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The Role of Research in Health and Clinical Psychology

This book is a guide to assist trainee psychologists to demonstrate their competence in research as part of their training to become health psychologists or clinical psychologists. It is designed to apply equally to trainee psychologists following a university-based course and trainees following the independent route to training with the British Psychological Society. Although there are slightly different considerations depending on whether you are a trainee clinical psychologist or a trainee health psychologist undertaking a university-based course, or a trainee health psychologist taking the independent route, there is a considerable amount of similarity in the research experience of all these trainees.

This chapter discusses the reasons for the inclusion of research as an essential part of training for a health or clinical psychologist, some philosophical issues about research and some thoughts about the relationships that a trainee psychologist needs to establish and maintain during the course of a research project.

This chapter differs from the other chapters of the book. The remainder of the book provides some practical advice and guidance that will hopefully be useful when planning and conducting a research project. This chapter is mostly an attempt to encourage you to spend a little time reflecting on why you are being asked to engage in a research project, how this contributes to your personal and professional development, and why it is beneficial for the profession. In the other chapters of this book I attempt to answer questions that I have been asked by trainee
health and clinical psychologists; in this chapter, I attempt to answer questions that I think *ought* to be asked by trainee health and clinical psychologists.

### 1.1 Psychologist versus researcher

When a student enrols for an undergraduate psychology programme, their expectations about the content of the programme are often not the same as the reality that awaits them. In short, many undergraduate psychology students expect that studying psychology means that they will be involved in ‘treating’ people with mental health problems. It can be disappointing when they find that this is not the case, even more disappointing when they realise that completing the undergraduate programme does not qualify them as a psychologist and potentially devastating when they find out that research methods and statistics constitute a compulsory part of the curriculum! (I think this situation is improving as ‘school careers teachers’ become more aware of the content of psychology programmes and a significant proportion of undergraduate psychology students have studied psychology at GCSE or A-level.)

Unfortunately, many undergraduate psychology students view the research components of their programme as a ‘necessary evil’ – something which they need to do to complete their qualification but something which they do not enjoy and do not want to remember for longer than necessary.

For a trainee psychologist enrolling on a postgraduate programme leading to qualification as a health or clinical psychologist, the research element of the curriculum comes as no surprise, but it still seems to sit uncomfortably with many trainees, perhaps as a consequence of the impressions formed as an undergraduate. I think the primary reason for this is that some trainees struggle to see the relevance of research in their training and others view the research element of their training as secondary to the other parts of their training, which constitute ‘real psychology’. Undertaking postgraduate training in psychology means you will have little spare time and you will be required to prioritise goals and sometimes take a pragmatic approach. It is easy to see how the research can be sidelined, particularly when it spans a lengthy period, meaning the goals are not immediate and you have more urgent tasks, such as a client you are seeing tomorrow and for whom you really need to do some preparatory reading/thinking about your approach.
1.1.1 Why do psychologists need to conduct research?

I think this is a question which most trainee psychologists ask themselves at some point during their training, and if you are not in this category, then you ought to be. Unfortunately, this is not a question that many trainees will dwell on. I strongly encourage reflection on this question, preferably before enrolling on a postgraduate training programme. You are likely to reflect on the other aspects of your training – how they fit together and how they contribute to your knowledge and skills as a psychologist – so why should research be different? It is an integral part of your training and should be treated as such.

To contribute to your reflections about this question, here are some of my thoughts. I think research training is an important element of your training programme on the road to a clinical or health psychology qualification because it encourages the development of skills that are transferable across research and clinical settings; it helps you to interpret research findings, thereby ensuring your practice is evidence informed; it enables you to contribute to the psychological knowledge base; and it informs assessments of the quality of any psychological services you provide. These are important skills for any independent practitioner who intends to function at the level expected of a clinical or health psychologist, and they require a little more discussion.

1.1.1.1 Research training develops transferable skills

Some of the knowledge and skills that you accrue during your research training are specific to conducting a research project, but many are transferable across other aspects of your work as a psychologist, and, therefore, the research training should be considered a valuable professional development opportunity. For example, trainee health psychologists must meet the requirements of the generic professional unit of competence. This includes demonstrating an ability to, for example, practise within legal and ethical boundaries, communicate effectively, build alliances and engage in collaborative working, provide appropriate advice and guidance on concepts and evidence derived from health psychology, and lead groups or teams effectively. A list of nine transferable skills is highlighted by the accreditation criteria for clinical psychology training programmes. This is similar to the list referred to in the health psychology generic professional unit of competence and includes, for example, generalising and synthesising prior knowledge and experience in order to apply them critically and creatively in different settings and novel situations, and exercