health problems such as depression (Powell, 2017). This is supported by findings from a study which used the General Health Questionnaire to measure the prevalence of mental health problems in 3659 PhD students in Belgium and compared this with 592 highly educated individuals in the general population and 333 highly educated employees (Leveque et al., 2017). They found that 32 per cent of PhD students in the sample were at risk of developing psychiatric disorders including depression. This was higher than the prevalence in the other two groups.

Additionally, mistakes could be made when working whilst tired. More time may then need to be spent redoing the same task the next day. The bottom line of this is: If we, as PhD students do not look after ourselves first and foremost before our PhDs, then we can probably not do our best work. It is therefore a good idea to try and develop good working habits during the PhD. This will also benefit us later in our careers when facing similar pressures.

The good news is, we can choose to maintain a good work-life balance during the PhD, but it does take some self-discipline. Different people do their best work at different times of the day. Choose when you work best, create a schedule, and stick to it. For the author, this involved treating the PhD like a 9 to 5pm Monday to Friday job, with the belief that clear working hours enabled more efficient working. By maintaining a working schedule, there is plenty of time for yourself, hobbies and social activities in non-working hours. At busy points in the PhD, people may choose to work additional hours – this is not a problem! However, the benefits of maintaining regular hours are that these additional hours every now and then are *choices* and not *expectations.*

Try and figure out where you work best and develop a working space. Find somewhere that you associate with working. This may be an office at your university, a café, a library or in a particular room at home. For the author, working in a PhD office at university meant that home was not associated with PhD work, which led to less feelings of guilt about not working when spending time at home.

Take holidays during the PhD. Holidays allow you some time to step back from your project which may help you to think about your ideas in a different way (Morrison-Saunders, Moore,

Newsome & Newsome, 2005). Most importantly, holidays will give you time to recharge your batteries. Plan your holidays in to your calendar, let supervisors know that you are going on holiday and put an out-of-office on emails. Although it is easier said than done, try not to check emails whilst on holiday.

Ideas have a way of popping up when thinking about or doing other things, for example, sitting on the train, trying to sleep, or when out with friends. Make a note of ideas when they emerge so that time off from the PhD can be enjoyed. To do this, you could carry a small notebook to jot down your ideas, make a note or record your idea on your phone. These thoughts can then be picked up again when next working on the thesis.

Making the most out of supervision and support

Fortunately, PhDs are not carried out in isolation. Supervisors play an integral role in the success of their PhD students (Bastalich, 2015; BPS, 2005). All PhD students have at least one supervisor to guide them through the PhD project. Whilst supervisors will support students throughout their studies, it is important to remember that supervising students is one of their many academic responsibilities. PhD students can facilitate supervision and maximise the benefits from supervisors' support and guidance. Some ways of making the most out of supervision are discussed below.

Firstly, plan and organise materials for supervision meetings. Create and send an agenda to supervisors in advance of the meeting. Take copies of these and other supervision materials along to the meeting. These agendas will help everybody to keep focused and on track during the meeting. This agenda will also help to create clear expectations between you and your supervisor and will enable you to ask for advice on the things that you need advice on.

In relation to this, it is so important to think about what you want to achieve from your meeting. Before your meeting, make a clear list of questions and possible solutions, relating to agenda points. By considering possible solutions prior to supervision or email correspondence, this creates a starting point to explain your thinking and ask for your supervisors' advice. Supervisors will then be able to support you in making and adapting those possible solutions, which will help you to make decisions about your research. Taking clear notes about the reasoning behind these decisions will also help you later in the PhD process when defending your research in your viva.

Discuss feedback deadlines with supervisors. Often, different supervisors may have different styles in relation to how they would like feedback to work for the duration of the PhD, so it is best to discuss this upfront so that everyone is on the same page. It is particularly helpful to set deadlines for individual chapters when writing the thesis, and to let supervisors know when they can expect each piece of work. This will help you to stay on track and to meet your goals.

Finally, and most importantly, ask for meetings when you need them and ask for help when you need it. PhDs are designed to develop independent research skills. However, we are still learning and it is okay to ask for guidance and advice from supervisors when needed. Supervisors will want to help you but may not realise that you are struggling if you do not ask for help. This may be particularly relevant when managing uncertainty throughout the PhD. Often, what seem to be giant, impossible to solve problems to the PhD student, may be easily solved following a discussion with your supervisor. Don't leave it too late to ask for support, and be sure to ask for exactly what you need from your supervisor.

Whilst supervision is extremely important throughout the PhD process, you should also remember that ownership of your PhD and the direction that your PhD takes is your responsibility. At the end of the PhD you need to be able to defend the decisions made throughout your PhD.

Managing extracurricular activities

To develop skills necessary for an academic career, students may take on other responsibilities during the PhD (Leveque et al., 2017). These tasks may include: teaching, organising events, sitting on committees, and publishing papers. Each of these activities requires a lot of time and may make managing the PhD more difficult if you take too many things on at once.

If you have been asked or an opportunity arises for you to take on another responsibility, think about whether you have time to do it alongside your PhD commitments. Ask how much time the commitment will take and find out what it will involve. This will enable you to think about whether you have enough time to do it. One way to do this is to plan your time for each task and make sure that there is enough time to complete research activities as well as additional responsibilities. Universities may also have guidelines on how much time you are able to allocate to additional responsibilities such as teaching, so be sure to check these.

Think about whether the task would be a good addition to your CV and whether it would be enjoyable and interesting. Say yes to activities that you have time for and that you enjoy or are interested in. Keep in mind that if there is too much going on, then it is okay to say no!

Saying no may be difficult, but people will understand and may be grateful for your honesty. One way of saying no is to thank the person for the opportunity and explain politely that you are unable to take on this responsibility/commitment right now because of *x* or *y*. If it is something you are still interested in doing later on you could always outline when you would have time to take on the opportunity, if appropriate.

If you have taken on additional responsibilities already and you are finding that there is not enough time to do your PhD, then additional responsibilities should be given up to make time for the PhD. It is okay to prioritise your research, but be sure to let the person who you are working with know!

Resources

Universities and Doctoral Schools offer training and courses on organisation to PhD students. Organisations like PsyPAG offer student-led workshops which may be relevant for topics such as managing the PhD. Social media is a good place to find tips on managing the PhD.

Conclusion

PhDs are, at the end of the day, a qualification and we, as PhD students, are still learning. It is important to remember that there is no pressure to get everything (including planning, balancing multiple activities and making the most of supervision) right the first time. All PhD students are different. Whilst this article provides some tips on how to manage your PhD, strategies for managing your time and PhD will differ for everyone. This article aims to provide some ideas, based on the author's experience, on how to consider managing the PhD so that people can identify solutions which work for them, to balance varying responsibilities and to make the PhD journey slightly less stressful and more structured.

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Part II: In the midst of it

Section leads: Catherine V. Talbot, Ryan Gamble & Paul Sharpe

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Overview

The journey of postgraduate study is confusing, demanding, and emotional for many students. When in the midst of postgraduate study, students manage multiple tasks (e.g. data collection, writing up) and face a number of challenges (e.g. loss of motivation, imposter syndrome), all while trying to take care of themselves and plan for the future. This section will focus on the path from data collection to the final viva, providing accounts from postgraduate students who have successfully navigated this often challenging journey.

This section begins with an article written by Rebecca Denniss (Sheffield Hallam University) and Catherine Talbot (University of Exeter) which provides practical advice about managing the second year of a PhD, focusing on data collection and upgrading from an MPhil to a PhD. The following four articles concentrate on the challenges of postgraduate study and how to overcome them. In *Alternative funding for postgraduate study*, Lucy Atkinson (University of Northampton) identifies different sources of funding that postgraduates can access (e.g. charities, professional bodies) and shares her own experience of accessing alternative funding. Following this, in *Conquering the bridge: The highs and lows of doing interdisciplinary research as an early-career researcher*, Margaret Laurie (University of Edinburgh) reflects on the challenges she has faced as a multidisciplinary researcher, such as interdisciplinary imposter syndrome and managing differently disciplined supervisors. In the fourth article in this section, *The valley of s**t: How to cope when you reach research rock bottom*, Catrin Peddar Jones (University of Bedforshire) discusses a period of struggle and loss of motivation experienced by many students – otherwise known as the valley of s**t. In this very relatable article, Catrin outlines how postgraduates may end up in the valley of s**t and, most importantly, how to get out of it. In the final article focussed on the challenges of postgraduate study, Nihan Albayrak (London School of Economics and Political Science) and Celestin Okoroji (London School of Economics and Political Science) discuss the challenges faced by minority students. While locating the problem in the system itself, they offer personal strategies that may be helpful when dealing with the unique challenges faced by minority postgraduate students.

The final three articles in this section focus on the final stages of postgraduate study: maintaining motivation at the end of professional doctorate; writing the thesis; and preparing for the viva. In the first of these, Suhana Begum (University of London) provides advice to those on both general and health psychology doctorates about getting through the final stages of a professional doctorate. Following this, in *Writing for success: The thesis* Ramona Rusu (University of Buckingham) and Claire Melia (University of Keele) give top tips on how to write a thesis, which postgraduates should keep in mind when writing their thesis. In the final article of this section, *'Congratulations, Dr!': Surviving and thriving in your viva*, PsyPAG Alumni Ryc Aquino (University of Cambridge) and Claire Wilson (University of the West of Scotland) provide practical guidance on preparing for, and successfully completing the viva by demystifying this process.

The articles in this section are intended to provide practical advice to students who are in the midst of postgraduate study. Finally, I would like to thank the 'In the midst of it' section leads: Paul Sharpe (Plymouth University) and Ryan Gamble (Cardiff University) who have

helped make this section a success while in the midst of their own PhDs! We hope these articles have been useful and will help you to successfully navigate the journey of postgraduate study.

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Managing the second year of your PhD: Data collection and upgrading from an MPhil to a PhD

Rebecca Denniss & Catherine Talbot

Your PhD typically takes the following course: Getting to grips with the literature and necessary research skills in the first year, conversion to PhD status and data collection in the second year and third year dedicated to writing up the thesis. This article aims to provide guidance and information for the crucial second year.

Upgrading from an MPhil to a PhD

At many UK universities, prospective PhD students are enrolled on an MPhil course before transferring to a PhD. This process is usually referred to as an 'upgrade' or 'transfer', marking an important milestone in the PhD journey. The process of upgrading varies between institutions, but students are generally required to attend a mini-viva and submit a report outlining the work they have completed so far as well as their plans for the remainder of the PhD. The purpose of this process is to assess the student's progress, their ability to complete the work within the time-frame, and whether the work is of sufficient quantity and quality required for a PhD.

For many students, the upgrade is the first real assessment of their work. It is important to remember that this is a useful process, providing an excellent opportunity to receive feedback on your work from an academic not directly involved in your research. The upgrade is a formative assessment to make sure you are on track to achieve a PhD, meaning any misunderstandings can be highlighted and discussed. Take this as an opportunity to consider other ideas and think about how your research can be improved. This can only benefit you and your research. It is also important to remember that the upgrade viva will take place between one to two years of your PhD, so by this time you will have secure knowledge about your topic area – don't underestimate your own abilities and have faith in the knowledge you have accumulated during your studies!

It is important to work hard and prepare carefully for the upgrade to be successful, receive useful feedback, and get the most out of the process. In the upgrade report provide as much detail as possible and use this opportunity to showcase the work you have completed to date (e.g. literature review, draft journal article, etc.). By providing these examples, you can demonstrate your ability to produce PhD standard work and also receive more detailed feedback from your examiners.

For many students the mini-viva is the most intimidating part of the upgrade. You can prepare for the viva by going through your work, writing down potential questions you could be asked, and by conducting a mock viva with your supervisors or fellow PhD students.

As previously mentioned, the upgrade is a fantastic opportunity to receive feedback on your work from people who are not part of your supervisory team. It is therefore important that the examiners have experience in your area so that you can receive comprehensive feedback. Students will often be involved in selecting their panel, so it is important to choose people who are experienced in either your topic or method. If you are not involved in choosing your upgrade panel, ask your supervisor why a certain person was allocated and what experience they have.

The upgrade examiners will provide you with a lot of feedback during the viva. It will be difficult to remember all the feedback you receive as you will be focused on formulating answers to their questions. This will be even more difficult if you are trying to take notes during the examination. Ask your supervisor if they can sit in on your viva and take notes for you. If this is not possible, ask the examiners if you can record the discussion. By doing this, you will have a record of all the feedback, which you can then implement in your research and use to prepare for the final PhD viva.

Following the upgrade, postgraduate students often experience a 'PhD slump' consisting of a loss of motivation, focus, belief, and passion for their work. This is completely normal due to the energy devoted to this process. To get over the post-upgrade slump, take a break from your work to avoid academic burnout. After a break from your research, you can return to the PhD feeling refreshed and ready to continue with your work. Make sure you celebrate overcoming this important milestone by engaging in some well-deserved self-care – you've earned it!

Data collection

Ideally you want to get your data collected efficiently so it can be analysed and you can move forward. It is possible that it's going to take you longer than you would like and it's best to plan for it not going smoothly; this applies to whatever kind of research you are doing. Remember the hurdles you come across are only there to make you jump higher, every challenge can be overcome and you will learn from them all. Different kinds of research present different problems. Here are a few to consider:

Using dyads or groups

Here you are trying to get more than one participant in the same place at the same time, or getting the same person to turn up on a number of specific occasions. You will have times when insufficient people for your research protocol show up at the designated time and place, leaving you trying to rearrange; being aware of the potential for this to occur at the outset is important. There are some problems in data collection that you cannot prevent as they are out of your control; ensure that you are as organised as you can be in your participant communications and remain calm in the face of trying times.

Longitudinal research

Similarly there will be times when conducting longitudinal research that your participant is not able to make the specified time. As far as possible try to account for this in your research design and be understanding. In longitudinal research it is important to build a rapport with your participants to keep them engaged for the long haul, which can be very rewarding.

Use of technical equipment

When using technical equipment in your research, for example, eye-tracking, retinal imaging, EEG or biopacks (along with associated computer-based tasks) there will be occasions when one component or another goes wrong. It's inevitable. This is where you need to have an excellent relationship with the people working in your technical resources office! Use this opportunity to engage with your participants as you try to iron out the glitches; remember everyone runs into problems in their work, whether in academia or outside it, and your participants will most likely sympathise.

Questionnaire-based research

This form of data collection is relatively straightforward and has the advantage of allowing you to collect quantitative and qualitative data. The major sticking point is numbers; you will need

many more participants than other forms of research to ensure there is enough power for analysis to allow for attrition (if the study is longitudinal) and for missing data. If you are stuck, and feel as though you have exhausted all avenues for participants, there are online services that may be helpful, for example, 'Survey Exchange' on Facebook.

Qualitative research

For those using interviews as the basis of data collection the number of participants required are fewer compared to other forms of person-based research, with the emphasis on in-depth analysis. For those using text-based data rather than interviews, the challenge is selecting the right original source data to analyse and whittle down. Your supervisors will give you guidance, however this is your research, you know what data you are interested in, so have the faith of your convictions.

For all forms of data collection persistence is the key. If there is one quality that all successful PhD students share it is unreasonable, unrelenting, persistence. You will get there, through hiccups, cancellations and disappointments. The flipside to the problems is that participants are generally fantastic. They are interested in what you are doing and will let you know that your research is worthwhile.

Throughout your second year remember you are an academic in training and you are not meant to have all the answers. Ask for help to find solutions, the worst anyone can say is 'no'. Although you will have challenges as you move through this part of your PhD, take time to appreciate your achievements and reward yourself when you reach milestones.

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Alternative funding for postgraduate study

Lucy Atkinson

Alternative funding sources are available for postgraduate students. Charity funding is an incredible source and one not to forget when planning further higher education courses such as a Master's or PhD.

My story

Six months into teaching English as a Foreign Language in South China in a reputable boarding school putting my Master's knowledge into practice, I browsed the internet for funded PhD scholarships and projects. I knew I wanted to begin a new challenge, complete research at doctorate level in the UK and begin working towards my career goal of being an academic lecturer and researcher. After searching, I could not find any PhD opportunities which fit my research ideas, and several of the deadlines had already passed. I quickly realised that I would be self-funding the course. Shortly after being accepted for the PhD, I began researching again for sources of alternative funding. Quite baffled and not entirely sure where I could look, a family member stumbled across an article by Anderson (2011) in *The Guardian* online which detailed 'alternative funding for postgraduate study'. I followed the advice in the article, and began to locate funding and think about what I needed the funding for other than my tuition fees. Due to my research being experimental fieldwork, I knew additional funds for travel and materials were needed.

To date, I have won over £12,000 for my PhD over the last four years and have gained experience in writing different types of applications. Some of the charities which funded my PhD are: Sidney Perry Foundation; Merchant Navy Educational Trust; and the Dorothy Johnson Charity. I feel that postgraduate students in Psychology need to be more aware of the different types of funding, especially alternative sources. My strong advice to postgraduate students is to research all avenues (e.g. internal awards, internet databases and Educational Directories) and begin applying. Students often need some encouragement to apply for these sources and knowing where and how to apply. Furthermore, I would advise any graduate who is thinking of going into postgraduate study (Master's or PhD) to always follow their plan and dream. If money is the only barrier, it can be alleviated. Charity funding is an incredible source and one not to forget when planning further higher studies. More important is the experience that comes from engaging in funding applications as this can provide an insight for writing grants in the future. It can also help in future employment applications when there is evidence of securing funds and grants.

Primary funding sources

Charities and trusts

Alternative sources of funding are a resource which students can apply to and they typically come in the form of charities and trusts. Charities are sometimes a bit unusual, obscure, hard to find, and funded by 'old money'. However, there will be dozens which will consider sponsoring you, whatever your course, university, nationality or background, and whether you need money for fees, maintenance, research costs, travel, or conferences. Hearing about charities funding postgraduate courses may come as a surprise, as few people or universities are familiar with this funding option. The UK has a strong tradition of philanthropy, and there are thousands of charities, trusts, and foundations with grant-making power totalling millions, that will consider funding students at both postgraduate and undergraduate level (Blaxill & Zhou,

2018). These voluntary bodies vary considerably in size and resources from huge multi-million-pound organisations like Oxfam, to small trust funds run by a few volunteers.

Some charities and trusts are specific, for example, The Vegetarian Charity which will only grant postgraduate funding to students with a history of vegetarianism or veganism, and The Leverhulme Trade Charities Trust which will only finance students who are related to grocers, chemists, or commercial travellers. Most of them, however, are interested in simply helping people overcome financial difficulty, and funding good causes.

Professional bodies and societies

Professional bodies and societies are a place to begin searching for conference and research-related costs once enrolled on your postgraduate course. Typically associated with your subject area, this source is interested in your research and helping with your professional development. Some examples are: British Psychological Society; British Academy; PsyPAG; and the Experimental Psychological Society. Take advice from your supervisor or fellow peers and colleagues about relevant professional organisations, if there is a membership fee (usually discounted if you are a student or recent graduate) and what grants they have available.

Crowdfunding

Crowdfunding is a relatively new funding concept, and a major alternative fundraising strategy for postgraduate students. Websites such as Hubbub, Kickstarter, or GoFundMe are ideal for beginning your campaign, although Hubbub seems to be the best for students at present. There are many successful students who have succeeded in raising impressive sums for fees and maintenance through crowdfunding, and a few have received attention in the national press (Packham, 2016). If you feel comfortable with the idea of crowdfunding, some advice is to begin by creating a profile to raise funding for a designated specific amount of money (for example, £4000 towards fees) and try to write a persuasive pitch for a lay audience on why you and your work are interesting and important, as you would for a charity. You could also include a video and promote your campaign on social media. While strangers can and do donate, crowdfunding campaigns are often most successful in raising money from people you already know in real life, who are encouraged to give when they see you as a campaign. A particularly innovative strategy would be to dovetail crowdfunding campaigns with charity applications. Naturally, if a charity is made aware that you are also running a crowdfunding campaign – especially one that already has some supporters – then they are likely to be emboldened by this in the same way they would be if you already had other charity backers.

Top-up funding

During your postgraduate studies, there will be situations where you will require top-up funding. For example, help with funding tuition fee payments, accommodation and maintenance, living costs, research related costs, travel costs, printing costs, equipment, memberships and/or conferences. Try to remain open to different platforms, networks and places when looking for top-up funding. Some of the areas to concentrate and look at are listed below:

- *Your institution* – check your university website to see if there are any internal scholarships available. There is also usually a hardship grant.
- *Online* – using Google searches with keywords 'alternative funding postgraduate' 'phd charity funding'. Often universities have published their own pdf documents of funding sources and awards, so it is worth searching for these.
- *Alternative Guide to Postgraduate Funding* – a social enterprise which is committed to postgraduate funding from charities and providing students with the blueprint of where to look, how to apply, tips and advice and recent student stories.

● *Local library* – A visit to the local library (one where you live and your local authority, not your university library) can prove useful. Two sources to look for are *The Grants Register* and *The Directory of Grant Making Trusts.* These books have dedicated sections for educational grants and will contain hundreds of bodies you may apply to.

Using the *Alternative Guide to Postgraduate Funding*

My motivation for looking for alternative funding sources came from the *Alternative Guide to Postgraduate Funding* (2018), which I read about through an article on *The Guardian* online. I purchased the PDF book, and used the advice, tips and contact details of over 30 charities. The resource now comes in an online version and universities across the UK subscribe, so it is worth checking whether your university has a subscription. The *Alternative Guide to Postgraduate Funding* was initially founded in 2007 as a social enterprise dedicated to postgraduate funding from charities. They currently publish the *Alternative Guide to Postgraduate Funding* as a web resource, printed, CD, and PDF form and it is one of the most popular postgraduate funding resource in the UK and has sold over 500,000 copies or licences in the five years they have been publishing (Blaxill & Zhou, 2018). The online resource is comprehensive, and an area of the website which is free to use is the Student Stories. These are real and honest accounts from postgraduate students who have received funds for their studies through alternative means, and well worth reading. Overall, I would say the *Alternative Guide to Postgraduate Funding* is a wonderful resource, and without finding this little gem I would really have never enrolled on my PhD. The guide gave me the blueprint for successful letter writing and spurred my interest and determination to keep on applying throughout each year of my PhD.

Other advice and tips

● Be prepared to spend some time on applications and follow up applications if you have not had any response or feedback on your application.
● Search using all methods, not just using online sources.
● Always read the charity or trusts' history, case studies and tailor your applications.
● Log your applications in a spreadsheet with name, contact details, deadlines, criteria and whether you have applied or not with the dates.

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Useful resources

Alternative Guide to Postgraduate Funding https://www.postgraduate-funding.com/, https://www.postgraduate-funding.com/students
The Complete University Guide https://www.thecompleteuniversityguide.co.uk/postgraduate/what-will-it-cost/funding-postgraduate-study-through-charity/
FindaPhD https://www.findaphd.com/funding/guides/phd-without-scholarship.aspx
Jobs.ac.uk https://www.jobs.ac.uk/careers-advice/studentships/1534/phd-funding-a-checklist-of-possible-funding-sources
Postgraduate Search https://www.postgraduatesearch.com/funding
The Guardian https://www.theguardian.com/education/2016/apr/25/meet-the-students-crowdfunding-their-university-tuition-fees

The Scholarship Hub https://www.thescholarshiphub.org.uk/

Top Universities https://www.topuniversities.com/where-to-study/europe/united-kingdom/
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Conquering the bridge: The highs and lows of doing interdisciplinary research as an early career researcher

Margaret Laurie

Conducting multidisciplinary research is commended and encouraged, but it comes with unique challenges which students may face during the research process. Here, I discuss challenges such as managing differently disciplined supervisors, sharing work with different people, and handling imposter syndrome when working on an interdisciplinary project.

Psychology is a broad discipline – spanning many areas of research, and combining techniques from multiple fields of study. My own research draws on theories from psychological sciences, and methods from both learning sciences and the study of human-computer interactions, to explore how technology influences the way that autistic children play and interact with other people. I'll be the first to admit that's not the catchiest elevator pitch. Answering a research question like this requires collaboration between psychologists, computer scientists, learning scientists and tech developers, and provides something for each unique audience to take away with them, for example, how to design new technologies to support collaboration, how to use collaborative technologies in the classroom effectively, and what the study of autistic human-computer interaction teaches us about autism.

The psychological sciences have been going through a crisis as of late: with many foundation studies failing to replicate, and the harsh realisation that perhaps complex statistical analyses are better left to the statisticians. As a result, some research questions have become rather sophisticated (and other questions have become more simplified), and psychologists are increasingly collaborating with researchers from other fields to get a better understanding of findings 'in the real-world'. The types of people psychologists may collaborate with include statisticians (that's a given!), sociologists, neuroscientists, biologists, computer scientists, and linguists. One of the most difficult yet rewarding things about doing multidisciplinary research is trying to approach a research question from multiple angles. Being introduced to different methodological approaches, analytical techniques, and ways of thinking is incredibly rewarding and enriching experience for a student. Additionally, learning how to communicate your research to others, particularly those who do not have the same background as you, is a highly sought after skill during a PhD and it comes in particularly handy when you meet many different people. Conducting multidisciplinary research allows researchers to develop many skills which are highly advantageous. Through my own research, I go to medical/autism conferences and talk about computer science and go to computer science conferences and talk about autism. I get to have lots of fascinating conversations with many interesting people, including autistic people, their parents, teachers and practitioners, as well as tech developers and research scientists.

As amazing as this all sounds, doing an interdisciplinary PhD is also tough. It's very rewarding *because* it is so tough. We all have ups and downs on the research journey, but I think multidisciplinary projects come with their own unique challenges that I haven't had to face in other projects that reside in only one discipline. Over the next few paragraphs, I'll discuss some of these challenges and how I've (tried to) overcome them.

Managing cross-discipline supervisors

If you are an interdisciplinary student, it is likely that you will have individually disciplined supervisors who may have limited experience conducting interdisciplinary research. Each supervisor will, of course, make valuable contributions to your work, but these may be limited to what is feasible given the constraints of the project. It is then up to you to decide which approach is best, or how to combine these approaches. Tying the threads together into a unified narrative (e.g. a thesis), or even a presentation or poster, can be difficult. There's a lot more background to cover, justifications, definitions, considerations, and linking each of these across two or more different fields of study. For example, the word 'interaction' means one thing to psychologists, and a slightly, but crucially, different thing to computer scientists. Because I use both terms in my thesis, I have to tread extra carefully with my terminology, making sure that people from both fields can make sense of my work.

In postgraduate projects, one supervisor may bear more weight in terms of project management, such as having a principal supervisor. You might also find yourself feeling more closely aligned to one supervisor (regardless of authority), because they share the same background as you. This can change the supervision dynamic and quickly make things difficult for meetings and progress, so do be aware of this. I have two supervisors, and their offices are across campus from each other (which means at least a 30-minute bus journey), so I can't just drop by and chat. It's really easy to unintentionally alienate a supervisor by forgetting to respond to emails or sending them a carbon copy (CC). You can combat this by becoming extra vigilant on feedback and project updates, keeping minutes of meetings and sharing these with both supervisors, and having regular meetings and check-ins with supervisors on their own and as a team. Obviously, some of these suggestions are supervisor and situation dependent, but the student should be proactive at maintaining a positive relationship with both supervisors throughout their postgraduate research, which can easily slip when their distanced both disciplinarily and geographically.

Disseminating results to different groups

Some conferences really focus on interdisciplinary work, but most of the time you can expect the majority of conference attendees to come from the same area of research, with the same knowledge, expectations, and opinions of what constitutes 'good (enough) research' within one singular field. One of the trickiest things in an interdisciplinary PhD is tailoring your work to a specific audience, especially when that audience is only knowledgeable about part of your work. It can be hard to make your research seem relevant in this case, without chopping up your work into pieces and losing the essence of why the multidisciplinary contributions are important. For example, I just finished quite a big part of my data collection on a project which uses methods from learning sciences to answer questions about human-computer interaction with relevance to practitioners and I'll never find the space to present this as the one, innovative, multifaceted project that it is. Instead, I will have to chop and serve this up to learning scientists, computer scientists, and psychologists separately. Different disciplines also have separate stylistic requirements for presentations (even posters look different!), and their own language and terminology. Additionally, feedback received at different conferences can also vary, and some of the suggested directions of your work might not be feasible in your project timeline. Don't immediately discard it though, it might be useful when it comes to writing discussions and coming up with future directions for other people to chase up.

Another challenge, for me personally, is feeling 'out of place' at large conferences in one area or topic. I went to a technology session at a large autism conference recently and was the only person presenting there who had not designed a new piece of tech. I was instead presenting work on how existing technologies could be used to support autistic children. Next

to my poster, was this whimsical 'dancing robot' which people queued up to see. Even when the robot broke in the middle of the session, people still didn't really come and read my poster. Was my work unimportant? I don't really think so. Was I at the wrong conference? Maybe, however, I still managed to have interesting conversations with the few people who did come and see my work. In fact, being possibly out-of-place meant that I got some confidence boosts from explaining things that are really obvious to me (from a psychology perspective) which were not so obvious for others (from a design perspective). And at least now I know the audience of that specific conference section a bit better, so I have a more accurate expectation for future years and can prepare a bit better. With every challenge comes an opportunity, and if I had to give one piece of advice it would be to go to conferences and workshops (even before you have work ready to present) as early as you can, so that you gain some insight into what their presentations are like and what kinds of people are presenting there. And sometimes, you can even meet people doing similar things to you but just from the other side!

Multidisciplinary imposter syndrome

Knowing what you don't know is a large part of the battle during postgraduate research. It can be deflating when you are synthesising multiple gaps of knowledge across different areas of research. It might feel like your job is to now stitch together the two disciplines and somehow mend *all* of the gaps. It is not your job to do this. Multidisciplinary work takes longer to scratch the surface, because there are often more problems to be identified, and working across disciplines usually takes longer.

I think that there is a risk in multidisciplinary research to feel a stronger sense of imposter syndrome, because of the expectations that arise from such work. On one level, expectations are inflated because you are expected to learn more, contribute to a more niche area, and because interdisciplinary research is viewed extremely positively across the board. On the other hand, interdisciplinary research often leads to rich, complex data which is hard to interpret and asks more questions than it answers. It is grossly underestimated how difficult interdisciplinary research is to do, especially during a PhD project. When you're learning twice as much about what you *don't* know, that's pretty tough.

There's no real quick fixes for Imposter Syndrome unfortunately (that I know anyway), I think it takes a real reflective process to make deep changes. The best tip I have to offer is to really try not to regularly compare your project to other people's projects, particularly when on the surface they look more linear or neater than yours. It's important to give credit to yourself on the *process* of doing a PhD, and not put the weight on the final products (e.g. the papers, the presentations, the corrections). I think it's easy to fall down rabbit holes on an interdisciplinary PhD because you have more 'stuff' to learn and research, and you might get more 'unexpected' findings (rather than if you ask a research question that has a 'yes' or 'no' answer). The only advice I have is to spend some time every so often going back to the roots of your PhD. Get your research questions nailed (as much as they can be) and practice writing and verbalising responses to questions that frequently come up. Defend not only what you are doing, but also what you are not doing. Keep learning from and involving both disciplines, and ask for regular feedback from supervisors on ideas, directions, and even quick 'musings' that you have. It's all going to be useful, not just for the thesis, but also for you.

Preparing for the future

You may feel as though you don't have a good role model for conducting multidisciplinary research, or you don't expect to find a job or position which continues the intersection of research that you're doing. However, skills gained during PhD are highly transferable and core research skills such as dissemination, analysis, and critical thinking become second

nature when you're forced to do this so regularly at meetings, conferences, and throughout the project. In some ways, skills from a multidisciplinary PhD are more transferable because you'll be doing much more of the above, by virtue. It might not be possible to continue your project or stay at your research intersection during immediate post-doc years, but you can have a vision what you would like to do in the future. Keep a copy of your CV and take some time every quarter or so to update it with relevant skills and credentials. These things can be hard to remember when you're busy and learning so many new things, so keeping yourself grounded is really important. If you're anything like me and don't really know what you want to do when you *ahem* 'grow up', then keeping a fresh CV ready to fire at a surprise opportunity is handy.

Final remarks
In this section, I'll give some targeted advice that I would've given to myself when I first started my PhD. Doing an interdisciplinary PhD has been incredibly rewarding and fascinating for me and as always, the highs are more frequent than the lows.

1. *Keep on top of what you've done.* As I've mentioned throughout, it's good to keep track of all the things that you've done. Keeping on top of meeting minutes, keeping your CV up to date, and refreshing the main questions of your PhD should help with some of the derailing that happens during postgraduate research. Things are prone to change, but when you come up with surprising results, have an idea for a future project, or suddenly make a link between two ideas then *note it* because it'll disappear when you have the next thought.

2. *Engage with others – in both disciplines!* Keep your mind open, and don't be tempted to remain 'faithful' to a discipline you know well (for me, psychology). It can be tempting to avoid events which don't seem relevant, but even learning some general background in your 'new' or 'additional' discipline does no harm. And sure, sometimes you might go to an event you didn't take much from but that's still something learned, and maybe a free coffee or lunch to boot. Strike a balance between making the most of learning opportunities and identify what is important and useful for you *and* your PhD.

3. *Enjoy it!* If you've come this far in studying, it's fair to assume you must enjoy learning *a little* bit. In an interdisciplinary PhD you have more excuses to dive into ideas and areas you're less familiar with, and you get to meet a wider variety of people across disciplines. Relish this opportunity and make the most of it. There's so many different places that interdisciplinary research can take you, so do get stuck in.

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The Valley of S**t: How to cope when you reach research rock bottom

Catrin Pedder Jones

*The Valley of S**t is a term for the commonly experienced period of struggle and loss of motivation within postgraduate study. This article describes it, outlines how we may end up in it and provides workable strategies for coping when you find yourself there.*

It seems that at some point during our postgraduate journey, we all hit a slump. A period of time when we lose motivation, struggle to see the point of our research or an end to our difficulties (Thesis Whisperer, 2012). I hit this point myself at the start of my second year of PhD study and was trawling the internet to find sources of comfort, when I stumbled across 'The Valley of S**t' (TVOS)! Coined by the Thesis Whisperer (Associate Professor Inger Mewburn at the Australian National University), 'The Valley of S**t' describes a time in postgraduate studies when you feel lost (Thesis Whisperer, 2012). For me, this was a Eureka moment, a hug in word form that helped me realise I was not alone in my feelings. To help pass on this Eureka moment, in this article I will explain what TVOS is, why we end up there and most importantly how to get out.

What is The Valley of S**t?
The Thesis Whisperer defines TVOS as a time when postgraduates lose confidence and perspective in their research and/or their research journey. This leads us into a metaphorical valley piled high with stressors (e.g. deadlines, teaching, writing, conducting experiments) which we cannot see an end to, and it stinks!

How may we end up there?
Speaking to fellow postgraduate students, all of us seem to end up in the valley at some point. Hitting TVOS was a tough and scary time for me. I changed from a positive, passionate and driven person to believing I was no longer good enough to be doing my PhD. Imposter syndrome hit me hard and it was very difficult to see a way out of it. The main reason I entered TVOS was a challenging NHS ethics application process. Other examples of triggers for a slide into TVOS could be experiencing rejection or critique, timeline delays, overwhelming deadlines and workload, or unsuccessful experiments. Postgraduate study is hard and TVOS is a side effect of how challenging it can be. Fortunately, however, if you keep on trudging through the valley you will eventually reach the beautiful sunshine on the other side!

Is this TVOS or something more serious?
TVOS is not to be confused with mental health difficulties that need professional help. A relatively simple way to distinguish between TVOS and something more serious is to look at what exactly is causing your struggles. TVOS is limited to your studies; a sign of something more serious is if you are struggling to function in your downtime as well as in your work hours. If you are in anyway unsure whether you're experiencing something more serious than TVOS, please seek professional help.

How do I get out of the valley?

The first thing to do while you are in TVOS is, as the Thesis Whisperer writes, is to just keep walking. Keep writing, keep doing and keep ploughing on. This is good advice, but how exactly do we do this?

Step 1: Understand your degree, your supervisors and yourself

The first step to climbing out of TVOS is to reflect on how you got there in the first place. Spend some time writing down what you are finding challenging about your studies. By making your struggles tangible you will be better positioned to address them. Following this, take some time to write down any traits, characteristics or behaviours that have contributed to falling into TVOS. Perfectionism, procrastination and fear of failure are common amongst postgraduate students. Gaining some self-awareness of these can help you find ways to help yourself.

Step 2: Understand you are not alone

The next step is to search for fellow travellers in TVOS by searching for online forums, blog posts or tweets written by those who are also struggling. Reading other people's accounts of the challenges you have faced will help to reframe your own as an inevitable part of the post-graduate student journey, rather than a flaw in yourself. Personally, this was a great source of comfort to me, knowing we were all in TVOS together. An even better extension to this step is to have some honest conversations with fellow postgraduate students. Developing a support network of people who really 'get it' is invaluable.

Step 3: Generate practical strategies

Each student's postgraduate experience is so unique that you need to create personalised, practical strategies for tackling your specific challenges. In this step you should revisit your writing from step 1, and collaborate with your new friends in step 2. The aim of this is to create and search for workable strategies you can implement into your day-to-day life. I will share some of my own strategies below.

Perfectionism. A document does not need to be proofread three times on three separate days before it is sent. Send materials for supervision after one proofread and journal submissions after two proofreads (Antony & Swinson, 2009).

Imposter syndrome. Feeling like you will never know enough can cause you to spend far too much time reading irrelevant articles/theories. To counter this, clearly define the areas of research or theories to review before you start (Parkman, 2016).

Lack of work-life balance. A lack of structure and freedom to work when and where you like can lead you to work at weekends and evenings. Set boundaries, for example, I take at least two days off a week and work can only span the hours of 9am–5pm. However a colleague of mine can only start work once their household tasks for the day have been completed, often working from 4pm till late in the evening. The key is to develop a routine that works best for you (Hayton, 2015).

Student mind-set. Ditch the 'assignment' mind-set. A critical element of postgraduate study is that learning and assessment is continuous. It is impossible to sustain undergraduate-style Red Bull fuelled all-nighters when your submission date is three years away! A good tip when starting out is to write 500 words every day on something relevant to your end thesis. This may not be practical during data collection however, but small goals built over time will lead to fulfilling much larger ones (Kearns & Gardiner, 2013).

Resilience to feedback. Read feedback immediately after receiving it and then do nothing on it for at least one week. The week will give you time to process feedback and calm any automatic defensive responses. Revisit the feedback and action it constructively in your work. For verbal feedback this is more difficult, however a good strategy is to nod, say thank you that is very helpful and revisit the feedback at a later date (Thesis Whisperer, 2014).

Postgraduate study defines you. When you dedicate so much of your life to studying you can lose yourself along the way. To counter this, start a new hobby or revisit an old one that is not too mentally taxing (e.g. adult paint-by-numbers!) (Peironcely, n.d).

Not all of these strategies will be relevant to you; we are all different people. My challenges are based on doing a PhD, whereas friends undertaking clinical doctorates have different challenges, for example, a limited time to complete assignments, switching off from difficult clients and the lack of routine from changing placements every three months. What I hope however, is that this article highlights how understanding your unique circumstances is the first step to understanding TVOS. The primary ways out are to identify strategies that work *for you,* and to develop a support network you can turn to when it all becomes too much. The final point I will make is the power of being vulnerable. Be open about your struggles within TVOS with as many people as you are able. Some may be struggling silently and your openness could be the ladder *they* need to finally climb out of TVOS.

Acknowledgements

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Facing the challenges of postgraduate study as a minority student

Nihan Albayrak & Celestin Okoroji

Postgraduate studies bring their own burden to many students, yet minority students find themselves confronted with some unique challenges. Acknowledging that this problem lies in the system rather than the students themselves, this article offers some personal strategies that may be helpful for dealing with these particular challenges.

Being a minority student means differing from a larger group of students in terms of some unique (mostly disadvantaged) characteristic(s). You can be a minority because of being differently abled, young or old age, nationality, religion, gender, sexual orientation, socioeconomic background/status, or being the first one in your family to have a postgraduate education. In this piece, we will approach the challenges that minority postgraduate students experience from three interrelated perspectives: Social, Academic, and Financial.

Before we begin, we want to clarify that many barriers that postgraduate students face are structural, they are not your fault and you should not, as a consequence of being a minority, have to do things above and beyond what others do to succeed. However, since those structural barriers do exist, there are some strategies that you can use to support yourself and improve your wellbeing during your time at university.

Social challenges

There are many social aspects of postgraduate life that minority students may feel uncomfortable with from time-to-time and many of these are intertwined with each other. To begin, the lack of cultural connection with other students and academic staff can make you feel as if you do not belong in your programme, degree, or university. Certain knowledge and practices, which are unfamiliar to you, may be taken for granted by others and vice versa. It can be daunting to find out that there are few 'people like you' around, and you may find yourself asking whether you are in the right place or even doubting your ability. If imposter syndrome (Kolligian Jr. & Sternberg, 1991) strikes, which it does for many minority students, focus on the fact that your journey may be different to others but you have gone through the same selection process as them. So, if you have been selected, then others have faith in you and believe that you are a capable student and researcher.

In addition, trying to find some other connections with your fellow students and academic staff may be helpful. Being interested in the same topic or having the same hobby, whatever it is, will help you to settle into your new environment. In doing so, it is, however, crucial not to compromise who you are. That is, you do not have to change yourself to have these connections with people in your new setting.

Hearing about other people's research and telling them about yours is another good way to start conversations and find common ground, both at the theoretical level but also on a social level. Our research interests often relate to our interests and experiences in other areas of our lives and will allow you to make connections with other students who have similar interests to you, even if their other characteristics are very different from your own. Conversations about research interest will occur naturally in the university space, so it's not burdensome in the way that 'networking' can feel.

Sometimes you may feel like you are assimilating to the dominant culture at your university, by losing your cultural values and becoming just like the people around you, in that part of your life. This may result in identity confusion because you could feel like you have two separate identities, W.E.B. Du Bois called this 'double consciousness' (1903/1968; Gilroy, 1993): One is for home when you are with family and the other one is for the university when you are with your colleagues and professors. The continuous shifts between these two identities may cause you to feel a lack of certainty about who you really are. Following this, you can end up thinking that you do not really belong anywhere.

Here, it's useful to consider that you belong to two places that happen to differ from each other. Creating some ways to relate these contexts to each other is a good strategy for dealing with the anxiety that this invokes. Perhaps, you could invite your university friends to cultural gatherings which relate to your background and give them a chance to know your 'home identity', or you could have your family or friends visit you at the university and make them see your 'university identity'. In the end, any interaction between people from these two environments can make you less anxious about where you belong.

Academic challenges

The reasons for minority students experiencing academic challenges are in fact very similar to the issues causing social challenges. The lack of cultural connection with the curriculum and the lack of role models in academia are both due, at least in part, to shockingly low levels of diversity in academic staff (Alexander & Arday, 2015). It is important to remember as a minority student (or even as a student in general) that each one of us has our own struggles and achievements that brought us to where we are.

Some people may have similar pathways, but having a unique one that differs a lot from others' is not a limitation. It may cause you to experience different academic challenges than most students, but it can also help you to develop some other skills and insights that others do not have. For example, some students might be more familiar with the literature used in your course because of their cultural backgrounds or previous education. Yet, you may be the one with the most insightful critical angle on the literature because of your unique perspective. In any case, consider that the academy is a space for learning and creating new knowledge. Objectively, there is no prerequisite cultural or demographic characteristic which dictates our ability to do that.

Your motivations for entering postgraduate education may also be different from others'. For instance, if you are a first-generation student, having a postgraduate degree might have different meanings for you compared with someone whose parents are academics. The weight of expectation from others and your own need to make your family and friends proud will add extra pressure on your shoulders to be successful. However, it could also motivate you to work harder. Recognising your own reasons as solid reasons and being strengthened by them instead of weakened may be another strategy to keep you on track and motivated through difficult periods.

Financial challenges

Finally, minority postgraduate students – especially those who are working class or international students – might have particular financial challenges that significantly differ from the usual economic struggles of postgraduate life. You may have to support yourself or your family during your studies by getting a part-time job. Furthermore, you may miss out on academic opportunities, such as attending conferences because you do not have enough money and not doing unpaid internships because you cannot afford to work for free. In addition to these, you may have to skip some job prospects or international meetings because of visa restrictions. However, there are still some ways to deal with such financial challenges.

Asking your supervisor, department, and the university about the possible funding opportunities can be the first and easiest thing that you can do; don't shy away from this, it is normal to ask for and receive funding from your university for research purposes. You could also check the research and travel grants offered by various academic organisations (e.g. BPS Postgraduate Travel Bursary), which could support your research and allow you to attend conferences. You could also collaborate with an organisation (e.g. public, private, charity, non-governmental organisation) to conduct research on a topic you are both interested in. It could also be beneficial to look out for scholarship opportunities that are specifically designed to support minority students (e.g. SPSSI Dalmas A. Taylor Memorial Summer Minority Policy Fellowship) – though unfortunately there aren't many. Any funding you get through scholarships, grants, or collaborations will look good on your CV.

Finally, keep your eyes peeled for research and teaching assistant jobs in your university. These jobs usually pay well, but be sure not to take on too many hours all at once, so you can save time for your own studies. In all, asking for support and being aware of numerous possibilities may seem exhausting but, in the end, you will gain a lot, both financially and academically.

Conclusion

Difference is important to a conducive critical academic environment. Especially in psychology, a key understanding is that people's experience and knowledge are different and bringing those differences to bear on research is useful for enabling new understanding and interpretation of the world. Let your difference be your inspiration. Instead of trying to change yourself to fit in, try to bring your own culture and knowledge to enrich discussion. It is not you or your difference that is the problem in the higher education system. If you begin to question your abilities (more frequently than your peers), try to focus on how your distinctiveness is really one of your greatest assets and do not hesitate to seek help or support.

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'Is this doctorate ever going to end?' A survival guide for getting through the final stages

Suhana Begum

Completing a professional doctorate can be a rewarding but challenging process. This article provides advice on how to keep the motivation up when you are in the midst of it.

Professional doctorates are becoming increasingly popular and offer a novel way to gain a higher qualification and enhance your career. Completing any doctorate requires determination and hard work. In this article I will provide helpful tips for postgraduate students to help manage the professional doctorate and encourage you to persevere until the very end. I have drawn upon my own experiences, as well as other useful advice I was given by peers.

General doctorates

This section will focus on generic advice for completing a doctorate in any discipline.

Studying and working

A professional doctorate is undertaken alongside full or part-time employment and PhD students may also be working whilst studying. Good time management skills are essential in balancing the two. You need to ensure you are organised and on top of deadlines in both areas. Using project management tools may help you to organise your time. This could be as simple as using a diary and notebook to record your tasks and set deadlines, or electronic means such as Trello. Trello is free and simple to use on a laptop or mobile device. It allows individual projects to be listed with milestones working towards the final deadline. It also allows you to view your projects together as a Gantt chart or on the calendar, to gauge your workload at any given point.

Try to seek out opportunities to complete the competencies during work time by talking to colleagues and reading organisational bulletins to keep abreast of projects taking place in your organisation. Look out for ways you can demonstrate your skills, such as through conducting evidence reviews for colleagues starting new projects. This could form part of the research competency.

Make the most of time that is ordinarily part of your day. For example, use the time in your daily commute to read and make notes on an article or even write up short pieces of work. Writing can be stored as draft messages or emails on a smartphone and later transferred. Set aside a small amount of time every day (for example 30 minutes) and dedicate this time to working on your doctorate. Ensure you stick to this everyday if possible. You will be surprised at how much can be achieved within a short but focused session!

Explore whether your organisation has a flexible working policy. Are there opportunities to work extended hours across part of the week and later take time off in lieu (TOIL)? This can be especially helpful when you require large blocks of time for doctorate work. Alternatively, consider starting work earlier in the morning or staying late in the evening and using that time to focus on doctorate work when the office may be quieter.

It is also key to establish a good working relationship with your supervisors and managers,

both at university and at your workplace. Balancing studying and working can be challenging and you need to be able to seek advice and support. Having regular supervision meetings is crucial for your progress and addressing any doctorate or practice related queries you may have. Having a good relationship with your manager is also important in ensuring you are supported at work and organising flexible working arrangements.

Maintaining a work-life balance

It can be very tempting to dedicate every waking moment to writing or other doctorate-related activities in a bid to complete it faster. However, this is unproductive in the long run. Completing a doctorate is a marathon and not a sprint! Schedule in regular breaks, and have at least one day a week where you are able to do something to relax and unwind. Plan something enjoyable with family and/or friends and use this as motivation to work hard beforehand. Set a limit as to how many evenings a week you will work on your doctorate, ensuring you leave at least one weekday evening for recuperation. If you do work in the evenings, make sure you finish in good time in the evening so you can unwind before going to bed. Getting enough sleep is key to maintaining energy levels.

A good diet and regular exercise are also vital for ensuring you maintain your energy levels. Avoid the temptation to snack on high sugar foods (such as biscuits and cakes) and try to be as active as possible. This could also be incorporated into your everyday routine, such as walking more. Apps like Active 10 can help track activity levels throughout the day. Schedule in time for self-care activities into your daily/weekly routine. This will make you feel better in yourself overall and feel less like the doctorate is taking over your life! A doctorate is a lengthy process and taking care of yourself throughout is essential in order to last the distance.

Maintaining motivation

Keeping your motivation up throughout the whole doctorate can be challenging, particularly the closer you get to the end! Looking at tasks overall (such as conducting a whole systematic review or writing an article) can seem overwhelming. Break tasks down into smaller milestones and celebrate or treat yourself to something enjoyable after you have reached each one. Concentrate on the task at hand and what needs to be done to reach the next stage.

Peer networks are really important at all stages of the doctorate and they can be an essential source of support. Keep in touch via email or social media with other people on your course, in the same school or even friends at other institutions. Use them as a sounding board for your worries and concerns, and encourage each other to keep going until the next deadline. Sometimes you can feel isolated when doing a doctorate and discussing concerns with those in a similar situation to you can be reassuring. This can also be a useful way to discuss ideas for completing the competencies/other pieces of doctoral work.

Preparing for your viva

The viva will be the most anxiety-inducing event within your doctorate, but if you prepare well, this does not have to be the case. Most supervisors will offer to do a mock viva with you but if they do not, ask them to do one. This is a great way to practise answering questions in a pressurised environment. Prepare a three-minute summary of your work, highlighting the rationale, aims and your contribution to the literature. This is often used by examiners as an ice breaker question at the start of the viva. Look through your work and think about the questions you would most hate to be asked and prepare answers for those. It is also a good idea to find out more about your examiners. Look through their recent work to give you a sense of the stance or viewpoint they are likely to take. For internal examiners (and external examiners where possible) speak to colleagues who may have been supervised by them or have worked

closely with them. What concepts are they most interested in or likely to notice? If it is relevant and appropriate, reference your examiners throughout your work.

In the viva, be positive about your work and highlight what you have achieved throughout. Be prepared to explain your rationale and defend your decisions, but do not be too argumentative. If the examiners have pointed out an alternative way to do something, acknowledge it and reflect on how you could have applied this in your research. Talk about your contribution. What have you added to the field of knowledge through your study? You could have used a novel method or taken a different theoretical viewpoint, for example.

Finally, ensure you get a good night's sleep before your viva. It is tempting to revise and look over notes until the very last minute but this is unlikely to be of any real benefit. Wrapping up your preparation a day or two before and spending the time immediately before the viva to put yourself at ease is the best preparation you can do. Just remember: you and you alone have spent the last however many years of your life working on this doctorate and no-one knows it better than you do!

Thinking beyond the doctorate

For most people, the end of the doctorate is often the most stressful part. At this stage, it can feel as though the doctorate is never going to end and anything beyond that can seem so far away. However, it is important to start thinking about the next stages after completion and making contacts with other researchers and organisations you may one day collaborate with. It is important to connect with other projects and events going on within your university and the wider academic network. Look out for and attend conferences, meetings and other events. Universities and conference organisers usually have conference and travel bursaries available. Meeting people within your field at different stages of their career is an excellent way to learn and make links with people who may one day be your future colleagues. Networking can be further enhanced by using tools such as Twitter and LinkedIn to make and maintain contacts. It is easy to solely concentrate on your work and block out everything else, but this may mean missing important opportunities. This is also vital in establishing contacts for opportunities after completing your course.

Health psychology

This section is going to focus specifically on completing a professional doctorate in health psychology, where I will draw on my own experiences. The tips above will be helpful, as well as the following tips regarding each of the five competency areas.

Completing a professional doctorate is one route to obtaining chartered membership to the British Psychological Society (BPS) as a health psychologist. My main piece of advice is to plan, plan and plan again. Be realistic about how much time you can dedicate each week to studying. Make a plan for each area of work and think about where tasks can overlap. For example, you should prioritise obtaining ethical approval as this can take time but what other work could you be doing alongside it? Things always take much longer than you think, so schedule in contingency time to avoid falling behind.

Research – conducting a research project and systematic review

This competency will form the biggest part of your portfolio and so naturally most of your time will be dedicated to this. For the research, start putting your research tools and materials together and submit your study for ethical approval as early possible. This will set you in good standing for the remainder of the research project and ensure you have the maximum time available for data collection. Seek advice from your supervisor and be realistic about what you can hope to achieve within the scope of the doctorate. Try to write up as you go along, even

if it is just a draft version. For example, the introduction and methods sections can be written very early on and edited once the other sections have been completed.

For the systematic review, keeping detailed notes and records of your searches is essential. Do not delete or replace search records (e.g. Excel spreadsheet); always save these as new versions. The files can be archived to avoid confusion. Having previous versions available for reference can save hours of work if something does not quite add up – it usually means you can go back to the previous version of the document to identify the error rather than starting again.

Behaviour change interventions – designing and implementing interventions to change behaviour

The intervention must be evidence-based and theory-driven. The most important aspect of this competency is to be explicit about how the behaviour change theory has been applied within the development of your intervention. Within your write up you will need to clearly demonstrate this link. This can be done using a table or diagram with the theory component in one column and the translation of this in the intervention in the next. You will also need to acknowledge the limitations of your intervention. Behaviour change is complex so be realistic about what the intervention can and cannot achieve.

Consultancy – using your skills to support others

Let people know what you are doing and offer your skills. For example, conducting a robust evaluation for a project is really important, but is often seen as cumbersome or difficult. You could offer to support them, increasing your skills and experiences in a new area. There are also external companies, such as Modus Outcomes, who can be contacted for small-scale consultancy projects. In the write up, reflect on what you have learnt throughout the consultancy and what you would do differently next time.

Teaching and training – teaching health psychology and training others to deliver psychological interventions

Similarly to consultancy, offer your time and expertise to people. Contacting staff within your department at university can be an excellent way to get teaching opportunities at various levels within the university. Staff will often be keen to have extra teaching support, especially if that means there is one less lecture they have to deliver themselves! You can also look for training opportunities at your workplace in a similar way. Talk to your colleagues and offer to deliver training, demonstrating how it can be beneficial to their work.

General professional skills – workplace skills, including ethical considerations

This is usually compiled at the end of the doctorate and is used to showcase your development as a practitioner. It is essential that you are able to demonstrate an understanding of the ethical guidelines to which psychologists work, such as those from the BPS and Health and Care Professions Council (HCPC). Include any guidelines or codes of conduct that may be relevant within your workplace, such as data regulations. You must be able to demonstrate that you are adhering to professional standards and guidelines in all areas of your work.

Conclusion

Doing a doctorate is both challenging and rewarding and the tips and advice outlined in this article will hopefully have been useful. Above all, remember to *be kind to yourself*. Take the opportunity to regularly reflect on your achievements and how far you have come in the last six months. Congratulate yourself and celebrate your milestone achievements. Studying at a

postgraduate level whilst working is a good way of getting higher level qualifications alongside relevant work experience. You will gain numerous transferrable skills. But it also requires determination, good organisation and strong time management skills. Be prepared to work hard and expect to make some sacrifices along the way. Nevertheless, the end result (and no doubt the journey itself) is very rewarding!

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Useful links

Active 10 – Information about walking as a way of maintaining good health, including an app to monitor this. https://www.nhs.uk/oneyou/active10/home

British Psychological Society – Health psychology information. http://www.bps.org.uk/careers-education-training/society-qualifications/health-psychology/health-psychology

Health and Care Professions Council – Regulatory body for practitioner psychologists. http://www.hcpc-uk.org/

LinkedIn – Networking tool. https://gb.linkedin.com

Modus Outcomes – An organisation offering specialised consulting services to measure the benefit of medical products from the patient perspective. https://modusoutcomes.com/

Trello – A useful tool to manage multiple projects simultaneously. www.trello.com

Twitter. https://twitter.com/

Writing for success: The thesis

Ramona Rusu & Claire Melia

When writing at PhD level, postgraduates are dealing with their most substantial and complex piece of work, in both time and size. From macro-level advice on general ordering of the thesis, through to specific advice on structuring your chapter headings, this article will guide the reader through the key aspects to consider in writing your thesis.

During postgraduate study the thesis represents the culmination of three years of work, written by yourself under the guidance of one or more supervisors. It is also a piece of work that you have a significant amount of freedom and control over. In contrast to a typical essay or journal article, the PhD thesis has no specific order or guidance on how to format it. With such a large word count and a lot of academic freedom, the thesis can be a very daunting prospect. In this article we provide advice for writing up your thesis to help make the process less intimidating.

Planning the structure of your thesis

The most vital, yet underrated, aspect of writing your thesis is to plan. Create an initial plan as early as possible. This may simply consist of the standard headings with an estimated word count for each section (Oliver, 2013). This will also give you an idea of how you might structure your thesis and how the different aspects of your project fit into each of the sections. This is a crucial step in ensuring your thesis reads coherently.

A thesis will usually follow the structure of a research paper and guide the reader. Typically, the thesis begins by identifying a clear gap in the field, leading to a well-defined hypothesis or research question (Day & Gastel, 2012). The remainder of the thesis concerns the specific project, providing an epistemological and methodological overview of the project followed by the results of the project, with a discussion of how the findings fit into the wider literature and contribute to the field (Cals & Kotz, 2013). While all these elements will exist within the thesis, the exact order can vary significantly depending on the methods used, the number of studies, or even whether you are completing a traditional PhD or a PhD by publication. You will find it helpful to read previous PhD theses on a range of topics. Try to read theses from individuals who have used a comparable method and/or project outline. However, it is ultimately your project and your thesis, so format your work the way you find to be most understandable for the reader.

While we advocate for planning the thesis, this is only a guide. Much of the writing in a PhD thesis is related to what has been achieved during the project and can often change throughout the process so don't worry too much about sticking rigidly to your initial plan. Your plan and the thesis itself will change and will adapt alongside the project, making it a much stronger piece of work.

General tips

Once you have decided the structure of the thesis, the next stage is to begin writing. Whilst there are a variety of ways to write and format your thesis, there are a few general pieces of advice that are important for all postgraduates about to write their thesis, irrespective of design and methodology.

Formatting the thesis

With the exception of short citations for which English translation is provided, the thesis must be written in English, and then presented in a good quality A4 paper and is generally printed

only one side. The thesis must be approximately 80,000 words in length, excluding the table of content, diagrams, figures, tables, any appendices, and references. Prior to starting writing your thesis you should contact your school/department or check your research handbook as all universities have slightly different regulations.

Consistent narrative

A PhD project will often consist of multiple studies. These different studies may utilise very different methods and approaches and it can be difficult to write this up coherently. It's important that the thesis is written clearly and coherently as one project. This can often be one of the most difficult aspects of the thesis. Ensuring that an 80,000-word piece of work is coherent is no easy task.

One of the simplest methods of creating consistency is to relate each section directly back to the research question. Make sure that in each section, you make explicit how this aspect of your project helps to answer the research question (Turbek et al., 2016). Finally, you will likely write your thesis chapter by chapter and not necessarily in a chronological order. The aim here is to not make this noticeable to the reader. Make sure to read through the thesis once a full draft is complete to check it flows coherently as one larger piece rather than reading a number of different sections.

Depth, not breadth

Within the literature review section of the thesis you must consider the general literature around the problem, providing sufficient background information so that your research makes sense in the broader context of the field. Once you have passed your PhD you will be considered an expert in this particular area, and as such you must demonstrate this expert and in-depth knowledge throughout your thesis (Rüger, 2016). However, you must remember that your audience is not an expert within the field, and all concepts should be explained adequately in order to be understood by all readers, from novice to experts in the field. One suggestion to check that the thesis has been written at an appropriate level is to have both your supervisors and a friend or family member read through it. Ultimately, both readers should be able to understand the overall project.

Signposting

While reading a postgraduate thesis, the most prevalent source of misunderstanding is generated by the wrong expectations. Clear signposting within the thesis will help the reader keep on track with the ideas presented. The most obvious signpost is your title. It is important to provide an informative title, which succinctly tells the reader about the problem studied and the type of method used (Rüger, 2016). Additionally, future employers are unlikely to read your entire thesis, but the title and abstract should be succinct and informative enough to help them understand your research focus.

Further headlines throughout the thesis, benefit from being specific. Using the structure headlines tell little about the content. Subject headings like 'Personality' and 'Self-esteem' are more informative and preferred over nondescript headings. Use clear signposting to keep the reader on track and let them know what you plan to discuss in each section. Further signposting within these sections is also useful. Do not be afraid to use a structure level, including numbered subsections. Each subsection should deal with a specific element of the project and clear signposting will help make the chapters easier to read and follow.

Conclusion

Throughout this article, we have discussed a range of considerations in preparing your thesis. From how to format the overall structure of the thesis, through to structuring sub-sections and ensuring coherence. Whilst we have provided some guidance here, there are also a huge

number of books and online sources which can provide further insight and help. The overall guidance we would like to emphasise that your thesis is very personal and you should structure and write it in a way that is right for yourself and your project. Writing your thesis is neither an easy nor quick task, but it should be enjoyable. This is the final part of your project, it is the culmination of at least three years of hard work, and is a piece of work you should take pride in. Most importantly, enjoy writing your thesis.

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Science http://www.sciencemag.org/careers/2018/04/how-write-your-phd-thesis

The Guardian https://www.theguardian.com/higher-education-network/blog/2014/aug/27/finishing-phd-thesis-top-tips-experts-advice

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'Congratulations, Dr!': Surviving and thriving in your viva

Maria Raisa Jessica (Ryc) Aquino & Claire Wilson

Essential to obtaining one's PhD is the oft-dreaded viva voce, which is the culmination of years of learning to become an independent researcher. This article seeks to provide practical guidance on preparing for, and successfully completing the viva.

As a UK-based PhD student, it will come as no surprise that upon submitting your PhD thesis, you will be required to undertake a *viva voce* (viva) or oral examination of your research. Despite knowing that this is an inevitable part of the PhD process, the viva can feel mysterious and is often left for discussion towards the end of your project (Morley, Leonard & David, 2003). Anecdotes from those who have completed a viva may describe dispiriting experiences, which can negatively impact your own confidence (Carter & Whittaker, 2009; Grabbe, 2003; Wallace, 2003). Although each viva is unique, in this article we aim to demystify the process through sharing our learning from our viva experiences and using relevant literature. Further, we aim to promote the view that the viva should be considered an exciting opportunity to discuss your work. To do this, the article will outline how to prepare for the day, what might happen during the viva and what might be expected of you afterwards.

Viva Preparation

Depending on your institution and the schedule of your examiners, you will usually be notified of your viva date six to twelve weeks in advance (Carter et al., 2009). Be sure to check with your institution (e.g. your course administrator, or graduate/doctoral school) for specific viva procedures and guidelines. At this point, you might want to start preparing for the viva. Note that how much preparation time you allow yourself is completely up to you and will be different for everyone depending on your situation and viva data. For example, you might have just started a new job and relocated elsewhere. The main consideration is *how* you prepare in the time that you have. We suggest that the first step should be to re-read your thesis. Of course, you are an expert in the area and will know your thesis well. However, there might be sections or chapters that you wrote many months ago and it is important that each chapter is fresh in your mind. You might consider printing a paper copy of the thesis that you can annotate, alerting you to important points and sections within chapters. Use this opportunity to proofread your work and note all the corrections you wish to make.

It is common at the start of the viva to be asked to summarise your thesis. After re-reading your thesis, try to produce a concise overview of the main aims, findings and conclusions of your work. Having a well-thought out summary will help you feel at ease and think about the story your thesis tells. You might try writing one, three, and five minute summaries of your thesis, and rehearsing each of these.

Next, it is important to read your work critically. Your research will have strengths and limitations, and it is crucial that you are prepared to discuss both. Search for common viva questions online and prepare answers to these questions. The University of Manchester provide a comprehensive (though not exhaustive) list of viva questions: http://blogs.humanities.manchester.ac.uk/humsresearchers/2009/11/06/how-to-survive-your-viva/. There are also other tools (see Resources), such as Viva Cards, which offer a set of general questions for each section of the thesis. This can be useful for when you'd like to be quizzed by those

who might not necessarily be familiar with what viva questions are like. You might also want to use mind mapping to link your findings with the relevant (recent) literature using a visual format (Davies, 2011). This could also be helpful for pictorially representing your line(s) of argument throughout the thesis. At this point, it can be useful to talk to your peers who have been through the process and may have general viva questions they can share with you.
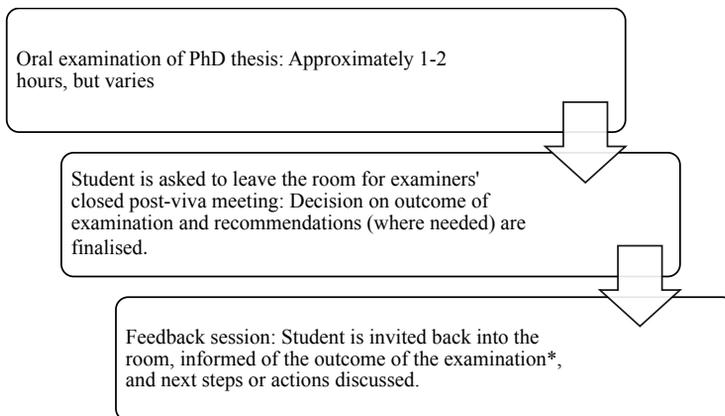
Once you have considered these 'generic' questions, think about questions that are specific to your work. Although potentially challenging, it is important to reflect on decisions you made, such as selecting one analytical method over another, and challenges you encountered throughout your PhD. Consider whether you would do anything differently given the opportunity to do it all again. It is also helpful to think about the questions you do not want to be asked during the viva! Everyone has 'dreaded' viva questions and it can feel easier to avoid these, hoping that they do not get asked. However, we recommend writing these down and thinking through possible responses. You might want to include bullet point responses to these questions within the thesis. Preparing answers for the questions you fear the most can relieve some of the apprehension about what will be asked.

Don't limit yourself to typing or writing answers out. Remember, the viva is an oral examination and as such, you need to be confident in speaking about your work. Practise this by asking your friends/family/colleagues to question you (tip: Use Viva Cards or similar tools for this!), or by speaking through your answers in an empty room. In the run up to your viva, your PhD supervisors might recommend a mock viva. In a mock viva, your supervisors will try to recreate viva conditions. This is a good opportunity to experience what it might feel like on the day, providing another opportunity to practise speaking about your work.

During the viva

What will happen during and post-viva differs for everyone (Morley et al., 2009), but in the UK, this is usually a private meeting where only the student, internal examiner, external examiner and viva chair will attend[1].The chair is key to ensuring that the examination is fair and adheres to university regulations. Sometimes supervisors will wish to attend the viva as an observer – use them as notetakers! We outline the common processes for UK PhD vivas in Figure 1 (Carter et al., 2009).

Figure 1: Outline of common viva processes in the UK (derived from Carter et al., 2009).

Oral examination of PhD thesis: Approximately 1-2 hours, but varies

Student is asked to leave the room for examiners' closed post-viva meeting: Decision on outcome of examination and recommendations (where needed) are finalised.

Feedback session: Student is invited back into the room, informed of the outcome of the examination*, and next steps or actions discussed.

*Outcomes may vary between institutions; however, common ones are: Pass with no corrections, pass with minor corrections, pass with major corrections, accept as is for Master's degree or fail with no right of resubmission.

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[1] If you're a member of staff at your institution, you may need another external examiner.

Having outlined the process, let's consider what it is actually like during viva. You will sit in a room with your examiners and chair. Remember, you can bring a copy of your thesis, and notes to the viva. Indeed, we recommend this as it is likely the examiners will refer to specific pages in your thesis. It would be more challenging to respond to examiners' questions if you are unable to look at what they are asking you about. Take advantage of bringing a copy of your thesis, as you are free to use this to refer to a particular section of text or direct the examiners' attention to specific content. As mentioned above, the viva may start with a broad question such as 'Summarise your thesis and explain why this is an important topic to consider.', or 'What is the contribution of your research to your field?'. The examiners may then ask you more detailed questions such as 'Explain why you applied this inclusion criteria to participant sampling.', and 'Tell us about your decision to use theory X over theory Y to inform your thesis.'

These example questions show you that the viva is an exciting opportunity to talk about your work. At least two academics have devoted their time to reading your thesis and discussing it with you. This may never happen again in your academic career so embrace the opportunity and enjoy discussing your work!

After the viva and corrections
The viva is cognitively and emotionally demanding, so it is normal to experience a wide range of feelings afterwards, from elation to deflation, regardless of outcome. We recommend taking a break from your thesis immediately after the viva, particularly if you have corrections to make. After all, you will need to wait for the formal examiners' report before you start making corrections. Within the examiners' report, you should have confirmation of the amount of time given for you to complete and submit your corrections. This is important information to have as you will need to plan for: (1) time for your supervisors to read your corrections and approve them for resubmission; (2) time for your corrections to be sent to your examiners; and (3) time for examiners to read your corrections, approve them or suggest any further changes.

When making changes, it is useful to have a table of corrections that indicate the pages where the corrections should appear in the thesis. You might also consider allocating time to finalising the formatting of your thesis for binding. Finally, we recommend providing a covering letter to the examiners to help them navigate your revisions.

Conclusion
We hope this clarifies how to prepare for the viva, what the experience itself is like and how to manage corrections. Our important 'take home' messages are: (1) take time to prepare for the viva; (2) answer each question as fully as you can; and (3) make a plan as to how to address corrections. Finally, we want to take this opportunity to wish you the best of luck. Remember, this is your research, you'll know it best!

Resources

> **Viva preparation resource kit**
> Suggested reading:
> *How to Survive your Viva* by Rowena Murray
> *The Tiny Book of Viva Prep* by Nathan Ryder
> (https://tinyurl.com/yctcqh7c)
> The Guardian's 17 Top Tips on How to Survive a
> PhD Viva (https://tinyurl.com/ybmlz9ke)
>
> **Tools:**
> Printed copy of thesis
> Viva Cards (http://vivacards.co.uk)
> Mind mapping apps (e.g. SimpleMind)

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Part III: Professional development

Section leads: Maria Raisa Jessica (Ryc) Aquino, Michael Scott Evans, Ramona Rusu & Rachel Nesbit

A Guide for Psychology Postgraduates: Surviving Postgraduate Study (second edition)

Part III: Professional development

Section leads: Maria Raisa Jessica (Ryc) Aquino,
Michael Scott Evans, Ramona Rusu & Rachel Nesbit

Overview

Professional development is considered part and parcel of a career in psychology, be it in research or otherwise. It means developing your skills beyond your postgraduate training, through gaining complementary experiences that are applicable to broader contexts such as engaging with the media and supervision skills. This is important as we progress through our careers, which evolve alongside our fields of work over time. Therefore, the aim of this section is to explore professional development for psychology postgraduates, with a particular focus on academic careers.

The first article, *Getting to grips with Open Science* (Joanne Eaves, Loughborough University, and James Bartlett, Coventry University), discusses the 'replication crisis' in psychology, and looks to Open Science as a means to address this problem. The authors offer insight into a number of Open Science practices, such as pre-registering hypotheses and statistical analyses plans, which postgraduates could apply to ensure their research is rigorously conducted. Relatedly, Astrid Coxon (University of East Anglia) wrote an article entitled, *Science communication: Why is it important and how should we go about it?*. Beyond developing research practices that increase transparency, this article offers food for thought (and excellent practical advice) on the value of communicating one's research to a range of audiences. Specifically, this article covers communication with the media, public engagement events, and digital platforms (e.g. social media, podcasts).

Then, three articles exploring the following topics follow: frameworks for evaluating research and practice, obtaining funding to conduct research, and the challenges to and opportunities for choosing between an academic or non-academic career, or balancing both. Debbie Kinsey (University of Exeter), in her article entitled, *Understanding the REF and TEF, and what they mean for postgraduate students*, explores the direct and indirect impacts of research and teaching assessment exercises on postgraduates. Here, each research and teaching assessment activity is outlined, and related issues discussed. Importantly, the article illustrates how such assessments might affect how you select a university for further study or employment, and the level of involvement expected of those in postgraduate study. The article *Writing grant applications* (Grace Turner, University of Birmingham) delves into one of the key indicators of academic success – securing research funding. It outlines different sources of funding, and gives outstanding advice on fundamental areas for consideration when developing grant applications. There are also plenty of helpful 'Top Tips' on writing funding applications, which are applicable to other writing activities (think dissertation, thesis, and publications). Finally, Laura Oxley (University of York) tackles the big question, 'What's next?' in her article: *Academia and beyond: exploring career options for postgraduate students*. In this article, we see a refreshing reflective discussion of what it means to pursue a career either in academia, or outside of it. One of the highlights of this article is it details a real-life account of how to achieve the ever-coveted 'middle ground' for those of you who enjoy both academic and non-academic work.

These articles give a flavour of the different activities you could engage with as you explore career options within and beyond psychology. My one piece of advice to you would be to

Maria Raisa Jessica (Ryc) Aquino, Michael Scott Evans, Ramona Rusu & Rachel Nesbit

contact the authors for further information and/or discussion, especially if you were intrigued by any of the points explored in this section. Communicating (dare I say networking) and working with others is, after all, a valuable skill to harness. Finally, this section would not have been possible without the support of my fellow Professional development section leads: Rachel Nesbit (Royal Holloway, University of London), Michael Scott Evans (Cardiff University), and Ramona Rusu (The University of Buckingham) – a huge thank you to each one of you for all your hard work. We hope that the articles herein will be useful to you as you prepare for life outside of higher education!

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Getting to grips with open science
James Bartlett & Joanne Eaves

The landscape of psychological research is changing – it's becoming more 'open'. This article outlines the context behind the rise of open science and provides practical recommendations that you can use in your research.

In the past decade, Psychology has experienced a 'replication crisis', a state in which scholars have found the results of studies difficult to replicate. The climax was the ground-breaking Open Science Collaboration (2015) article with the headline that only 36 per cent of findings could be replicated. As a result of this crisis, scholars are now reflecting on their research practices, and engaging in a movement towards open science (Nelson et al., 2018). As postgraduates, you are part of this movement, which we hope to prepare you for in this article. We begin by outlining the context behind the open science movement and the problems that lead to its rise. We then provide some practical recommendations on how you can incorporate open science into your own research. We note that this article focuses on quantitative research methods, and refer the readers to Tamminen and Poucher (2018) for a discussion on open science in qualitative research.

As the rise of open science outpaces the teaching of it, some academics and students, we believe, are not prepared for how to be part of it. As authors, we hope to prepare you by drawing on our different experiences of how we learnt about open science. Joanne learnt about it primarily from her supervisors who, from day one of her PhD, actively encouraged and engaged with open science practices. James learnt about it through online communities and extensive reading. We both use open science practices in our research, and we hope that this article allows you to do so too.

1. The prelude to the replication crisis

Due to the increased focus on research methods and publishing habits in the last decade (Chambers, 2017), it would be tempting to believe that the problems that led to the replication crisis are a relatively recent concern. However, there have been multiple expressions of unease over the last century, but these expressions were hidden. Take statistical power as an example. Cohen (1962) surveyed a volume of the *Journal of Abnormal Psychology*. He highlighted that the studies only had sufficient statistical power to detect his definition of a large effect for each of the different statistical tests used. The sample sizes were simply too small to reliably detect his definition of a small or medium sized effect. Despite this early warning, low statistical power is still a concern in contemporary research (Button et al., 2013). Therefore, it is important to understand why it is only now that these problems are reaching a wider audience.

There are several articles that may be considered the turning point for these historical concerns. Ioannidis (2005) wrote a damning essay suggesting that most published research was wrong due to prevailing biases such as poor research design. Two papers published in 2011 then caught the attention of a larger number of psychologists. Bem (2011) purported to provide evidence of precognition, or the awareness of future events before they happen, across nine different studies. The article appeared to adhere to stringent research methods, and it was published in one of the most prestigious social psychology journals. However, its findings could not be replicated by other scholars. This left people with two options: Bem (2011) could either have made a revolutionary discovery, or the stringent research methods were not that stringent after all. In a separate study, Simmons et al. (2011) showed how undisclosed flex-

ibility in how research is conducted can lead to statistically significant, but nonsensical results. They reported an experiment where people listened to one of two songs, and then provided their date of birth. Their analyses indicated that people appeared to become younger by listening to a particular song. However, this was because they did not report additional conditions, adding covariates, and how they kept collecting data until the result was significant (see 'p-hacking' in section 2.3).

In the aftermath of these articles, some psychologists sought to investigate how robust a selection of published research actually was. In the Open Science Collaboration (2015), 270 authors aimed to replicate 100 studies published in a handful of high impact journals. This project produced the headline that only 36 per cent of results could be replicated. It is important to note that the exact meaning and implications of this project are still debated. For example, Etz and Vandekerckhove (2016) suggest the results can be explained in terms of the replication studies still having low power, as their power analyses were based on overestimated effect sizes from the original studies. Nonetheless, the results were shocking enough for the effects to ripple across psychology and into the general media. This led to the widespread realisation that many of the research and publishing practices that were commonly used in psychology had severe limitations. We will now turn to outlining some of these problems in greater detail.

2. The problems that led to the promotion of open science
2.1. Publication bias
Publication bias is an ongoing, pervasive issue which transcends all others in Psychological research. It refers to the tendency to publish studies with significant, positive findings, but not those with null results. Instead, those with null results are pushed to the back of researcher's drawers, long to be forgotten and never released to the academic community (hence the nickname the 'file drawer problem', Rosenthal, 1979). Although it is difficult to know the true prevalence of the file drawer problem, a recent estimate is that studies with significant results are 60 per cent more likely to get written into an article than those with null results (Franco et al., 2014). The results of published studies may therefore be systematically different from the results of unpublished studies, with overwhelming reports of positive findings (Fanelli, 2010).

What is the consequence of the file drawer problem? If experiments with null results never reach our awareness, we may erroneously label our own findings as failed replication attempts. The result is that we will never have the full picture of a phenomenon, and our replication attempts are at best, difficult to interpret. A null result may actually be a successful replication of an inaccessible study buried in another researcher's drawer, and perhaps, consistent with the majority of unknown literature. For a PhD student this could be very frustrating. With a limited timeframe to conduct research, it is important that this time is spent investigating hypotheses that have not been thoroughly investigated elsewhere. Given that the first few months of a PhD are usually devoted to identifying a worthwhile 'gap' in the literature, it is important that the 'gap' identified is not just a series of studies with null results.

2.2. Methodological reporting
A good researcher, to the best of their knowledge, will report the exact details of the design, materials and procedure of their experiments. However, in practice this can be hard to achieve. As an author, you provide all the details that *you are aware of,* and *you think* are relevant. On the other hand, you tend not to report those you think are irrelevant, and you cannot report ones you are unaware of. For example, in a simple laboratory experiment, do you report details of the environment, the time, the alertness of participants? Only if *you think* they are relevant. It is inevitable that details which may seem irrelevant, but are actually important, will be missed and these missing details in turn, make replication difficult.

Try this: take the method section of any published study and try to implement it. You will almost certainly identify something that is unclear, that you are not sure how to implement, or incorrectly assume something was implemented when it was not. This is not necessarily a fault of your own, or the original researcher. Instead, it is a fault in our research practice. For too long, researchers have been conducting their own studies separately from each other, making their stimuli, scripts and materials separately under the guise that they are the same.

2.3. Statistical reporting

P-hacking, as we have seen, refers to the situation where researchers conduct iterative statistical tests on a dataset until non-significant results become significant. For example, Researcher A has a dataset of mean reaction times in two conditions and analyses the dataset as a whole. This returns a *p*-value of .07, narrowly missing the accepted .05 threshold for significance. They then re-run their analysis using more stringent exclusion criteria, but this also returns a null result. They then compute median reaction times rather than means, but still no significant result is returned. Finally, they do both, using medians *and* applying the exclusion criteria, which finally returns a *p*-value of .04. What does the researcher report? Cognitive biases inevitably lead one to prefer the latter result.

Indeed, until relatively recently, it was common for researchers to prioritise the reporting of analyses that produced significant results, without concern for how many times the data had been analysed (Wasserstein & Lazar, 2016). This approach is problematic as the more comparisons performed, the more likely one is to obtain a *p*-value less than .05 by chance, and thus incorrectly reject the null hypothesis (a Type 1 error). The consequence is that a significant result may be an illusion, as the data behind the result has been repeatedly analysed until it could produce nothing else.

3. Improving psychological research through open science

There is no single solution that will fix the problems outlined above. However, through multiple, small-scale actions, we can gradually improve our practices to strengthen our discipline. As postgraduates, you are key to this movement, and below we provide some recommendations for how you can be part of it.

3.1. Pre-registration

One solution is to specify hypotheses and analyses ahead of time in a process called pre-registration. Pre-registration is important because it provides a timestamped report of how you plan to conduct your analyses and this protects against changing your hypotheses in light of analysing the data (HARKing; Kerr, 1998) and p-hacking. In psychology, researchers have started to pre-register their studies in two formats: pre-registered analysis plans and registered reports. Pre-registered analysis plans involve authors archiving their hypotheses, methods, and planned analyses prior to data collection. The two main online platforms for pre-registration are the Open Science Framework (OSF) and AsPredicted (for guidance, see van 't Veer & Giner-Sorolla, 2016). You can then reference your pre-registration when writing up your research for your thesis or publication. This provides evidence of which analyses were planned from the beginning, and which are exploratory.

An extension of a pre-registered analysis plan is a registered report. This is where pre-registration is incorporated into the publishing process and the introduction, methods, and analysis plan are submitted to a journal before the study is conducted. The reviewers can make suggestions to improve your submission and if everything is satisfactory, an in-principle acceptance can be offered. This means that when the project is finished, the article is published regardless of the outcome, providing you have adhered to your pre-registered plan. This is great for

tackling publication bias, and the number of journals offering registered reports is increasing (122 at the time of writing). Registered reports may seem daunting, but they *are* feasible for postgraduate students (e.g. Hobson & Bishop, 2016). Regardless of which route you take (pre-registration vs registered report), outlining your plans ahead of time can mitigate biases and create a clear distinction between exploratory and confirmatory research.

3.2. Routinely sharing data and materials

Arguably, the most assured way to being an open science researcher is through sharing your experimental materials and data. This is a huge mind-set change. Where researchers once operated independently, devising their own stimuli and materials and analysing datasets on their own, they are now expected to share it all. Openly sharing everything you have created may also seem daunting, but it provides the biggest reassurance of transparency, honesty, and reproducibility.

There are different ways to share materials and data, such as publishing them as supplements to a research article, or depositing them in third-party repositories that support publication (e.g. figshare, dataverse, OSF). There are benefits and drawbacks to each option such as file size and journal compatility (see Harvard University, 2017) and funding bodies, external parties, data sensitivity, and data management plans may require you to use a specific route. It is also important to keep in mind that you might not be able to share everything for every project, and that all projects must comply with GDPR regulations to protect personal data. Check with your university regulators and supervisors for the appropriate channel to use, and then be proud to share as much as you can!

3.3. Quality control of statistical analyses

One of the simplest things you can do is check your research for statistical mistakes. Nuijten et al. (2016) found that 50 per cent of articles include a small inconsistency (e.g. a rounding error) and 13 per cent contained a gross inconsistency (e.g. a *p*-value being report as below .05 when it should have been above). They developed Statcheck, an online tool and R package, which can scan the text of the analyses you describe in your reports, so long as it is in APA style. It can quickly detect whether there are any inconsistencies and thus allow you to prevent incorrect statistics being disseminated more widely. The journal *Psychological Science* has even started to use Statcheck in their peer review process.

3.4. Sample size planning and statistical power

Power refers to the probability of detecting an effect, given that the effect is really there, for a specific sample size, alpha level and true effect size. Historically, an adequate level of statistical power was deemed to be 80 per cent, which means that in the long run, we would get a statistically significant result 80 per cent of the time, and 20 per cent of the time we would fail to find it (Type 2 error). The consequence of low power is that some researchers may incorrectly conclude that their alternative hypothesis was incorrect, and reject it. In actual fact, their hypothesis was correct, and their methodology was not sensitive enough to detect their effect size of interest.

Rather than relying on rules of thumb, one remedy is to calculate how many participants you will need based on previous research or the smallest effect size of interest. Many tools can be used to conduct power analyses prior to the start of an experiment. G*Power (2017) is one that is widely used, free to download, and has extensive guidance. The software allows you to estimate the minimum number of participants that you would need to detect the smallest effect size of interest. The software does have some limitations for complicated designs, but online forums and the G*Power user guide can help you. We strongly recommend that you conduct power analyses in your studies to ensure that the results are informative regardless of the outcome.

3.5. Incentivising open science practices

These recommendations (pre-registration, data and material sharing, powering studies) are not without controversy, and some researchers remain sceptical and wary of them. This reaction is somewhat understandable given the history of researchers successfully publishing without being asked to pre-register, share materials, or justify their sample sizes. These practices are even incentivised by the reward structures of science, where publication quantity is synonymous with success. In a three-year PhD, we need to alter our expectations accordingly. Rather than conducting many small-scale studies, we should be conducting fewer larger-scale studies to ensure we focus on quality, not quantity.

To incentivise the adoption of these practices, journals and grant funding bodies have different initiatives to encourage open science. Some journals (e.g. *Psychological Science*) are offering a badging system to reward authors who pre-register, share their data, and materials. Other journals (e.g. *Cognition*) have a mandatory open data policy for studies without any ethical reasons not to. Separately, grant funding bodies such as the Royal Society are stipulating that research they fund should be available open access. There are different types of open access including green, gold, and hybrid. Green is where you self-archive a copy of your article, either through an institutional repository or a pre-print server. Gold and hybrid open access refers to your article being freely available from the journal, but the hybrid option requires you to pay an additional fee to allow this. These initiatives suggest that there are signs that the incentive structures are steadily progressing to encourage a more open science.

4. Conclusion

As postgraduates, you are in a privileged position to be open scientists from the start of your careers. Hopefully you will have a greater understanding of the context behind the rise of open science in psychology and some of the initiatives that have been used. You can start to incorporate these into your studies to increase transparency and provide other researchers with the opportunity to assess the claims you are making. We will leave you with five practical recommendations to use in your research.

1. Pre-register your hypotheses and analysis plan before collecting any data.
2. Share your study materials and analyses if you have permission.
3. Use Statcheck before disseminating your analyses.
4. Conduct a power analysis to justify your sample size.
5. Archive your finished article as a pre-print to ensure your work is available open access.

If you feel apprehensive about open science, or your supervisors lack enthusiasm for it, you could start small and do just one of the above in your next project. Remember, a study with one of these actions is better than a study with none.

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Science communication: Why it's important and how should we go about it?

Astrid Coxon

In an increasingly digital world, academics have more opportunities than ever to disseminate their research to a wide variety of audiences. This article highlights some of the different tools available for effective science communication and explains why, as postgraduate students, we should get involved.

During your postgraduate studies, the majority of your research dissemination will likely be to like-minded academics. Aside from writing up your research dissertation or thesis (and defending your work *viva voce* if you are doing a PhD), you will typically be expected to develop your conference presentation skills, write articles for peer-reviewed journals, or summarise your findings in an academic poster format. However, a key skill for effective researchers is the ability to communicate findings to a variety of different audiences, in a wide range of formats.

Communicating your research to different audiences can help you to consolidate your own understanding (Koh, Lee & Lim, 2018), and help you to develop your research ideas in unexpected ways. For example, near the start of my PhD, I gave a *Psychology in the Pub* talk about training transfer. The event was attended by members of the public who worked in a broad range of industries, including business management, and had interesting questions, insights and suggestions which I had not previously considered. Reflecting on these discussions (which would not have been possible without my engaging in a science communication event) helped me to develop the early stages of my PhD research.

As well as having these benefits for your personal and professional development, engaging in different forms of science communication can also present unexpected opportunities. Building your reputation as a proactive and engaging academic will not only give your research greater exposure, but it can also help you to network with other professionals in your field. Connecting with the wider community, including academics, clinicians from other disciplines, and professionals working in the public or private sector, and in industry, may present opportunities for future research projects, collaborations, or employment.

Engaging with the media

Aside from publishing journal articles, conference posters and presentations, one of the most common forms of science communication for established academics is engaging with traditional media (such as newspapers, radio and television). Providing summaries of newly published articles or emerging findings can be an important and effective way of communicating science with the general public. By working proactively with media outlets, academics can provide an accurate and unambiguous account of their findings for public information. For the majority of postgraduate students however, this is less common, and the concept can be daunting, but it needn't be. Nearly all higher education institutions have a media or communications department, which can offer postgraduate students advice, guidance and expert service in preparing press releases, disseminating research and engaging with media outlets. For example, a press release about my own Master's research in 2016 is still generating media interest for me now – I've spoken on radio, had my work referenced by a journalist in Germany and most recently, I was invited to give a talk about wellbeing to paramedic students

at a London university. Without a well-written press release, it's unlikely that I would have had these opportunities; the press release helped my research to reach a wider audience.

If you want to engage with the media in this way, but are unsure how to start, a first step would be to contact the media and communications department at your university. They may also be able to advise you on how best to speak to journalists. As your academic career develops, the British Psychological Society (BPS) also offers training in media skills, at a discounted price for Society members. For further insights, read 'Psychologists and the media – opportunities and challenges', published in the April edition of *The Psychologist* (2018).

Public engagement events

Opportunities for academics to disseminate their research to the public are becoming increasingly popular. Events such as Pint of Science (https://pintofscience.co.uk/) and Psychology in the Pub (visit the BPS website to see if your local branch runs these events) offer postgraduate psychologists a platform to share their findings with a non-academic audience.

The benefits of events like these are bidirectional. They allow members of the public to explore the latest psychological research with the researchers themselves, and at the same time, challenge you (as the academic) to present your research in a way that is understandable and engaging for a non-specialist audience. Increasingly, employers seek potential employees who have experience in public engagement, and events such as these can be invaluable in career development. Although it may seem intimidating, it needn't be: The audiences that attend do so because they have a vested interest in your area of expertise, and will likely be engaged and ask questions you wouldn't expect from the academic audiences you might be used to. It's a fun and friendly way to practice your public speaking, whilst also connecting your research with a wider audience. That audience could well provide networking opportunities, be a means of recruiting future participants and prompt ideas for future research.

Twitter

Although there is now a wide range of social media platforms, one that academics are particularly engaged with is Twitter (Iber, 2016). Twitter is a form of micro-blogging, allowing users to share short posts (no more than 280 characters) of text, links, pictures and embedded video, with their followers and the wider public. The simplest way to get involved on Twitter is to follow other users, such as @PsyPAG, @BPSOfficial and @psychmag, 'like' the posts that interest you and retweet existing content that you want to share with your own followers.

Using my own experience as an example, I have been an active Twitter user since 2009 and since my first few self-conscious tweets, I now have over 850 followers, regularly sharing and discussing research with people across the world. As well as running my own Twitter account, I also acted as Public Engagement Officer for the Division of Health Psychology (@divhealthpsych) in 2015, sharing research from health psychology and engaging with followers about events and issues relevant to the Division. In a personal capacity, I continue to provide live Twitter coverage of events and conferences I attend. By engaging in chats, using relevant hashtags and following other accounts, Twitter has helped me to connect with other academics across the world, in a way that no other social media platform has.

Twitter can be a straightforward medium to get involved in and can be a very effective means of science communication. It can be an enjoyable way of connecting with others to talk about things that interest you and when used wisely, can be very rewarding both personally and professionally (Meyer, 2018). Here are a few things you can do to get the most out of Twitter:

● *Maximise good use of #Hashtags:* Hashtags are the social media equivalent of keywords. They categorise your tweets and increase your exposure to people who don't already follow you. Think about the content of your tweets and include appropriate hashtags. Some hashtags are popular,

and other users regularly check what is being tweeted about specific topics. Some good general examples include #AcWri (academic writing), #AcademicTwitter, #PhDLife, and (of course) #Psychology[1]. You can also find popular hashtags via the 'Trends' sidebar on Twitter.

- *Tweet at conferences and events:* Most events now have a designated hashtag and encourage delegates to use it (recent ones I've used include #Pint18, #PintOfScience, #MentalHealthMatters and #UEALT18). This can be a really good way of connecting with delegates at the conference, not just digitally but also face-to-face. As a nervous postgraduate, I found my habitual Twitter conference coverage was a really good conversation starter. Academics whom I admired would approach me during coffee breaks to talk to me about things I had tweeted, providing an effective means of networking. Be sure to use a clear and recent profile picture, so that delegates know who to approach. Tweeting at conferences can also help you document your thoughts about talks you attend. Although live Tweeting will not suit everyone, I have found it can provide a good *aide mémoire* should I want to write up a review or blog post at a later date.

- *Join in with chats:* Connect with other users by joining in on scheduled Twitter chats. Individual users or organisations often host chats on a regular basis. These usually consist of a designated hashtag, chosen topic, and scheduled time. For example, #AlzChat is a Twitter chat run every Monday at 8pm, where carers and professionals talk about Alzheimer's and dementia. #SUWT (Shut Up and Write Tuesdays) is a virtual writing group, run on the first and third Tuesday of the month (10am for #SUWTUK). For a list of some of the most popular Twitter chats, check http://www.tweetreports.com or explore what other users are joining in with.

Blogging

Blogging can provide you with the opportunity to discuss your research or professional insights where the 280-character limit of Twitter won't suffice, and can attract media attention or might even lay the foundations for a career in science journalism. I have been blogging since I was a teenager, and while my earliest blogs have been (thankfully) lost to the sands of time, it's a habit that has stuck with me. What started out as a form of reflective writing (long before I fully appreciated the benefits of reflective practice (Finlay, 2008)) has since become a way for me to communicate my research and professional interests with a wide audience. As highlighted by veteran blogger and founder of the BPS Research Digest Dr Christian Jarrett in his talk at the 2018 Psychology Research Day, blogging can be an excellent way of communicating your research to the general public, and will help you to develop your digital profile (Jarrett, 2018). Anyone can start a blog by creating an account with popular platforms such as WordPress or Blogspot.

If you don't want to run your own blog, consider offering to write guest posts for existing, active blogs. This can be a good way of getting into blogging, as it provides you with a platform with an existing audience to publish your writing. The blog host will be able to edit and provide feedback on your post and may invite you to post again in future, but with the added advantage that there is no obligation or pressure to do so if you decide that blogging is not for you. I have written guest posts for blogs such as the Network for Pluralism in Qualitative Research, and PhD Talk. Many blogs, such as The Conversation and The Mental Elf. Many BPS Sections and Divisions also run their own blogs and regularly seek guest bloggers to produce content for them. However, if you already know of a blog that you would like to write a post for, the best thing to do is get in touch with the host, administrator or moderator. Approach them with a brief description of your areas of expertise, or better yet, suggest some ideas for things you would be interested in writing about.

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[1] After seeing a tweet from the Royal National Institute of Blind People @RNIB, it was brought to my attention that capitalising individual words in hashtags makes it possible for screen reader software to read them more effectively (e.g. #EasierToRead). It's a simple thing that we can do to improve accessibility for blind and partially sighted people, and I encourage everyone to do it.

Some ideas for things you might blog about:

● *Your own research:* Discuss your methodology, give some background information about your subject area, discuss interesting emerging findings, or give a summary, written in a way which is accessible and suitable for a general audience, of an academic article you've published.

● *Commentary on other research:* If you've recently read a published paper that you found interesting (or even if you disagreed with it!), consider blogging a brief and clear summary and discuss your thoughts about it. Similarly, if you read a newspaper article or saw a news story about some emerging research in your area, use your blog to provide an informed insight on the subject.

● *Event or book reviews:* If you attend a conference or other academic event, write a brief review about it for your blog. This could be of particular interest for other academics in your research area who were unable to attend. Publicise the review via social media, providing links to the event organisers and using any event hashtags. Similarly, if you read a recently published book (whether textbook or popular novel with themes related to your research area), write a review to inform others who may consider reading it.

If you're struggling for ideas, browse established blogs for inspiration. And when you publish new blog posts, whether on your own blog or as a guest blogger, don't forget to share them via social media platforms such as Twitter, using appropriate hashtags of course!

Podcasts and vlogging

Podcasts and vlogs (video blogs) are increasingly popular amongst a broad range of audiences, as they allow people to engage with topics of interest 'on the go' (such as whilst travelling or at the gym). Producing podcasts and vlogs are arguably the two most process-heavy methods of science communication, involving a great deal of time, planning, equipment and editing. Although either could be done simply using a smartphone, the best quality podcasts and vlogs require some specialist equipment, such as high definition cameras and condenser microphones. Even producing a short podcast or vlog takes time to write the script, invite and interview guests (if you want them), will most likely several takes to get right, and considerable editing to give it professional polish. If you intend to use music (i.e. over the introduction, credits, or to break up sections within your episode), make sure you do your research as there are strict copyright and licensing laws. Although there is a wide variety of Creative Commons licenced music, not all of it is available for all uses, so be sure to check terms and conditions on your chosen track.

If the idea attracts you, a good way to get into podcasts or vlogging is to, much like with blogging, appear as a guest on an established platform. However, good quality, regularly updated psychology podcasts and vlogs are surprisingly rare; this might be just the opportunity for you, if you have the skills and the ambition. Experiment by starting out with the tools you have available (such as your smartphone). If you find you enjoy it, and your content proves popular, you may want to invest in more professional equipment later down the line. Apply the same principles as you would to any of the other methods of science communication, and most importantly, do it because you want to and because you enjoy it. Examples of existing psychology vlogs include The Psych Show, SciShow and Crash Course Psychology; psychology podcasts include Very Bad Wizards, The Psychology Podcast and Hidden Brain.

General tips for science communication

● *Develop your own voice:* Let your personality shine through in your writing but remain professional at all times. Some of my favourite science communicators, regardless of their medium, are ones that have developed a distinctive way of writing or speaking which is

engaging as well as informative. However, a good general rule for science communication is to avoid saying anything that you wouldn't wanted to be quoted on later. This includes using discriminatory or offensive language, but also making unfounded statements outside of your area of expertise. By all means, join in with conversations and offer an informed opinion, but as with traditional academic writing, try to remain professional and objective, ensure that you have done your research first, and provide references where possible and appropriate.

● *Engage with your audience:* Try to always reply to your followers on Twitter, commenters on your blog, and emails about your research. Not only is it polite, but it also demonstrates that you are an active and engaged academic, interested in continuing the conversation and networking. Plus, you never know what opportunities might grow from a simple comment.

● *And finally, don't be humble:* Self-promotion is not the same as arrogance. If you have you have expertise, then share it! Promote your blogs, vlogs, and public engagement events via social media, and get the word out about what you're doing. As employers increasingly look for evidence of impact and public engagement, science communication is invaluable in developing your CV.

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Understanding the REF and TEF, and what they mean for postgraduate students

Debbie Kinsey

The Research Excellence Framework (REF) and Teaching Excellence Framework (TEF) are large-scale forms of peer review of universities' research and teaching activities. They are not without their controversies, but can have an indirect impact on you as a postgraduate student. This article provides an overview of what the REF and TEF are, how these are assessed, some of the controversies surrounding them, and what this means for postgraduate students.

REF – Research Excellence Framework

The REF is carried out by the four UK higher education funding bodies (Research England, the Scottish Funding Council, the Higher Education Funding Council for Wales, and the Department for the Economy, Northern Ireland). The aim of the REF is to assess the quality and impact of a university's research output as a way of making them accountable to funds they receive, give others (like prospective PhD students) a way of assessing universities, and to decide how much quality-related funding the funding body allocates each university. The REF assesses research quality using three weighted indicators:

1. *Outputs* (65 per cent) – the significance and rigour of research outputs like journal articles and books.
2. *Impact* (20 per cent) – the effect of research beyond academia – on the economy, society, culture, public policy or services, health, the environment, or quality of life.
3. *Environment* (15 per cent) – the 'vitality and sustainability' of the research environment. This includes research income, facilities, staff development, and PhD completions.

For the last REF (in 2014), universities had to submit information in Units of Assessment (UoA), which are categories of related subject areas. In each UoA, staff were submitted if they were employed on at least a 0.2 full-time equivalent and 'research only' or 'teaching and research' contract, and were 'independent researchers' (so not research assistants who work on other researchers' projects). However, universities did not need to submit all staff who met that criteria (which may be changing for the next REF in 2021).

For each UoA in 2014, universities submitted:

1. *Outputs* – up to four outputs for each member of staff submitted.
2. *Impact* – a description of the UoA's approach to enabling impact, and case studies of specific examples.
3. *Environment* – a description of the UoA's research environment and data on research income and doctoral degrees awarded.

These are then assessed by panels of experts who give each UoA four 'quality profiles' – one for each of the three indicators and one overall. The quality profiles are the proportion of submitted research which meets each of the following star ratings:

Table 1: REF star ratings (from 2014 REF guidance)

4*	Quality that is world-leading in terms of originality, significance and rigour.
3*	Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.
2*	Quality that is recognised internationally in terms of originality, significance and rigour.
1*	Quality that is recognised nationally in terms of originality, significance and rigour.
Unclassified	Quality that falls below the standard of nationally recognised work. Or work which does not meet the published definition of research for the purposes of this assessment.

The REF results are presented in the form of these quality profiles. Results of all universities and their submitted UoAs can be found on the REF website (www.ref.ac.uk), and usually universities will publish their own results on their websites.

The next REF assessment is scheduled for 2021, with a submission deadline towards the end of 2020.

TEF – Teaching Excellence Framework

The TEF aims to assess the quality of undergraduate teaching at universities and is, thankfully, a little less complicated than the REF in terms of what universities have to submit.

Like the REF, the TEF award is assessed using a panel of experts. They consider three main areas:
1. Students' views on the quality of undergraduate teaching, assessment, and feedback on the National Student Survey.
2. Dropout rates.
3. The number of graduates in employment or further study six months after graduation.

Unlike the REF, this is for the university as a whole, and not individual subjects or departments, and does not include any postgraduate teaching. The university is then awarded one of the following ratings:

Table 2: TEF award ratings (adapted from Office for Students guidance)

Gold	Consistently delivers outstanding teaching, learning, and outcomes for students, of the highest quality in the UK.
Silver	Delivers high-quality teaching, learning, and outcomes for students, consistently exceeding the UK national quality requirements.
Bronze	Delivers teaching, learning, and outcomes for students that meet the UK national quality requirements.
Provisional	Meets the quality requirements but doesn't have enough data to be fully assessed.

A TEF award can last for three years, but a university can re-apply before the three years are up if they want to try and improve their rating. It's also currently not compulsory, so universities do not have to opt-in to the system. You can find the results of all universities at www.officeforstudents.org.uk

Criticisms of the REF and TEF assessment systems
REF
The 2021 REF will have slightly different rules and procedures following evaluations of the 2014 REF, which means some of the 2014 criticisms may not apply to the next REF. For example, in 2021 all eligible staff must be submitted, which means universities cannot be strategic in who they decide to submit or not submit.

The 2014 REF had largely negative coverage in the media at the time (Murphy & Sage, 2014) and was criticised for discouraging innovative and high-risk or long-term work due to the timescales for impact assessment, not differentiating between different types of research output, having insufficient space for detail about impact in case reports, and being overly complex and expensive. Further criticisms of the exercise were that it inadvertently encouraged universities to 'game' the system through poaching highly 'REFable' researchers immediately before the REF so their previous work could be included in their new university's submission, and to strategically decide which staff to submit for their assessment. For further detail on criticisms of the REF, see the further reading section at the end of this article.

TEF
The main criticism of the TEF is that it doesn't actually measure the quality of teaching (Gunn, 2018). For example, the TEF doesn't include information about issues like student contact hours or teaching methods and resources. Although it is argued that the data submitted to the TEF reflects good teaching, these can also be influenced by other factors; for example, student dropout rates may be unrelated to teaching quality. The other key criticism is that the answers given on the student survey may not be an accurate reflection of teaching due to the nature of simplified multiple-choice questions and issues such as gender and racial bias in student evaluations of teaching (e.g. Mitchell & Martin, 2018; Reid, 2010).

So what does the REF and TEF mean for postgraduate students?
It's possible to go through your entire Master's or PhD without hearing anything about the REF or TEF, and it's not something you need to have an anxiety about. However, the assessments will have at least an indirect impact on you, and you on them. Having an awareness of the REF and TEF can also be useful for navigating the key policies in academia, as well as academia as a workplace. This may help you to understand the structures around you, what others are working towards, and if it's the right place for you following your PhD.

Applying for, during, and after your Master's
Whether you are completing a taught or research-focused Master's course, the REF and TEF are unlikely to have much of an impact on you. The TEF only assesses undergraduate teaching and does not differentiate between different subjects within a university, so likely won't be helpful in deciding which university to attend, though may give a general indication of the quality of teaching (bearing in mind the criticisms discussed above). The REF results may be useful for research-based Master's courses, particularly the environment indicator as this includes structures in place to support research. However, the assessment includes supervision and completion of PhDs but not at Master's level.

If you publish during your Master's you will need to deposit the finished paper in an institutional e-repository so your department can meet the access requirements for the REF. Your research supervisor should help you with your university's procedures.

If you decide to stay in academia, the REF and TEF will become increasingly important. The impact during PhDs and beyond is discussed below.

When you're applying to PhDs

The TEF doesn't assess postgraduate teaching, so likely won't be helpful in making decisions for selecting universities to attend. However, you might want to look at the REF results for a particular department to get an idea of the amount of high-quality research output they produce, potential opportunities for creating real-world impact, and the quality of structures in place to support research (including supporting PhD students). This third indictor (i.e. Environment) will probably be the most useful to consider. However, it's important not to rely solely on the REF in making your decision whether or not to attend a particular university – your PhD experience will depend on a range of factors not included in the REF, such as your supervisory relationship and the compatibility of your working styles, and you need to bear in mind the criticisms discussed above.

During your PhD

A PhD student is not eligible to be submitted as a member of staff as part of the REF, so you will not be asked to submit published work for assessment. However, you will be expected to indirectly contribute to the exercise. Firstly, your university will likely have an open access policy, which is linked to REF requirements. This means any publications and your final thesis will need to be deposited in an institutional e-repository. You will need to check what the process is for your department but this is something your supervisor should help you with. In addition, it can be helpful to publish throughout your PhD rather than just at completion, where possible for your project. If you are employed in a REF-eligible role following your PhD, your publications during your PhD could be submitted, dependent on when they were published and the timing of the REF exercise. Relatedly, think about non-academic impact and dissemination during project planning. Aside from the many other reasons why these are potentially important aspects to your work, if you decide to stay in academia, it can help demonstrate that you are a 'REFable' researcher as you are considering issues relevant to the REF exercise and that you have something to contribute, particularly if there is little time between your PhD and needing to make a REF submission.

Secondly, the REF can be stressful and anxiety-provoking for some researchers. Depending on where it is in the REF cycle when you are studying, you may notice an increase in workload or stress amongst permanent staff, including your supervisors, or more generally in the department. It's your responsibility to emotionally support the team, and you shouldn't be abandoned by your supervisor during REF submission. However, it's helpful to understand the pressures your colleagues face, and why you might want to take an extra turn making the tea.

Finally, as a PhD student, you are part of the department and the research environment. Even if you never hear mention of the REF during your time studying, you are indirectly a part of it simply through studying your PhD and being supervised and supported.

If you teach or assess undergraduates during your PhD, students will be considering your teaching when they complete the student survey regarding their overall satisfaction with teaching and assessment on their course. This will feed into your university's TEF submission. The TEF may mean universities become more focussed on teaching quality and the student experience, particularly if participating becomes compulsory. This means it would be useful to consider the TEF and the areas of evaluation within the student survey, such as quality of

feedback, as a way of framing your professional development as a teacher and developing your skills. Many universities offer free teaching courses for postgraduate students and early career researchers, so it is worth checking with your careers office to see what is available. Although your PhD is focussed on research, developing other skills such as teaching will be invaluable, whether as a future academic and as transferable skills outside of academia.

After your PhD

If you decide to stay in academia, the REF will become increasingly important, particularly as it gets closer to a submission date. The rules for the 2021 REF are not fully in place at the time of writing, but you may be classed as eligible for submission to the assessment depending on your post-doctoral role. You'll need to keep up good habits of depositing your publications into open access, attend training and contribute to your department's REF submission, and consider the quality and impact of your work in terms of the REF submission. Early career researchers (ECRs) are often on short-term contracts, and these can sometimes make it difficult to increase 'REFable' work. It can thus also be extremely useful to join Early Career Researcher Networks (ECRN) to get access to peer support and ECR-specific training to help navigate issues like the REF. The BPS is currently setting up an ECRN, but many universities and individual departments also have their own.

Unless you have a research-only role, you will likely be doing some teaching and assessment in an ECR position. As in the 'during your PhD' section above, if you are teaching undergraduates, their perceptions of your teaching and assessment will feed into the TEF submission. As above, think about the TEF assessment areas as a way of framing your professional development as a teacher, and seek out resources, support, and courses offered at your university. You may be required to attain a particular level of qualification in order to teach, but your line manager should be able to help you with this. Even if it is not a requirement, gaining qualifications related to teaching in higher education may help demonstrate your skills, as well as developing them, if you apply to other roles.

If you decide not to pursue a career in higher education (research or otherwise), you will likely only hear about the REF and TEF again when the latest results are released in the national press.

Conclusion

Whilst the REF and TEF may have no direct impact on your postgraduate experience, they are key influential assessments in university departments. When applying for Master's or PhDs, the REF results, particularly the environment indicator, may be useful as a part of your decision-making. If you decide to stay in academia, the REF and TEF will be of increasing importance, as you become directly part of your university's submission as a researcher and teacher. Even if you are not staying in academia after completing your PhD, having an understanding of key issues and policies like these will help you to gain a better understanding of the environment you're working in, what others are working towards, and academia as an enterprise in general.

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Further reading

REF

Official updates and guidelines on REF 2021: http://www.ref.ac.uk/

REF 2014 guidelines (including criteria & rating systems): www.ref.ac.uk/2014

Criticism of the REF 2014:

    http://cdbu.org.uk/reflections-on-the-ref-and-the-need-for-change/

    Sayer, D. (2015). *Rank hypocrisies: The insult of the REF.* Sage.

TEF

Official updates and guidance for students: https://www.officeforstudents.org.uk/

Criticism of the TEF:

    Forstenzer, J.I. (2016). The Teaching Excellence Framework: What's the purpose? Special issue on TEF with a number of critical articles. *Compass: Journal of Learning and Teaching, 10*(2), 2017.

Writing grant applications
Grace Turner

Securing funding is a key marker of academic success and a stepping stone to the holy grail of 'becoming an independent researcher'. The process of applying for funding can be daunting, but is a great opportunity to develop new skills and build collaborations. This article will provide hints and tips for preparing a funding application.

Fellowship, project grant or small grant

First, you need to decide what type of funding you need. Funding options broadly fall into three categories: fellowships, project grants and small grants. Fellowships are training and career development awards which aim to accelerate career trajectories of individuals who have the potential to become future research leaders. These awards are excellent opportunities to peruse your research interests alongside a training programme focused on personal, professional and research skill development. Fellowships are available at various career points from PhD to professor (e.g. doctoral, postdoc, mid-career). Fellowships are judged on the three Ps: (i) Person (career trajectory and future leader potential); (ii) Place (expertise of the institution and supervisors/mentors); and (iii) Project (quality of the scientific methods). Fellowships are notoriously competitive; for example, the Medical Research Council (MRC, 2018) 2016/17 fellowship application success rate was 18 per cent. People often wait one to two years after their PhD before applying for a post-doctoral fellowship to allow time to build their CV and publish papers.

In contrast, project grants are all about delivering a specific project. Therefore, they are prominently judged on the proposed project, including the importance of the research question and methodological quality, and the research team, including expertise in the field and track record. There are many different types of these grants available (e.g. charities, government, industry) with different scopes, remits and funding limits. Research Professional (2018) is a useful website which list different funding opportunities and you can search by discipline, award type and award amount .

The third option, which is well suited to early/mid-career researchers, is small grants, such as travel awards and small grants for pilot data. These applications are often substantially shorter than those for fellowships or large project grants, and are a great way to build your CV and develop grant writing skills. PsyPAG bursaries are a great example of a supportive, peer-reviewed funding source for small grants (http://www.psypag.co.uk/bursaries-2/).

Know your funder

No matter which type of funding you are applying for, one of the main reasons funding applications are unsuccessful is that they do not fit the funders' mission or purpose. Therefore, before you begin writing, you should first check the funders' brief which details their remit, eligibility criteria and funding limits. If in doubt, contact them directly to find out. Funders have key values and you need to make sure your application reflects these alongside delivering your project; for example, the National Institute for Health Research (NIHR) are passionate about including patient and public involvement (PPI) in research and adding value in research (maximising the potential impact of research) which you would demonstrate through a comprehensive dissemination plan.

Get the timing right

Grant writing can be time consuming; it's important to allow yourself as much time as possible and be strategic with your time. The time required will depend on the type of funding; for example, 12 months is recommended to prepare a fellowship application, but a small travel grant could take one month. Know the submission deadline in order to plan your timeline to ensure the application is submitted on time (Box 1). Download the template application form, usually found on the funders' website. Each funding application will be different, so the template is important for you to know exactly what information is required and what you will need to plan/do to complete each section; for example, do you need statements of support from anyone, what information do you need other people to provide?

Box 1: Top tips for timeline planning

What are the internal deadlines and sign off processes? Usually grant applications (even small ones) need to be signed off by a senior person. There may also be other internal deadlines such as internal peer review. Often you need to finalise your application weeks before the funders' deadline to account for internal processes. Therefore, check your department's policies.

What input do you need from others? Often you need input from others, such as statisticians (e.g. sample size calculations), methodologists (e.g. outcome measures), clinicians (e.g. clinical pathways), research support (e.g. costings or legal information). If you are involving a clinical trials unit they will have their own processes, such as new business forms. Get in contact with these people early even if you haven't finalised your research ideas.

Do you want input from the Research Design Service (RDS)? The RDS provide advice and guidance on funding proposals free of charge for any national, peer reviewed funding competitions for applied health or social care research. Contact them early on to make the most of this service. https://www.nihr.ac.uk/about-us/how-we-are-managed/our-structure/research/research-design-service/

Will anyone be on annual leave or out of the office? Check the schedules of your co-applicants and anyone else involved.

What does a grant application look like?

All grant applications are slightly different, but the following items are usually standard requirements:

- Scientific abstract: a summary of your proposal, you may be required to provide a plain English summary as well.
- Aim/Objectives/Research question.
- Background and rationale: this will be a mini literature review highlighting the gap in the evidence.
- Methods: a detailed summary of your research plan.
- Costings: detailed costs and justifications.
- Timeline.
- CVs of the research team.

Sell the importance of the topic

The reviewer needs to be convinced that your project is important. A strong background section is essential to engage the reviewer and demonstrate the importance of the problem and, therefore, the need for your research (Box 2). The research needs to be novel but

also address an 'important' problem/research question. Everyone thinks their research is important (we wouldn't be doing it otherwise), but it's your job to convince the reviewers who may or may not be familiar with your field.

Citing important papers in your field demonstrates your knowledge of the topic and citing your own work and/or your team's or institute's demonstrates your expertise in the field. The importance should be framed in the context of different stakeholders, including:

● *Academic evidence:* how your proposal fits with other research and what gaps in the literature you will address.
● *Demand from policy or organisations:* many policy makers and organisations have documents detailing their long-term goals or research priorities, such as the British Psychological Society Strategic Plan (2015–2020) (British Psychological Society, 2015) or the British Heart Foundation Research Strategy (2015–2020) (British Heart Foundation, 2015).
● *Demand from the public:* state if your research addresses published research priorities from the public/communities. Alternatively, do your own research prioritisation to inform your proposal (e.g. a survey, stakeholder engagement event or PPI).

Box 2: Top tips for selling the importance of the problem

Be specific and use statistics to describe the scale/importance of the problem. For example, instead of *'many people living in the UK have had a stroke'* use statistics to create impact: *'there are over 1.2 million stroke survivors in the UK'*.

Do not assume the reviewer knows why your topic is important, spell it out. Instead of a vague statement like: *'stroke causes burden to society'* be specific: *'stroke is the second leading cause of death and third leading cause of disability worldwide.'*

Adapt your message to your audience. In the example above, if you are applying for funding from a stroke charity you won't need to say broadly why stroke is a problem, but you need to explain why your specific research is important in the context of other stroke research.

Methodological quality

Scientific quality is a critical component that funding applications are judged on. The methods section is usually the longest, most detailed section and can be daunting to write (Box 3). Start with clearly defining your research question, aims (overall goals) and objectives (specific statements that define measurable outcomes). For health and social care research, use the PICOS structure (Population, Intervention, Comparator, Outcome, Study design), if appropriate. If your project has multiple work packages (interlinking projects); it's essential that these directly link to your aims/objectives and that you signpost how work packages feed into each other. Lack of detail in the methods, such as recruitment strategies, is a frequent criticism from reviewers. It can be helpful to use reporting guidelines such as EQUATOR guidelines (EQUATOR Network, n. d.) to inform how to structure your methods and what details to include. Limited word count is always a challenge and one of the skills of grant writing is learning to write succinctly. Looking at other people's proposals is a good starting point.

Patient and public involvement and stakeholder engagement

Public involvement and stakeholder engagement is when the general public and your key stakeholders are actively involved in research projects, such as contributing to the design and delivery of the project as opposed to taking part in research as participants (INVOLVE, 2018). It is good practice to collaborate with your target group during grant development, often providing constructive input. You may also want to include someone from your target group as a co-applicant.

Box 3: Top tips for overcoming the blank page

> **Shut up and write.** Often we spend a lot of time talking about ideas but it's when you start writing that more questions emerge and the project changes. Therefore, start writing early even if the project isn't finalised. You will be tempted to procrastinate by Googling 'how to write a methods section' etc.; just get writing! There are virtual 'shut up and write' sessions on Twitter that may be useful (search #shutupandwrite).
>
> **Snack write.** Many people fall into the trap of waiting for a full day with no meetings before they start to write, which means writing gets delayed. Learn to write in one/two-hour windows. Alternatively try the Pomodoro technique: 25 minute sessions separated by a short break. Shut down your emails and turn your phone off to avoid distractions.
>
> **Keep it flowing.** In the early stages just write, don't edit or worry about creating a perfect sentence. If you get stuck finding the right word or you don't have a statistic/reference to hand, line just put a marker [— or xxx] in its place and come back to it later.

For applied health research, funders require patients and the public to be involved in grant development and have planned public involvement included in the proposed project. Be specific in reporting the PPI you have undertaken and give examples. Everyone will write 'we have included patients in the design of our study'; give specific details of the PPI activities and how these contributed to your proposal. The only way to write a strong PPI section is to go out and do it properly. Allow plenty of time; for guidance and suggestions on how to involve your patient group, explore the INVOLVE website (http://www.invo.org.uk). For grant development, you can apply for funding from the Research Design Service for PPI activities (Research Design Service; RDS, n.d.). Importantly, public and stakeholder involvement is different to collecting pilot data and you do not need ethical approval.

Showcase the research team

In addition to having an important research question and sound methodology, credibility of the research team is key. You need to demonstrate the ability to deliver the proposal through the expertise and track record of the research team/supervisors/mentors. Increasingly, funders expect multidisciplinary research teams and lay co-applicants. Decisions about who should be involved in the proposal should take place at the early planning stages with transparent conversations about people's roles and expectations for input. Consider the balance between capacity and experience of your collaborators. You may want to collaborate with the world leader in your field, but they are usually the busiest people who have limited time to contribute to your proposal. Many funders are happy for early/mid-career researchers to lead funding applications if it's demonstrated they have mentorship and support from an experienced researcher.

For fellowships, the 'person' element is a key component that the proposal is judged on. You need to demonstrate why you are a potential future research leader (awards, publications, collaborations) and how the fellowship will accelerate your career trajectory. Think about where you want to be in five to ten years and what skills/experience you need to get there. How would the fellowship enable you to develop these skills and experiences?

Costings

You need to have an estimate of what your project will cost from the start to make sure you fit the funding limits because often these limitations dictate the scope of your project. It's never a good idea to try and deliver an ambitious project without adequate funding – reviewers will

also pick up on this. Have a look at the budgets of projects that have been funded by your target funder to get an idea of what they have funded in the past. Funders usually have guidance on costings, such as maximum amount for conference travel or whether they will pay for open access journal costs. Use similar funding applications from colleagues as a guide for cost and ask them if there is anything they forgot to cost (often travel – including parking; stationery, archiving and dissemination costs are forgotten). It's a good idea to keep an Excel spreadsheet to document costs as you go along. Be realistic with cost as funders will pick up on inflated costs. Make sure you justify all costs, particularly those that are higher than expected; for example, if you need a powerful computer for big data analysis. There is normally someone in your institution, such as a research facilitator, who can provide guidance and calculate staff cost, desk fees, etc., but connect with them early on.

Take time to revise and edit

The hardest part of writing a grant/fellowship application is the first draft, which makes editing the fun part, but only if you factor in time to do this. Reviewers only have your written application to judge you on, so typos and small errors can be misinterpreted as rushed or careless even if you have spent lots of time on it. The first thing to check is content and structure: Do your methods fit your aims/objectives and does the proposal tell a logical narrative? You would be surprised how difficult it can be to make sure aims and methods match up particularly because the project evolves as you write the application. You may need to tweak your original aims/objectives to reflect the revisions to your research plan. Make sure your proposal has a clear and logical structure that flows well. It is good practice to put the application away before editing it. Tackle the word-count; chances are you will be over the word limit and even if you are within the word-count, less text is always preferable. Sometimes this needs a second pair of eyes. Next focus on 'readability'; reviewers often have many applications to read and very limited time. Thus, a clear, concise and well written application is advantageous (Box 4).

Box 4: Top tips for increasing readability

Use headings and subheadings to structure the text; quickly tell the reader what each section is about; and act as a guide to find particular information.
White space makes your application look less crowded and easier to read.
Structure paragraphs using the inverted triangle: first sentence is the main point and signpost for the paragraph
Avoid wordiness: with limited word count get to the point straight away. This also reduces the word count. For example:
~~It is worth pointing out in this context that~~ *Turner et al. (2017) found …*

Is it worth it?

Funding applications have notoriously low success rates and there is an element of luck involved, particularly regarding reviewers and the funding panel. However, don't let this put you off. One rejection is not the be all and end all; make sure you have a plan B, C and D for what you are going to do with your proposal. Furthermore, there is much to be gained from the process of writing a funding application. You will develop many skills through this process, such as writing skills (grant writing is different to writing journal articles), developing costings and knowledge of intellectual property. It is also a great opportunity to stay up to date with the literature and build new collaborations with co-applicants. Therefore, do not underestimate

the experience of grant writing, if you are not successful it hasn't been a waste of your time (it often takes a bit of time and reflection to recognise this).

If you are successful, make sure you take time to celebrate and appreciate that your hard work has paid off. You often have a few months before you can receive the funding so use this time to start preparations for your project and, if available, contact post-award support teams in your department.

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Academia and beyond: Exploring career options for postgraduate students

Laura Oxley

Working in academia is the aspiration of many postgraduate students, but intense competition for job vacancies and the prevalence of temporary contracts may make a non-academic career seem more inviting. This article outlines how having an alternative career and remaining involved in academia does not have to be mutually exclusive.

Introduction

When embarking on the road to postgraduate study, it may seem that the obvious destination is a career in academia. However, this is not always the case. In fact, graduate destination surveys have found that only around one third of PhD graduates actually go on to work as a higher education teaching professional or university researcher (Claeys-Jackson, 2016). This means that the majority of PhD graduates enter careers outside of academia. Given the competitive nature of the post-doc landscape, this is perhaps unsurprising; however, does one really need to choose between an academic career or a career outside academia? Having an alternative career and continuing to be involved in academia does not necessarily need to be mutually exclusive.

In this article, I will share my experiences of working in a non-academic career, which is still closely linked to my area of PhD research. I will also share reflections on how I have managed to remain involved in the world of academia, despite this not being my main career path.

While the focus of this article tends to be on PhD students, the advice that is outlined is also applicable to postgraduate students on Master's courses or other postgraduate qualifications, who may be seeking academic work post-graduation, for example, as research assistants or trial co-ordinators.

Careers outside of academia

Having put an immense amount of time and effort into completing postgraduate study, it is natural that all graduates will want to benefit from the investment they have made. This may seem like it will be more difficult if embarking on a non-academic career, but there are many careers outside of academia that offer the opportunity to draw on the skills and knowledge gained through postgraduate study. This is particularly the case for psychology which is such a diverse discipline and offers a multitude of career directions. For example, there is an increasing demand for behavioural researchers in a variety of industries, including health care, law enforcement agencies, and private companies. There is a projected 12 per cent increase in employment opportunities as a behavioural researcher between now and 2024, which is above average growth for other careers (Price, 2018). Some of the advantages of pursuing a non-academic career path include a wider choice of employers and roles, less competition than academic posts in many employment sectors, and more opportunities to gain a permanent contract and job security.

The careers service within your university can be an excellent resource to help explore your career options. As a starting point, university careers services usually have a wide range of resources and information available to read. If you have specific questions, then an appointment with a careers advisor could also be helpful.

Postgraduate study equips you with a range of skills that are easily transferrable to careers outside of academia. For example, writing your thesis demonstrates your ability to communi-

cate clearly, present written reports, and use word processing software competently. Other skills that you will almost certainly develop through postgraduate study are team work, time management, and project planning. The analytical skills that you acquire as you conduct a literature review and analyse your research data will also be attractive to employers.

Even if things have not gone to plan, you will still have developed useful skills that an employer will value. For example, having to repeat an experiment that did not work first time demonstrates problem-solving skills and persistence, and having multiple supervisors with conflicting viewpoints showcases your ability to negotiate successfully.

As a PhD researcher in the area of educational psychology, I have entered a non-academic career which closely aligns with my research topic of behaviour management in schools. I am currently studying part-time for an academic PhD, rather than a professional doctorate, and as such I am not working as an Educational Psychologist. However, there are many other careers within the education sector that draw on psychological knowledge. For example, working as a Specialist Teaching Assistant to support children who have Special Educational Needs (SEN), as a Child and Family worker to help families with complex needs, or as a School Counsellor supporting children who demonstrate challenging behaviour in school.

A day in the life of…

In my current job, I work with senior school leadership teams across several different schools to support students who are at risk of being excluded. There are many opportunities in this role to apply my knowledge of psychology to real life situations. For example, knowing about attachment theory is helpful when working with a child in foster care who has a complex family background. I am able to use this knowledge to advise school staff and to inform the support plan that is developed with the school.

The majority of my time in this role is spent meeting with students, families and school staff, and discussing ways to resolve the students' challenging behaviours. Communication and negotiation skills are key to my role. Having an understanding of social psychology has been helpful in developing these skills.

In a similar way to the given example, psychological knowledge can be applied to non-academic careers in a range of contexts. For example, careers in law enforcement, in health care settings, or in marketing and advertising will all benefit from drawing on aspects of psychology.

Careers in academia

In this section of the article, the positive aspects of an academic career will be explored, as well as considering the competitive environment of academia. This will be followed by a discussion on teaching activities and outreach activities, ending with some thoughts on the skills required for a successful academic career.

Developing a career in academia may seem a tempting prospect. Working in an academic role means that you may be able to concentrate on what you are really interested in and have the opportunity to share your passion through teaching and mentoring. There may be the additional benefit of having autonomy and freedom of what to do with your time. However, it is important to be aware of the difference between research focussed and teaching focussed roles. These can vary between universities and you will find that some universities are more teaching focussed, whereas others are more research intensive, such as the Russell Group universities (European University Institute, 2018).

Often lectureships will include teaching duties as well as research opportunities. There can be several variants of research and teaching contracts, depending on the position. One aspect to consider carefully is the potential conflict between the time needed to produce high-quality research and meeting teaching commitments (European University Institute, 2018).

Another consideration is the fierce competition for academic posts, with post-doc positions often being on a temporary basis. If you have already developed a career outside of academia, it can be particularly difficult to consider applying for a temporary contract. It may mean that you have to give up your job security, as well as losing professional affiliations and contact with networks.

Working as an academic requires a competitive spirit and can be extremely demanding (Sandiford, 2018). However, there are also careers outside of academia that are competitive and demanding. Each individual needs to explore their options carefully and make an informed decision about their career goals. This is an area where your university careers service can be of assistance.

Postgraduate students may fear that pursuing a non-academic career could be perceived as a failure (Kruger, 2018), but this is not the case. As discussed, there are many careers outside of academia that utilise the knowledge and expertise gained during postgraduate study. One benefit of working in a non-academic career is that it enables you to pursue your passion for a subject on your own terms as a hobby, rather than as something that you have to do as part of your working life with the associated targets and pressures (Perel, 2018).

Combining academia and a non-academic career

There are ways in which you can stay involved in academia whilst maintaining a non-academic career. I work in my current job on a part-time basis and have been able to complement this role with several teaching opportunities in Higher Education. As I am still in the process of completing my PhD, I am already inherently involved in the research side of academia. Being able to take on teaching opportunities has allowed me to explore other aspects of working in an academic role without having to give up my permanent job. Organisation and time management have been key skills in balancing these different commitments.

University departments often advertise opportunities for postgraduate research students to become involved with teaching. Sometimes teaching opportunities are also offered as part of a scholarship. While often aimed at PhD students, Master's level students can also get involved in teaching depending on the university and course. These roles are worth applying for as they give you the chance to gain work experience in an academic role, share your knowledge about your subject, and get paid to do this.

However, while a teaching role is good for highlighting the benefits of a career in academia, it is important to be aware that this can be demanding. As well as the time needed to lead the teaching sessions, you also need to take account of planning and preparation in advance, as well as involvement in marking assignments and giving feedback.

If you do decide to explore a teaching opportunity, sometimes you may find there are suitable teaching roles being advertised in other departments in your university, outside of Psychology, so it is a good idea to explore what is available. For example, I have taught on modules in education and social policy.

Learning to teach in Higher Education

While there is some overlap, teaching in Higher Education generally requires a different set of skills to conducting research. To support the development of these skills, I took part in a structured programme run by my university aimed at aspiring academics. The York Learning and Teaching Award (YLTA) is a nine-month accredited programme designed to support PhD students develop skills in teaching in Higher Education. Participating in a structured programme gave a focus to the teaching opportunities that I undertook as I was required to evaluate and reflect on the teaching process. In addition to seminars and workshops on theories of teaching and learning, students also received the support of an experienced

academic mentor. As an early career academic, this was a positive experience and helped to build my confidence teaching in a Higher Education environment.

The YLTA is aligned with the UK Professional Standards Framework (UKPSF) and is accredited by the Higher Education Academy (HEA). This meant that, upon successful completion of the programme, I gained the status of Associate Fellow of the Higher Education Academy (AFHEA).

Other universities run similar programmes to help develop the skills of aspiring academics. It is worth making the commitment to participate if you have the opportunity to do so. Holding a teaching qualification is increasingly becoming expected of those applying for lectureships. If you have the opportunity to participate in a programme that offers HEA accreditation or similar, it is an excellent addition to your CV when applying for academic jobs. It demonstrates to potential employers that you have met high-quality standards as a teacher in Higher Education.

Other than teaching, there are opportunities to work on widening participation initiatives within your university. These tend to involve working with sixth form students who are considering continuing to Higher Education. Examples of such programmes include Realising Opportunities and the Brilliant Club. I have worked as a tutor on widening participation programmes which involved mentoring individual sixth form students to complete an academic assignment. This role also gave me experience of marking assignments, table marking with colleagues, and giving written feedback to students. All of these are useful skills to develop when considering an academic career, particularly teaching focussed careers and peer reviewing work. This experience also develops skills that are transferable to other careers, such as interpersonal skills, communication, and team work.

Conclusion

As outlined in this article, there are benefits and drawbacks to pursuing careers inside and outside of academia. There is no 'one size fits all' career path for postgraduate students to follow. Postgraduate students who decide not to pursue an academic career have not 'failed' in any way. They will be utilising many valuable skills, developed over the course of their study, that are transferable to non-academic careers.

Equally, embarking on a career outside of academia does not mean that you will be unable to remain involved in academia or that you will not be able to take on an academic role in the future. The skills that you gain throughout your PhD will be transferable to different career paths and are likely to be highly valued by employers. It may be that the question is not really whether to choose between an academic and a non-academic career, but instead to consider how you can combine elements from both inside and outside academia to find a career path that suits you.

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Part IV: Personal development

Section leads: Claire Melia, Danielle Hett & Liam Knox

A Guide for Psychology Postgraduates: Surviving Postgraduate Study (second edition)

Part IV: Personal development
Section leads: Claire Melia, Danielle Hett & Liam Knox

Overview

Throughout your postgraduate studies you will learn how to conduct research, how to write proposals and grants, and even how to present research findings and teach; at the same time, you will develop many personal skills. Within this section we have five fantastic articles which explore a range of personal difficulties you may face during your postgraduate studies, with advice on how to overcome and learn from these situations.

Firstly, Khyati Tripathi (University of Delhi), Ashleigh Johnstone (Bangor University), and Michelle Jamieson (University of Glasgow) explore different strategies for coping with a health condition in *Managing PhD with a health condition*. With reflections on personal experience, this article provides guidance on some of the ways in which you can make your studies more manageable alongside a health condition, both mental and physical.

Secondly, in *Taking care of yourself during the PhD*, Kohinoor Darda (Bangor University) and Vanessa Dias (University of Kent) discuss the importance of self-care, something we are all guilty of neglecting at times. This article draws upon the 5D Appreciative Inquiry Model to help you think critically about your project, followed by 10 key tips for self-care during your studies.

Following on with this theme of self-care, Jemaine Stacey (Nottingham Trent University), Catherine Talbot (University of Exeter), and Astrid Coxon (University of East Anglia) consider how postgraduate study can at times be lonely and building a support network around you can be vital. In *Self-care and social support in postgraduate study* the authors explore the importance of such a network and discusses a range of ways in which to build your support network.

Unfortunately, some situations cannot be resolved through self-care and drawing upon your support network, but may require time away from your studies. This can be an incredibly difficult situation and hard decision, but Laura Oxley (University of York) and Danielle Hett (University of Birmingham) have provided some excellent guidance on how to navigate this in *Putting the PhD on pause*. All the way from making the decision, to the practicalities of taking a break, and deciding to return, this article will guide you through the considerations of taking a Leave of Absence.

Finally, Kathryn Bates (University College London), Lucy Cooper (Sheffield Hallam University) and Abigail Webb (University of Exeter) end the *PsyPAG Guide* (second edition) with *From uncertainty as a first-year student to uncertainty in the field: What to expect and how to deal with it*, a must-read article that all of us can identify with. Whether it is uncertainty around your project, or what to do afterwards, uncertainty is something that we all deal with during our studies. This article provides great advice on how to manage this uncertainty both during post-graduate study and also wider afield, ultimately accepting that although we cannot completely free ourselves of uncertainty, we can embrace and learn from it.

Finally, I cannot express enough gratitude to my fellow section editors, Danielle Hett (University of Birmingham) and Liam Knox (Aberystwyth University) both of whom have been absolutely vital in bringing together the submissions in this section. Whether you're undertaking a Master's or doctorate, whether you're considering taking a break or learning to juggle self-care with work, we hope these articles help provide some guidance and reassurance. If there is one message from this section then it is to acknowledge the import-

ance of looking after yourself, including knowing your limits and not being scared to ask for help from others around you (including from us here at PsyPAG!).

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Managing your PhD with a health condition
Khyati Tripathi, Ashleigh Johnstone & Michelle Jamieson

Managing your PhD with a health condition might be difficult, but it is not impossible. This article underlines various ways in which a quality PhD can be completed while looking after one's health.

There are times in life when we are not able to accomplish what we want, not because we are incapable, but because our health will not allow us. Life is full of uncertainties, and health issues are one of those. A medical condition waits for nothing, not even for a PhD. Whether health issues are present before starting postgraduate studies, or whether they develop during the PhD, it is important to make careful plans to ensure studying is achievable without it being detrimental to our health. Completing a PhD may seem like an uphill climb with a chronic condition and might eventually become self-debilitating if it is not dealt with effectively. It is also imperative to understand that physical and mental health share a close relationship and play a crucial role in sustaining through a PhD. Ignoring mental health may lead to physical discomfort and vice versa.

If you are already registered on a PhD programme, then it is very easy to be pulled into the vicious cycle of procrastination and guilt, especially given the wide variety of elements that make up a PhD – from fieldwork, to meetings and progress reports. The PhD itself might feel daunting, and to manage health over the all-consuming PhD work might lower one's motivation, leading to withdrawal from the work we perceive to be most difficult. It is important to take care of one's wellbeing while undertaking a PhD. The long hours and stressful environment means that everybody needs to take a break, treat themselves at times, or just generally be nice to themselves. However, this becomes even more important when managing a health condition alongside the PhD. The rest of this article discusses several ways in which we can manage this, as well as providing an insight into personal experience.

Exercise
The NHS have reported that as a society, we are spending more and more time sitting down, with many adults remaining seated or lying down for at least seven hours a day – not including time spent sleeping (NHS, 2016). This is not too surprising in the world of academia considering so much work is computer-based. Through trying to be more active in a sedentary environment we may be able to build mental and physical health benefits, as well as improve wellbeing and cognition.

It has been suggested that taking time out of a busy schedule to take part in exercise can equip a person with better resources for handling their stress, and therefore lead to a greater sense of resilience and self-belief (Childs & de Wit, 2014). As noted earlier, having a health condition can take a toll on a person's mental health, making it even more important to develop a range of coping strategies. There is also a wealth of research discussing the cognitive benefits of regular exercise, suggesting potential improvements to memory, attention, and cognitive flexibility. Interestingly, this has been found in various types of exercise and sports, for example, running (Kao et al., 2018), cycling (Chang et al., 2015), and martial arts (Johnstone & Mari-Beffa, 2018), among others.

However, it is important to consider that for some people exercise may not be possible, and that trying to engage in too much physical activity may worsen one's health condition. Consider a person with anxiety. They may understand the benefits of becoming more active,

but actually planning to do that may lead to more anxiety induced thoughts. Thoughts such as 'What if I wear the wrong type of sportswear', 'What if my gym card doesn't scan?', 'What if I'm not picked for a team?', and 'What if I have to introduce myself to everyone?'. A physical health condition could also produce barriers, such as a lack of accessible sport facilities in a person's local area, or symptoms such as increased fatigue may prevent exercise. This is why it is important for anyone wanting to start a new exercise regime to access support and consult with a medical professional first.

Cutting things down into manageable chunks

It is important for our wellbeing to accept that some things are out of our control, and unfortunately, our health status can be one of those things. Being realistic and assessing the situation to see what is going on can help us to come to terms with reality, but also provide a sense of motivation to work on issues that are within our power to change. One way to think about this is to approach the PhD using the Three P's. These are: Planning; Prioritising; and Playing one day at a time.

Plan

We all know the PhD is not just about thesis submission, it is about persistence and routine. Nothing helps us stick to a routine more than a planner. A planner is going to be your best friend throughout the PhD, and can take the form of a wall calendar, a diary, a spare notebook, or a mobile app. Planning helps us keep track of things we need to complete, whether that's writing a specific number of words a day, applying for a conference, or keeping up with the current literature. Through the act of planning we prime our subconscious mind, which gets us in the right mindset to begin the work. It can be a good idea to maintain a health planner alongside the PhD planner. A health planner will keep reminders of medical appointments, medication renewal dates, symptom severity, and self-care days. It can be helpful to sync these planners to make sure no vital appointments or meetings are missed. However, it is essential to remember that your health is more important than the PhD, and you should plan PhD work around health routines and not vice versa.

Prioritise

We all have days when we feel stuck and unable to move forward. In times like these, it is important to reflect on what is bothering us. If it is workload pressure, or because of too many unchecked items on a to-do list, then prioritising is key. It is understandable and completely acceptable to have incomplete lists because a PhD is not a linear path. It is an uncertain journey and the best we can do is to be ready for the uncertainties. To aid prioritising, it can be helpful to consider which piece of work would provide the biggest stress-relief upon completion, then work on that before repeating and deciding the next piece of work to do. Prioritising would not only help get urgent things done, but would also boost confidence due to the to-do list shortening and progress being made.

Play one day at a time

With a health condition, each day can be different. On some days we may feel on top of the world, but others may not feel productive at all. It is important to recognise that nobody is 100 per cent productive all the time. Instead we should assess how we feel each day, and take it from there. Getting up in the morning and then creating a to-do list is one simple trick to help us feel more productive. From a pool of things on a planner, pick the ones that suit your health on the day. If you are feeling energetic, get up and get going, get those words written today but if you are not feeling so active, read something that is going to help you write those

words when you feel energetic tomorrow or just sit down with a cup of soothing tea and create flowcharts and schematic diagrams for what you are going to write next. Sometimes all we need is a group of people working together. Creating or joining a 'Shut Up and Write' group (find out the chapter nearest to you on www.shutupwrite.com and if there isn't one, you can create it) or having an accountability partner might help complete those pending chapters. While writing, you could either work in blocks at a time (e.g. two hours) or you could also use a time management technique called *Pomodoro technique* (Cirillo, 2006) and work in Pomodoros of 25 or 30 minutes separated by small breaks. Think of 'today', because anything that is done today will help towards the bigger picture, even if it only feels like a small step.

Knowing when to take a break
In life, there will always be moments where we feel overwhelmed or burnt out. These moments may be common during a PhD, but perhaps even more so when one is battling a health condition. It is also important to consider that at times, these moments themselves may lead to ill-health if we don't take care of ourselves. Sometimes this may just be taking a day off, or enjoying the weekend work-free, other times it may mean taking a short official break from studying in order to get our health back on track. This does not mean that we're a failure, it simply means that we're human.

The importance of support networks
The importance of a good support network is often understated, but when dealing with poor health, it can be invaluable. Confiding in people who are going through similar situations can be useful to help normalise any thoughts and feelings that someone is experiencing. It is based on the belief that those who have faced and overcome adversity can offer support, hope, and encouragement to those going through similar situations. This can be crucial, as previous friendships can often fail in light of some serious health conditions. This may be due to a number of factors, such as friends not understanding the limitations ill-health can put on a person.

This is where peer support comes into its own, and its benefits are countless. A supportive network can empower the individual to deal with stigma and social isolation that can come with dealing with serious health issues, whether physical or mental health related. Engaging with peer support in particular can boost self-esteem and confidence.

Social isolation poses a risk when dealing with poor health. A strong support network also provides an environment in which people can discuss what they've been going through. Within peer support circles, there is a hope that people feel comfortable enough to share their emotions in an empathetic and non-judgemental environment. This sharing nature can increase self-esteem and confidence, through being accepted for who they are when others have previously rejected them.

When living with a health problem, especially mental health, stigma can be a barrier to seeking help, as a person may not want to open up about their condition due to a fear of being judged. Engaging with a peer support network of people going through the same thing may reduce these feelings, and therefore encourage the person to go forward and seek help for their condition.

'Recovery' from poor health, can often take a long time, and it is not a simple journey. Within such a changing timeframe, it can be easy to lose motivation and hope for getting to a place where you feel better. Having a solid support network, and also interacting with others facing similar issues, can help to provide a sense of motivation and hope that recovery is possible. Meeting people who have been on the same road, and perhaps still are, can be a rewarding experience, as it can give hope and motivation to others to continue their own journey.

Relationship with supervisor

One other person who plays an indispensable role in the PhD journey is the supervisor. When planning to register for a PhD programme, it is extremely important to take good time searching for a supervisor who you feel comfortable enough to spend at least three years working with. Disclosing any health conditions at the beginning can open a dialogue that can continue throughout the programme, and builds a foundation for a healthy relationship. However, it is never too late to discuss health matters with your supervisor, so those people who are already completing a PhD shouldn't feel as though they have missed the time for that conversation.

As PhD students, we often aim to meet our supervisor's expectations for a quick 'good job' or pat on the back. If the supervisor is unaware of any health conditions, they may end up thinking the student is being lazy or slow if their expectations are not met. On the other hand, if the supervisor is informed, they will be able to help the student set more realistic goals and overcome setbacks. At times simply knowing that the supervisor is on side can help immensely, it boosts confidence, increases motivation, and accelerates progress.

Personal experience by Khyati Tripathi

I am a rheumatoid arthritis patient and I entered my PhD with excruciating pain in my body, two disfigured fingers in the left hand, and a few functional losses in both hands. Initially, of course, it put me in a deep dark hole where I felt helpless and unable to take care of myself. My parents played a crucial role in getting me through my everyday routine. While sleeping, my father would turn me every five minutes in bed from one shoulder to another to prevent the unbearable pain that could emanate from the body weight being concentrated on one shoulder. I was most scared of the 'steps'. I'd have to use all my shoulder strength to drag myself up, climbing each step and at the end of it I'd feel wrecked and broken, not just physically but mentally as well. And the most 'embarrassing' thing? was when people would ask, 'What happened? Why are you limping?', 'What happened to your hands?', 'Are you not well? You need help?' while I would politely say, no thank you, inside of me, I'd scream 'yes! I do. Can you take away all this pain!' The PhD could prove to be overwhelming with a health condition. Like an invisible force it would push me into the phases of concern and anxiety. It inundated me with self-doubt and constant evaluation of myself as different from others. It was indeed a deep dark hole which instilled in me that I am weak and vulnerable because I am not like others. That feeling when you see people having what you want but there is no way you can get it frustrated me because I would look at everyone's hands and then their happy faces and their hands again. But what I learned from being inside that hole and being engulfed by all sorts of insecurities, is, that 'possibility' never leaves you. There is always a possibility of the bright daylight penetrating the darkness of this deep hole. My excruciating pain taught me to never feel that 'this is the end' because there is always a possibility at the end of the road and it started simply with 'chopsticks'. Holding chopsticks was a far-fetched idea for my hands but one fine day, my friend insisted and taught me how to use those and to my surprise, 'I could hold my chopsticks'! And my chopsticks taught me the power of possibility. If we want it, we can get it and we are capable of anything.

Conclusion

The PhD process is not easy; it's a tough road but one that can also be incredibly rewarding. Having a health condition may create more bumps in the road, and even extend the length of time it takes, but it is doable. Finding a strategy to manage your health that suits you best is important, but having faith in your own ability is perhaps the most essential aspect. Always

remember that somebody believed in you enough to give you a place on the PhD programme, so try and keep that in mind throughout the process.

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Taking care of yourself during the PhD
Kohinoor M. Darda & Vanessa C. Dias

In the current article, we discuss key issues faced by PhD students, and suggest ways in which PhD students can take care of themselves in the PhD in order to work to their full potential without leading to burnout.

Does the PhD leave you with any time for yourself? One of the harsh realities of PhD life is no matter how much you work, it feels like it's never enough. It's unsurprising that many PhD students suffer from stress, anxiety, and depression. Work, publish, and network as much as you can – we've all heard such advice. How then, between all of this do you find time for yourself? How do you look after yourself, and maintain a work-life balance? How do you stay organised, clear-headed, and manage to work to your full potential?

Everyone has a different learning and working style, so what may work for others may not work for you. Identifying where to draw the line and where to push yourself is key to having a successful PhD without adversely affecting your mental and physical health, and social relationships. While graduate schools have been keen on providing the best transferable skills training, self-care has been somewhat neglected in higher education institutions. This article is an amalgamation of practical experience and advice from both a past and a present PhD student, along with evidence-based research that tries to answer the aforementioned questions. This article follows a two-part 'self-help' guide on how to take care of yourself during the PhD. The first part is based on previous research. We discuss key issues that lead to anxiety, stress, and depression during graduate studies, and suggest ways in which you can 'think the change', that is, improve your mental health using the model of Appreciative Inquiry. We then introduce '10 self-care PhD rules' that will go a long way in keeping you on track during your studies without leading to burnout.

What we know so far

Whatever journey we embrace in life, we should do it from a place where we are fully perceived and celebrated as whole individuals. A PhD is one such journey – and no matter whether we look at it as 'just a job' or a stepping stone to permanent position, we should make the most of it every step of the way. Recent evidence has shown that ill-health, stress, and depression are common experiences among PhD students (e.g. Else, 2015; Jaschik, 2015); thus, transforming what could be a happy and fulfilling journey into a stressful and – sometimes – traumatic experience.

To understand why students have been struggling throughout their PhD, a few initial studies have been conducted. Common reported factors include feelings of isolation, sense of little progress, precarious career prospects, and lack of social support. There are also some social psychology insights that can be useful to understand why PhD students may face such health and wellbeing struggles. Academia has been known for its competitive and high-achieving environment (Carson, Bartneck & Voges, 2013). To belong and fit in with that culture, PhD students may feel compelled to assume a certain role that is marked by what literature has called 'Type A' behaviours and which are often embedded in competitiveness, time urgency, and hostility (Furham, 1983). Hence, whenever PhD students self-identify with these behaviours, they may be constantly striving to achieve specific goals that don't necessarily make them happy and also leave them feeling that they are in a constant race against the clock with

too much to do. Consequently, some PhD students often feel overwhelmed and experience negative feelings, such as anger and envy, toward themselves and others. These feelings may also be exaggerated by the belief that they need to meet the high expectations held by their supervisors, schools, and universities.

In an attempt to cope with the added pressures, students may engage in unhealthy coping strategies (e.g. drinking, self-sabotage) that will in turn negatively affect their performance and results. Nonetheless, there are other important organisational factors that should be considered. Key factors include the way students organise their workload and the work-life balance they achieve (i.e. how many working hours they spend on their PhD, making sure they make time for hobbies/socialising with friends, etc.). Others include being able to access appropriate training/resources to complete their work as well as having good working conditions.

As a PhD student, it is important to learn ways to manage the stresses that come with doing a PhD. The first thing we would recommend is to adopt a self-care approach. According to Richards, Sheen and Mazzer (2014), self-care is our capacity to choose behaviours that allow us to balance the effects of emotional and physical stressors. Such behaviours usually involve a great awareness from our part to know when we are heading toward mental, emotional and/or physical exhaustion. From paying more attention to the quality of the connections and relationships we hold in life, to the regular practice of physical activity, self-care time must be a priority in your routine as it will give you a strong foundation to complete your PhD successfully. However, we know this is easier said than done.

The 5D Appreciative Inquiry Model

Changing is difficult and requires a lot of energy. For that reason, we would like to suggest a five-step exercise to help you think about what and how to create a more fulfilling PhD experience for yourself. The exercise is based on the 5D Appreciative Inquiry Model (Cooperrider & Whitney, 2005), an organisational change tool developed by David Cooperrider.

Instead of focusing on the multiple problems we may be facing, the model starts with the identification what positive change are we aiming for and what has already worked for us in the past, in order to build a better future. The model guides us through five different stages – Definition, Discovery, Dream, Design, and Delivery – and we will cover each stage separately. This model has been successful in change management because its positive focus activates within us the positive energy we need to engage with the change we want to create. However, this is not the only asset of the Appreciative Inquiry framework: As you may have already noticed, the model works not only with a strength-based approach (e.g. what already works well) but also with questions that are framed towards a positive outlook. The use of this type of questions will appeal to your learning and skill development skills, which will in turn align you with more positive emotional states (Boyatzis, Smith & Beveridge, 2012).

Definition

In the Definition stage, you establish your own affirmative topic (Kessler, 2013). This means that you have to ask yourself about what positive change you want to create in your PhD journey. So, the question here would be '*What aspect of my PhD journey would I like to transform?*' For instance, you may find that being more assertive will make your PhD experience more fulfilling, because you will be able to ask for what you need and establish your own boundaries with confidence.

Discovery

In the Discovery stage, you need to reflect upon what is related to your affirmative topic. You may find it useful to think about stories or situations from the past in which you were successful

or had some positive results. A question that you may pose to yourself is '*Why do I think being assertive would improve my PhD experience?*' or *'How did I feel when I was assertive before?'*. Finding your 'why' and remembering past successes will make you feel more uplifted, engaged, energised and committed to take the next step. If there is nothing in your past that you can relate to, you can also identify people you admire, or feel inspired by, and who somehow represent the positive change you want to create.

Dream

The third stage is the Dream stage, and it consists in creating a personal vision, using the information you generated in the Discovery stage. Here, you imagine yourself at your best, in relation to the goal you want to achieve. You may ask yourself questions such as '*What do I see myself doing at my best?*' or '*How does my life look like when I'm at my best?*'. To make it more concrete, you can create a physical representation of your vision by creating a vision board. This will help you anchor your vision and be more aware of concrete cues that will, in the future, inform you that you have accomplished your goal.

Design

The following stage is the Design stage. This stage involves the creation of potential courses of action to promote the desired change. You have to combine your vision or dream with actionable ideas. At this stage, since you have been working and building upon positive memories and feelings, you will find it much easier to generate and design a full range of possible actions.

Delivery

Finally, you are ready for the Delivery stage. In this stage you will choose the course of action that you feel is best for you, based on your previous answers and motivation. As such, you will review and rank the different courses of action that you have come up with and decide which one you will act upon. At this stage, it is very important that you keep your vision alive and that you surround yourself with people that support your desired change.

In sum, the model of Appreciative Inquiry can thus be a comprehensive tool to help you create a self-care routine. We further propose you a few 'rules' to follow – these will not only help speed up your change but will also ensure that you work to your full potential without leading to a burnout. Of course, do not be discouraged by the word 'rules' – they are by no means compulsory tenets, more like suggestions or tips. They are a collection of tips we have received from our supervisors, friends, colleagues, anyone and everyone who is or is not a part of academia, but have a successful PhD to their name!

Ten self-care PhD rules

1. *Accept setbacks as part of the journey:* Most of us who start a PhD want everything to work well. We are perfectionists who want to control all variables around us. We all know as students of Psychology that there is no way we can account for all factors. There are some things that we have to learn to let go. Some failures we have to take in our stride. It's okay if we fail. We can make up for it in the long run.
2. *Don't be afraid to ask for help:* Whether it's about work or about your personal life, do not be afraid of asking for help. Many times, we ignore signs that our mental health is deteriorating and immerse ourselves in work. There is nothing wrong with asking for help when you need it. If you are not the best at coding, there is no point in spending 12 hours over a script when a programmer in your lab can do it in five minutes. Perhaps they will say no, but what's the harm in asking? In the same vein, if you are upset or stressed about something, talk it out with a friend or colleague. Most universities also have counselling services that students can

access for free. Do not feel ashamed for using them. You can do a quick search around your university's services and check what is available for you. You will probably find out that your university has a specialised team or a whole department dedicated to students' wellbeing. You may find readily available resources online or a list of different services from coaching to counselling that may fit your needs. Some universities offer peer-group support, mentors, and other activities such as mindfulness meditation and yoga sessions.

3. *Learn to be patient:* Remember that things take time. We all know that things never go the way they are planned. If you are patient, things will fall in line eventually.

4. *Build a work and non-work network:* Make sure you have friends and colleagues who are also graduate students with whom you can discuss your day-to-day life. Just talking about daily stresses to someone who is in a similar situations makes life a lot easier. However, do not overdo it! You do not want to talk about work 24/7. Make sure you have a network of friends and family who you can discuss other things with (e.g. sports, news, films, books) – basically anything apart from work!

5. *Do not compare yourself with others:* One of the most common things we do as graduate students is compare our work to others. You cannot compare someone collecting data from 50 participants using behavioural measures, to someone who is running a scanning experiment using functional magnetic resonance imaging (fMRI) with 50 participants. The demands of the data collection, time consumed and effort needed are clearly different. Also, others may have 10 publications, and you may only have one and that's okay. Allow it to encourage you, not stress you out. Stress will only make future work even worse. Allow yourself to work diligently, but at your own pace.

6. *Know what makes you happy:* Find time for activities that make you happy outside of work. It may be reading, dancing, music, sports, anything – make sure you take time out for the things that make you feel at peace and relaxed. Add them to your calendar so as to make sure they are a constant part of your PhD journey. Join a student club or society if you want some company – it's also a great way to make new friends!

7. *Sleep well:* Different people have different sleeping patterns. Whether you are a night owl or an early riser, make sure you listen to the needs of your body and mind. Sufficient sleep is a necessity to work at your full potential. Try and disengage from work at least an hour before sleeping (if not more). Avoid contact with mobile phones and laptops. Perhaps do some light reading or indulge in painting or writing – or anything else you prefer!

8. *Exercise and eat well:* The food you eat, eating behaviours, and the amount of time you exercise can also strongly impact your performance and mood. Most of us forget that working 12 hours a day also takes a toll on more subtle facets of our mental and physical health. Our postures, our muscles, our attention spans – they all suffer from sedentary work. Exercising and eating well is the key to keep your mind and body fit and healthy. If you aren't feeling fresh, there is no way you are going to reach your full potential in your work!

9. *The importance of weekends:* All of us look forward to weekends, but when work is in full throttle there are some of us who work on Saturdays and Sundays as well. As much as that is necessary sometimes, try and reserve time on the weekends to do activities that make you feel good. Meditate, do yoga, go hiking if the weather permits, soak up some sunshine, or hide behind your book – give yourself some 'me-time' over the weekend! Take a break and leave behind your worries and stresses!

10. *Take a break and travel:* Every now and then remember that there are wonderful places outside of your office that need to be visited. So, go see that wonderful city, soak in the beauty of nature, or watch that football match live! Disengage from work, change your environment, and step outside of your comfort zone. Take some time off and camp underneath the stars and contemplate the vastness of the universe!

As with any other human experience, your PhD journey is very unique. Although your own personality and context surely shape your experience as a PhD student, we hope that you find something useful in this article and our suggestions help you to take care of yourself during the PhD.

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Self-care and social support in postgraduate study

Jemaine Stacey, Catherine V. Talbot & Astrid Coxon

Postgraduate study can often be a challenging and lonely experience. We share our experiences and advice in managing looking after yourself during your research and study, giving particular focus to social support strategies.

Undertaking postgraduate study can be one of the most challenging, stressful, and isolating experiences in the course of an academic career (Cumerma, 2018). As well as the pressures of conducting and managing a large research project as an independent researcher, many postgraduate students struggle to balance their work and personal life. Postgraduate study can be very intense, and students often report poor health and wellbeing throughout the course of their research (Levecque et al., 2017).

In this article, we will discuss some key strategies we have used in managing challenges encountered during our postgraduate study, with a special focus on social support. In the first section, Astrid Coxon will describe her 'three C's' of self-care in postgraduate study, and suggest some simple ways to manage your workload and wellbeing. In the second section, Catherine Talbot will discuss the value of social media for social support by reflecting on her own experiences of using blogs and Twitter. Finally, Jemaine Stacey will outline the benefits of social support and her own experiences of building a support network.

The 'Three Cs' of postgraduate study
Capability
Throughout Higher Education Institutions (HEIs), you will likely come across a phenomenon known as 'imposter syndrome' (Parkman, 2016). This term, first introduced in 1978, refers to an internalised feeling that, despite their numerous achievements, the individual does not feel they are worthy of their success (Clance & Imes, 1978). Anecdotally, I have spoken to academic peers who have explained how they fear being 'found out' as incompetent, worrying that their current position is the result of some error or oversight. Perhaps you have experienced this feeling yourself? Although there is no definitive way to completely eradicate this feeling, there are some practical ways in which you can help manage it.

- *Take a realistic assessment of your current skill-set:* Talk to your supervisors and your peers to gain some insight into your strengths and weaknesses in relation to your academic career. This is not a punitive exercise, but allows you to:
- *Identify areas for growth, and address them:* Use these insights to inform your continuing professional development. This could include training to use specialist software, workshops and seminars, or working on your presentation skills.
- *Celebrate your achievements:* Try writing up an academic CV, including presentations you have given, training undertaken, and any articles, discussion pieces or reviews you have contributed to publications (such as *PsyPAG Quarterly*!). Recognise and celebrate your achievements, and bolster your sense of self-efficacy.

Consistency

Postgraduate study is hugely demanding, and sadly a prevailing rhetoric has developed that, to succeed in academia, individuals must burn the midnight oil and commit to their research over and above everything else. However, adopting this attitude runs the risk of academic burnout and developing mental health problems such as depression (Levecque et al., 2017). Consistency can be crucial to prevent the development of bad habits.

- *Treat your postgraduate studies like a 'regular' job:* This means having days off in the week, regular working hours (where possible), breaks throughout the day and even annual leave. Although a rigid schedule may not suit everyone, it can be a practical way to delineate your work and personal life, safeguarding your leisure time.
- *If you work 'overtime' one day, take it off 'in lieu' later.* The habit of late-night working can be hard to break – recognise when you have overworked in order to meet a deadline, and address it.
- *Try to establish a routine:* Try to create protected time (and protected spaces) for leisure, your family and social life (Powell, 2017). I do the majority of my work in a home office, but I also frequently take my laptop to coffee shops for a welcome change of scenery. I've made it a rule to never take my work to bed, or to the living room, otherwise every space becomes a workspace and it can be very hard to switch off (Cropley & Millward, 2009). I also use a Google calendar and the task management application Trello to help manage my time and prioritise my tasks.
- *Remember to take time to reflect:* Reflectivity and reflexivity are essential but often overlooked skills in postgraduate study. Build this into your work routine. Not only will regular reflection help you to consolidate your understanding, but it creates an audit trail for you to appraise your development over time (see above, 'Capability').

Communication

Even when you have mastered your own sense of self-efficacy and developed a consistent and stable work routine, there may still be times when you feel hopeless, overwhelmed or isolated. Undertaking postgraduate research and study can be a very lonely experience, but it does not have to be this way. Turning to family, friends, your postgraduate peers and your supervisors for support can be an effective strategy in coping with the challenges of postgraduate life (Byers et al., 2014). Your supervisors can give you informed and objective views on your work and capability, while connecting with your peer group can be another means of addressing common concerns such as imposter syndrome.

If, like me, you conduct the majority of your research and study off-campus, it can be even easier to unintentionally isolate yourself. Here, your wider social circle can be particularly useful. Although friends and family may not necessarily have insight into the specific challenges faced by postgraduate students, they can still support you in other ways, and provide welcome respite from academic life (Kinman & Jones, 2008). In my own experience, I have found social media platforms such as Twitter invaluable as a means of connecting with peers in the wider scientific community. In the following two sections, Catherine and Jemaine will discuss the importance of communication and social support in postgraduate study in more detail.

A virtual community of postgraduates: Blogging and #PhDChat

The postgraduate journey can be a lone venture for many students; however, social media could be changing the postgraduate experience for some students by offering a new avenue for social support. While there are many different types of social media, I have found blogging websites and Twitter to be particularly helpful and will focus on these.

While academic blogging offers a great way of communicating your research to a wider audience, it can also be an excellent source of support that you can draw on during your post-

graduate studies. Postgraduates and early career researchers have used blogs to share their experiences, struggles, and critique the working practices of academia (Gregg, 2009). Since postgraduate study can be such an isolating experience, you might find it reassuring to read blogs written by fellow postgraduates. I have found it very comforting to read blogs written by postgraduates as they have made me feel less alone in my experiences and have given me practical advice on how to overcome certain challenges (e.g. making time for self-care). A quick Google search of 'PhD blogs' will locate the most highly recommended and frequently visited blogs written by postgraduate students.

I have also found the act of blogging itself to be a therapeutic process. I created my blog after going through a bit of a blip in my PhD journey and found the process of writing about my struggles to be cathartic. It is also encouraging to know that one day someone else could benefit from reading my story. After publishing one of my blogs about struggling to manage multiple projects, several people tweeted and approached me at work to tell me they completely related to my blog post, reminding me that it is important for us to openly discuss the struggles we face as postgraduates and to not suffer in silence. Setting up a blog is easy to do using websites such as wordpress.com and wix.com. I would recommend blogging to any postgraduate student – your experiences are valuable!

Twitter is another platform that I have used during my PhD to engage with the wider postgraduate community. Other postgraduate students and early career researchers are using Twitter for emotional support, as well as academic support, which is particularly important at this stage of their career (Lupton, 2014). On Twitter, a thriving community of postgraduates share their experiences and support one another using the hashtags '#PhDChat', '#PhDForum', and '#PhDLife'.

As a postgraduate student it is difficult to set aside time for writing. There have been times when I have tried to sit down and write my thesis but have lacked the motivation to do this. During these challenging times, I have found 'Shut Up and Write Tuesdays' (SUWT; O'Dwyer et al., 2016) to be a fantastic writing resource. SUWT is a virtual community of academic writers and on the first and third Tuesday of each month SUWT host three virtual writing sessions on Twitter. The sessions follow the Pomodoro format (two 25 minute blocks, separated by a five minute break). After each writing block the host cheers you on and provides advice. The UK session is hosted at 10am (GMT) by @SUWT, however, sessions are also hosted by @SUWTues and @SUWTNA for those in the Asia-Pacific region and those in the US and Canada, respectively. There is a session to suit everyone, whether you are an early bird or a night owl like me! If you would like to host your own SUWT when a session isn't running, you can use the hashtag #diysuwt to connect with fellow academic writers.

During my PhD, I have tweeted about my accomplishments and important milestones, such as completing data collection or submitting my first manuscript. Other postgraduate students often like these tweets and send their congratulations, giving me a sense of achievement. I have also used Twitter to discuss the less positive aspects of my PhD, such as being overwhelmed with data or suffering from a bad case of imposter syndrome. It is in these cases that I have found Twitter to be particularly valuable, because the online community of postgraduates are so helpful and will often reply to my tweets with practical advice and some much-needed support! It is reassuring to know that you are not alone in your experiences. The constant availability of Twitter coupled with the international community of postgraduates using #PhDChat means that you never have to feel completely isolated as you can tweet about your experiences at any time.

I cannot finish writing about online support without mentioning the memes and GIFs that are frequently shared on Twitter, giving me tremendous joy throughout the course of my PhD. These memes and GIFs joke about postgraduate life and have honestly helped me

through some of the darker times of my PhD. Remember, laughter is one of the best methods of coping!

Building social support networks

As well as interacting with the online postgraduate community, face-to-face support is also important. This section will now focus on social support networks and reflections on how peer support has helped during postgraduate studies.

There are specific challenges involved with each year of postgraduate study; the first year in particular can be daunting as students acclimatise to their new roles. This involves building and managing new professional and personal relationships with faculty and fellow students. These relationships are integral in creating a positive experience during postgraduate study. There are several key factors which have been identified as detrimental to the completion of doctoral studies, one of which is social isolation (Lovitts, 2001). This is defined as a lack of meaningful social connections (Lovitts, 2001). The stressful nature of postgraduate studies coupled with an unfamiliar environment (new university/department) can contribute to increased feelings of social isolation.

A social support network including peers, colleagues, friends and family can help to combat feelings of social isolation and reduce stress (Jairam & Kahl Jr., 2012). This section will now outline personal experiences of engaging with the university community and the benefits of building a social support network. Like most postgraduate students, when I started my PhD I had to contend with a new city, a new university and a lot of new people. After the initial welcome events I found that despite the large numbers of postgraduate students there was not much opportunity to socialise. At other universities it may also be the case that students are situated in a department other than psychology or are one of only a few postgraduate students, making it difficult to meet other people.

To overcome this, I decided to contact all the psychology PhD students and research staff to organise a social event. This became a regular event where we would meet every four to six weeks and go for a meal. The social was useful when I was new to the university as it gave me the opportunity to make friends and socialise with people who were at different stages of their studies. Including research staff was also valuable because I was able to get to know other people in the department and it was good to talk to people who had completed their PhDs as they were able to offer advice, and it was encouraging to talk to people who have successfully completed their studies.

However, the logistics of organising such an event for a large group of people can be time-consuming. Recently, staff at my university have established other opportunities to socialise including a weekly coffee morning which the whole department is invited to. This is a good way to meet people face-to-face and it occurs at a set time and day every week which means there is no extra administration involved. Other ongoing social events which work well include team sports and pub quizzes.

As well as socialising, the benefits of these events are that peers and other academics can provide both practical and emotional support (Jairam & Kahl Jr., 2012). I have found that during different stages of my PhD the type of support I have needed has changed. In my first year it was useful to have practical support, for example; to discuss specific research problems or get clarification on university processes. In second year, students often experience a dip in confidence and motivation referred to as the 'second year dip' or 'second-year blues'. This is where I found encouragement from peers extremely helpful in overcoming these feelings.

At the time of writing I am nearing the end of my third year and find that emotional support from peers is invaluable. The looming thesis deadline coupled with the pressure of securing a job can be overwhelming and cause a lot of stress. Being able to discuss this with

peers has helped me to realise that these are issues which every postgraduate experiences and they can be overcome.

As well as receiving emotional support, I have also found that helping other students has had a positive impact on my studies. I am able to give advice about parts of the course I have already completed which has helped to combat imposter syndrome through making me appreciate the knowledge I have gained during my postgraduate studies.

Research examining the factors which aid postgraduate students to complete their studies advocates utilising support networks (Jairam & Kahl Jr., 2012). As peers share in the same experiences they are well-placed to provide support (Hadjioannou, Shelton, Fu & Dhanarattigannon, 2007; Jairam & Kahl Jr., 2012). Based on current research and my personal experiences, I would strongly encourage postgraduate students to seek out other students and start building your own support network.

Conclusions

Self-care strategies and a social support network (online or face-to-face) are essential for getting through postgraduate study. This article has highlighted the benefits of peer support and advocates being proactive in order to seek out social support and build your own network. In the interests of peer support, perhaps you would like to share some of your self-care strategies with us on Twitter!

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Twitter accounts
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@PhDPositivity
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Putting the PhD on pause
Laura Oxley & Danielle Hett

Taking a break from your PhD can be a daunting prospect. This article outlines considerations to think about when deciding to take a break and the administrative process of applying for a Leave of Absence.

Deciding to take a break

Anyone who decides to take on a PhD has high hopes for completing it in the expected time-frame. However, life can easily get in the way and force students to unexpectedly take time out from their research – away from their livelihood. So, what happens then? PhD students, like anyone else, are not immune to the everyday stresses that life can bring, but there is one key difference. PhD students are not employees of a university, meaning they are not entitled to the same employment benefits that other employees (e.g. lecturers) have. For instance, if you fall physically and/or mentally ill during your PhD and need to take time away you would not necessarily be entitled to paid sick leave as you would if you were an employee at the university. Likewise, if you found out you were pregnant during your PhD, you would have to plan and take maternity leave; yet you would not receive the same maternity pay as you would if you were employed, if any. These financial issues understandably place extra pressure on students who need to take time away, especially if they have a family to support.

Everything about completing a PhD looks and feels like full-time employment. The endless hours in the lab collecting data, the frantic writing of papers to get published, teaching, marking undergraduate assignments, and applying for small research funds are just some of the daily jobs of a PhD student. Yet, it appears that PhD students are caught in limbo between being recognised as a student but working like a full-time employee. Whilst this balance works well for most students, issues may only arise when students are forced to take a break from their PhD due to unexpected circumstances. In these cases, students not only face the regular worries which come with deciding to take a break (e.g. worries about falling behind), but also the additional stresses (e.g. financial, lack of supervision support) which come along with being a PhD student.

The reasons for taking a break can vary, whether it is due to health issues, both physical and mental, maternity, paternity or financial reasons, it is always advised that you speak to your supervisor first to make them aware of your situation. For instance, taking an official break from your research is a lot different to other short-term solutions which may be better suited to your needs, such as applying for deadline extensions or extenuating circumstances. Usually, if you are considering a break which is longer than a month but less than 12 months, a Leave of Absence would be recommended. This requires you to complete an official Leave of Absence form that would have to be approved by the university.

Throughout the article, you will find that one of the authors (Laura) has included personal reflections on taking a break from her PhD due to maternity leave. These sections are high-lighted with sub headings to distinguish them from the rest of the article. It is hoped that these insights will be useful to those who are considering taking a break and wondering about how other people have experienced this.

Personal reflections: Deciding to take a break

When I took a Leave of Absence from my PhD for maternity leave, I was worried that I would fall behind with my research and that it would all feel too overwhelming when I returned. My

supervisor was helpful in discussing these concerns with me and helping me to amend my PhD timeline to incorporate my Leave of Absence and associated change of submission date. Having a plan for returning to study before I started my break helped me to feel like it would be manageable to return after all.

Considerations when taking a break

Once you have made the decision that taking a break from your PhD is the right thing for you, there are a lot of things to consider. Many decisions need to be made before you even begin the administrative process of applying for a Leave of Absence (which we will cover in more detail later in this article). You may have concerns about falling behind with your research, the workload you will be faced with upon returning, and about your research potentially becoming outdated. While support structures will vary between institutions, there should be support available from your university to help you address these worries and to help you consider what you could do to mitigate any disadvantages to taking a break. Initially you should usually speak with your supervisor who, apart from you, will be the one who knows your research best and can discuss with you how you will be able to manage taking a break and then returning to successfully complete your research. Having a plan to work towards can be helpful as this will ensure that you feel you will know what you are going to be doing when you return. This will then in turn enable you to put your thoughts and concerns about your PhD to one side so that you can concentrate on the reason for your Leave of Absence.

It is important to weigh up the benefits of taking a break against the potential costs of doing so. The specific benefits will vary depending on your individual circumstances and why you are considering taking a break. In general, taking a Leave of Absence from your PhD will give you time to concentrate your energies on other things in your life. Undertaking a PhD takes a great deal of focus and commitment. It can feel overwhelming at times, particularly if other things in your life are also demanding attention. Having some time away from your research can give you space to breathe, manage practicalities, and reflect on your priorities. This will hopefully enable you to then return to your studies, refreshed and able to focus, at a later date. Whilst it may seem daunting to take a Leave of Absence, this is a more positive path than ploughing ahead with your research half-heartedly or spreading your energy too thinly across multiple areas of your life, leaving you vulnerable to exhaustion and excessive stress.

Personal reflection: Changing plans

When I found out that I was pregnant, I knew that this would mean having to take some time away from my PhD when my baby was born. What I didn't realise was how much of an impact it would have on my ability to study throughout my pregnancy. From very early on, I was unwell and had to take one month's Leave of Absence due to morning sickness. Luckily, my supervisor and department were very supportive. I found that taking the time out was helpful as now I have this time to work on my research when I am feeling well, whereas if I had tried to struggle on, I would have been unable to complete any meaningful work and would have wasted a month of my PhD registration.

Deciding how long a break to take

One of the key considerations of taking a break is how long you will need to be away for. While policies vary across institutions, most universities will allow you to extend your Leave of Absence if necessary and will also allow you to return to your studies earlier than expected. It is important to check with your own institution but in general it is reassuring that there is this flexibility regarding the length of time you need to take a break for.

There are advantages to keeping your Leave of Absence as short as possible. The longer

you are away, the less familiar you will become with your research and the longer it will take you to re-acquaint yourself with developments in the field when you do return. There is also the possibility of someone else publishing something very similar to your research before you have the chance to do so. Depending on your specific area of research, you may find that developments happen quickly and you need to substantially update your literature review and research design when you return to your studies.

On the other hand, it is important to not return from your Leave of Absence too soon. You need to be sure that you feel ready to return and are able to fully focus on your research once again. After all, having time to concentrate on other aspects of your life is the reason you are taking a break in the first place, so you need to be sure that you have given yourself a real opportunity to do this and don't feel that you have to rush back. One option is to apply to extend a Leave of Absence for an additional length of time. Initially this should be discussed with your supervisor, and there may also be other support offered by your university, depending on the reason for your extension.

Personal reflection: Extending a Leave of Absence

I initially applied for a six month Leave of Absence for maternity leave. This seemed to be a good length of time and I felt that I would probably be glad of something non-baby related to do after six months of changing nappies and feeding milk. However, when the time came, with one month to go before I was due to return to my research, I realised that I was not ready to split my attention between my baby and my research. I felt strongly that I needed more time to devote entirely to my baby and knew that if I returned to my research at this point, my heart would not be in it. I spoke to my supervisor and applied for an additional three months Leave of Absence, taking my break to a total of nine months. My department approved the extension and I used this time to start getting used to the idea of returning to my research. When the time came to return to the PhD, I felt ready and was looking forward to continuing with my study. It will depend on what suits each individual, but for me, extending my Leave of Absence was the right thing to do.

How to take a Leave of Absence

A Leave of Absence refers to an official break from your studies, where you will no longer engage in your academic work (i.e. taught study/research). A Leave of Absence request form must be approved by your university before you can take the leave. You can typically find this form online via your university webpage, or your supervisor/university support services should be able to provide you the form. As mentioned earlier, it is essential that you discuss your concerns and thoughts on taking a Leave of Absence with your supervisor first, and they will help you complete the form too. Importantly, whilst on official leave, your student registration status is put on hold, meaning that while you still have a connection with the university, you will not be recognised as having an active student registration. Consequently, depending on your university, any funding (i.e. scholarships, research grants, student loans) you receive may be stopped or you may be required to pay an amount back following your return to university. Your council tax exemption may also be invalid. These are all important things to take note of prior to your leave. Furthermore, you will find yourself limited to what university facilities you can access. For instance, during your leave there is typically no formal supervision offered and no access to the university counselling services; this is worrying as arguably you may need access these support services the most during the Leave of Absence, depending on your circumstances.

Personal reflection: Applying for a Leave of Absence

I was concerned about the amount of time it would take to apply for a Leave of Absence, imagining that there would be lots of paperwork needed and red tape to get through. However,

I actually found the administrative side of things relatively easy. I am self-funded so I didn't need to inform any funding bodies, which may add an extra job for funded PhD students. However, being self-funded meant that I did not get any paid maternity leave from my PhD and the financial side of things was certainly something to seriously consider. In terms of applying to my university, it was a case of filling in a fairly straightforward form and providing evidence of the reason for my request to take a Leave of Absence. In my case of maternity leave, this was a medical note to confirm that I was pregnant. Within a couple of weeks, I received an email confirming that my Leave of Absence had been approved by the university.

Returning to study after a break
Hopefully when you return to your research after a break, you will be feeling refreshed and ready to continue studying with the same passion as when you first began on your PhD journey. However, there probably will be some changes in how you approach your study. It may be that you have new priorities or that you have resolved to ensure a better balance between your research and other aspects of your life. You might find that friends and colleagues have moved on with their research and taken different directions from where you are heading. There are also likely to be practical changes to get to grips with, such as new university policies and procedures or even new university buildings being put up in the intervening months since you were last on campus. It is important to keep in mind that all of these difficulties can be overcome. If you need some extra support with returning to your research, there may be options available at your university or within your department. Try exploring these possibilities if you start to feel overwhelmed. A good starting point would be to talk to your supervisor regarding academic concerns or your student welfare team regarding wellbeing issues.

Personal reflection: Returning to study
I recently returned to my PhD research after having been away from university for nine months. Things had definitely changed. Having been on maternity leave, I was now responsible for a little human being and so my priorities were slightly different than they had been before. I have had to acknowledge that this means that things may take a little longer to get done and I might not be able to check my emails as frequently as I might want to, but I also feel confident that I can continue with my PhD as well as being a parent. The support that I have received from my supervisor has been incredibly helpful in maintaining this confidence. Re-acquainting myself with my research has been an interesting process. I thought that I would have forgotten a great deal after months away, but I was pleasantly surprised by how familiar it felt when I re-read my drafts and notes. I know that my university organises events for students with children and families, so I plan on finding out more about this. Hopefully this will help me to build a network of support and make connections with other students who are in a similar situation.

Conclusion
As discussed in this article, taking a break from your PhD is no easy decision. While it is important to weigh up the pros and cons of taking a break, you need to do what is best for you and your wellbeing in the long run. We hear all the time the importance of self-care and it is true, without putting your needs first, the PhD process will be a hard struggle, and it doesn't have to be that way. For many, taking a Leave of Absence gives them the freedom to deal with their difficulties, or the unforeseen issues they face, without the additional pressures of looming PhD deadlines. Ultimately, this may only serve to benefit the research project overall as people return well rested and motivated to complete their PhD.

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From uncertainty as a first-year student to uncertainty in the field:
What to expect and how to deal with it

Kathryn E. Bates, Lucy N. Cooper & Abigail Webb

As PhD students, we aim to explore new avenues of research and make an impact within our field, but this is no mean feat and can often lead to feelings of intimidation and uncertainty. In this article we consider managing uncertainty on a personal level through to uncertainty in the field and make some helpful suggestions on how to manage this.

The PhD student and the worrier: Finding tolerance to uncertainty

As with any long-term project, uncertainty during the PhD is to be expected. Considering the originality of your contribution to knowledge, there will be few (if any) blueprints for you to work from. For much of the time, the challenge of finding something new is exciting and is what probably drove a lot of us to carry out our studies in the first place. However, managing the unknown can also be imbued with difficulties. For many researchers, the uncertainty of a project can be especially hard to manage, and if we are susceptible to an intolerance of uncertainty (IU; Dugas et al., 2005), it could manifest into excessive worry, anxiety and/or mental ill health.

Uncertainty in life is unavoidable, and often uncomfortable to endure, but having an intolerance to it can be pivotal in the development of anxiety. The central feature of generalised anxiety disorder (GAD) is excessive worry (Newman et al., 2013). Worry is defined as a relatively uncontrollable chain of thoughts about uncertain events, with the potential for future negative outcome (Borkovec et al., 1983). Amongst the various conceptual models for anxiety and worry (Fisher & Wells, 2011), Dugas et al.'s (2005) IU model proposes that through a maladaptive cognitive bias towards uncertainty, one's intolerance leads to anxiety. They state if one finds it difficult to accept the uncertainty of events, this can account for a clinical presentation of anxiety. Furthermore, the belief that worry is beneficial and will help us gain a sense of certainty can become re-enforced, leading to excessive worry and reinforcing anxiety.

Given the nature of a PhD, we are faced with constant uncertainty, and if we find this difficult to tolerate (or have cognitive biases towards uncertainty and worry), this could exacerbate our mental health. Students I have supported through counselling or mental health mentoring have often cited excessive worry, perfectionism or anxiety as a barrier to their learning. The rumination, procrastination and/or delay in submitting until it is absolutely perfect is often linked with a fear of uncertainty; 'What if it isn't good enough? What if I fail?' Often, those who are intolerant will engage in avoidance behaviour, such as procrastination, avoiding new situations, keeping to predictable routines, or getting second/third/fourth opinions to manage uncertainty.

How to find tolerance…

Does this all sound very worrying? Well, keep reading as the following section may be of help to you. As previously mentioned, it is impossible to rid ourselves of uncertainty in research. However, you can learn to become more tolerant of uncertainty and manage the

anxiety it provokes. Cognitive Behavioural Therapy (CBT) has been shown to be beneficial in managing anxiety (NICE, 2011) and IU (Ladouceur et al., 2000); something accessible through Improving Access to Psychological Therapies (IAPT) or even online (see Resources).

For example, one exercise would be to investigate the maladaptive belief that worrying will help us gain certainty. Firstly, we must catch ourselves 'in the act' when we are continuously over-thinking; for example, when deciding whether to carry out a particular statistical test or choosing the colour of our conference poster. The hard part is identifying it; but thought diaries can be helpful here. A thought diary can be used to monitor your feelings and thoughts and taking note of these at regular intervals. Once you become more aware of the thinking pattern, you can then challenge the thoughts; 'What is the worst that can happen? Am I really going to please everyone?' This can sometimes be tricky, so another tip is to imagine someone else in your shoes; what would you advise them?

Another example is to learn how to *feel* more tolerant of uncertainty and realising your thoughts are just thoughts that do not necessitate reaction. Identify the uncomfortable feelings for what they are – normal but unhelpful – and accept them, as opposed to fighting against or avoiding them. This can be done through graded exposure; sitting with uncomfortable feelings about a mild event first and maybe observing the (lack of) consequences, then gradually increasing to more anxiety provoking events. Many mindfulness practices can help with this (see Resources for more information). The key is to truly experience and accept the discomfort of uncertainty, rather than avoid it; then through practice, begin to recognise how unhelpful worry can be and decrease your anxiety.

There is no quick fix to managing anxiety or an IU. However, making small, helpful changes can make a real difference in your experience carrying out your PhD, and hopefully other areas of your life as well. Whilst we cannot avoid the uncertainty of how our PhD journey will unfold, we are able to build certainty in our strengths, such as our resourcefulness and ability to problem-solve.

The PhD student and the creative: finding certainty in our abilities

Exploration, problem-solving and discovery are what entice us to pursue a career in scientific research. Yet, as PhD students, we do not always imagine our work to be at the forefront of discovery. In the first year of a PhD, we go to conferences and seminars hosted by the leading researchers in our field. We spend the first few months absorbing the literature that built our current understanding of the field. Incidentally, it is easy to feel intimidated, uncertain and under-qualified. While it is important to learn to manage this uncertainty and worry as discussed above, we must also draw our focus to our strengths. We tend to forget that the purpose of a PhD is to discover, and that this requires having the confidence to explore ideas. How do we transition from critically evaluating two sides of the argument, to building an argument of our own? When developing our hypotheses and paradigms, we must learn to embrace creativity in the scientific process. This section will first explore the relationship between creativity and science and will then consider how we can find strength in this knowledge to build confidence and alleviate uncertainty.

While theories such as investment theory of creativity suggest that it is important to think globally and invest time in thinking about ideas (e.g. Sternberg & Lubart, 1996; Sternberg 2006), others have moved towards considering a more integrated model of creativity. Csikszentmihalyi and Wolfe (2014) explain that the standalone ability to generate new ideas does not encompass creativity. Rather, creativity is comprised of originality, value and implementation. While a new idea or product is generated in the creative process, this must also be valuable; and before its success can be evaluated, the idea must be implemented or executed.

This model is mirrored in the scientific process. Science is not only about coming up with a

brand new idea no-one else thought to test; instead, it embodies the notion of generating valuable ideas that can be successfully executed. Specifically, we draw new connections between existing models to generate alternate hypotheses. Only then can we design methods to test new predictions. We must, in turn, be able to deal with the unexpected; continuously modifying methods and interpretations to account for surprising outcomes.

Given the complex requirements of creative thinking in the scientific process, as PhD students, how do we foster creativity? Accumulated research has indicated that moderators of creativity are not only rooted within our own thoughts and behaviours, but also within our environment (e.g. Dunbar, Sternberg & Davidson, 1995; DeHaan, 2011). For example, research has found that individuals with a more positive mood were able to solve significantly more problems and with more insight (Subramaniam et al., 2009). However, it is also evident that creativity relies on interaction with, and discussion amongst, knowledgeable individuals (Dunbar, Sternberg & Davidson, 1995). The ability to communicate your ideas to colleagues, face criticism and integrate feedback into your work is part of the challenge of generating strong hypotheses. Evidently, confidence and certainty can be easily damaged in the process. Highly creative individuals have been described as demonstrating willingness to take risks, in addition to high discipline and self-motivation (e.g. Mockros & Csikszentmihalyi, 2014); much like the qualities necessary to undertake independent research. Thus, it is becoming increasingly clear that the temperament of a creative individual reflects the makeup of a PhD student.

How to move forward…

Just as it is not useful to instruct a person to 'be creative', it is also not useful to instruct a person to 'be confident'. Self-confidence is a complicated emotion and one that must be tackled wilfully and patiently. As outlined in the first section of this article, we can adopt CBT approaches to deconstruct negative thoughts and emotions and develop strategies to deal with uncertainty. Another strategy that has emerged from research into post-traumatic stress disorder treatment (e.g. Korn & Leeds, 2002), but may be useful in confidence building more generally, is resource development. A resource is a positive memory you can readily refer to, such as support from someone you trust or a character strength, which can help manage overwhelming feelings of self-doubt and uncertainty.

As PhD students, it is important to acknowledge our strengths. There is a reason why you got the position or won the studentship, and it is vital to recognise your ability and the hardwork it has taken to get here. More importantly, we must also recognise that independent research is challenging and putting time into developing resources is worthwhile. This section has highlighted the parallels between creativity within the scientific process and the qualities of a PhD student in the hope that you can use this article to develop a resource. Take 5 minutes to make a list of what you are working on right now. Next to this, make a list of equal length of your strengths as a researcher, including the creative abilities highlighted here. You can then start to draw lines between your strengths and the tasks you are completing. This is the basis of your resource. Continue to update the list of as you move forward with your research; for every task you jot down, also add a strength no matter how big or small. Keep a copy on your desk or in your bag, and when you're next feeling uncertain or are lacking confidence, refer to this resource and remember your strengths as a PhD student.

The PhD student and the researcher: Finding certainty regarding our purpose in research

The spectrum of uncertainty is vast; the first two sections discuss uncertainties we encounter at the local level, regarding our personal experiences with self-doubt and ingenuity. The nature of these uncertainties is that they are extensive and raise questions about our abilities

that extend to our place as postgraduates within our fields. How am I to make sure that my own contributions to research are good and valuable, and to trust that together as researchers we are building the truths that define our fields? Questions such as these imply the existence of some absolute truth, or point of perfection, that should be the ultimate end goal of any researcher. But as Bertrand Russell (2009) argues, science does not deal in certainties, nor does it assume immutable truths about the world. It requires us, as researchers, to build approximations and possible accounts to the very best of our ability (Russell, 2009).

These uncertainties, when combined with issues inherent to academia, such as the pressure to publish, and the related 'file drawer effect' (Nagarajan et al., 2017), can sometimes cloud our impression of our own capabilities and purpose within research, but also the belief we place in our research area to establish the fundamental building blocks of our field (Simmons et al., 2011). Such global issues cannot be fixed at the individual level. But an awareness of their importance, and allowing ourselves to embrace uncertainty, trusting ourselves to produce and disseminate research that is just and rigorous in its design, is precisely what makes our role as postgraduates worthwhile. Whether or not we will ever produce a piece of ground-breaking work, our findings need only contribute, in some way or another, to our area of study. The only need for certainty is in the knowledge that our own research is built on careful design and disseminated appropriately.

How to manage uncertainty in the field…

The same concept of approximation can be applied to our ability at the personal level. There is no possible way in which a single individual can produce ground-breaking research and at the same time, accumulate a knowledge of their field that leaves them feeling fulfilled and satisfied with their level of expertise. When together every unread article and book, learned technique and mastered skill feel like multitudes of drops in a limitless ocean, it may help to ask ourselves: 'What is any ocean but a multitude of drops?' (Mitchell, 2008, p.508). A dedication to know more than the day before, self-kindness and striving for what is good rather than what is perfect, can make the uncertainties inherent to postgraduate study a little less daunting and a little more enjoyable. Every achievement and contribution we make, regardless of however big or small we consider it to be, is worth one accomplishment more than it would have been had we not have tried.

In conclusion, the ideal that we might one day become the confident and well-cited researcher, who is fluent in the theoretical and computer programming languages of our fields, who has mastered every skill and an understanding of every technique, is not a realistic or healthy aspiration. It is not obtainable, and that is okay! Uncertainty and doubt allow us to be open to change, and in doing so are necessary for the growth of both ourselves *and* our research. They do not, therefore, have to be daunting prospects, but can be utilised in a way that encourages us to aim, both at the personal level and in our contributions to our field, for what is great rather than what is perfect. We do not need to be perfect, only approximate.

Final thoughts

Uncertainty as a PhD student can feel all-encompassing and unavoidable. However, what we hope to have highlighted in this article is that such feelings can be managed and there are simple ways to foster confidence. A key message here is that experiencing uncertainty is extremely common and there are tried and tested methods to help alleviate these feelings. Secondly, realigning your focus to recognise your strengths is an important step towards developing resources and alleviating uncertainty. Finally, the nature of discovery in science is uncertain; we can only work together to develop robust hypotheses and methodologies and be confident in our contribution to the field, no matter how big or small that might be.

Resources
Beat the Blues – http://www.beatingtheblues.co.uk
Fear Fighter CBT Programme – http://fearfighter.cbtprogram.com
Mind Information Service – Mindfulness: https://www.mind.org.uk/information-support/drugs-and-treatments/mindfulness/
NHS Digital Tools: https://apps.beta.nhs.uk/?category=Mental%20Health
NHS Improving Access to Psychological Therapies Service Locator: https://www.nhs.uk/Service-Search/Psychological-therapies-(IAPT)/LocationSearch/10008

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A Guide for Psychology Postgraduates: Surviving Postgraduate Study (second edition)

Undertaking psychology postgraduate studies can be rewarding, yet challenging. This publication supplements the first edition and aims to provide postgraduates with support and advice throughout their studies. This guide contains advice on the beginning, middle and end of the postgraduate journey as well as personal and professional development. This guide is written by the Psychology Postgraduate Affairs Group (PsyPAG), psychology postgraduates and alumni. PsyPAG exists to support the success of UK psychology postgraduates.

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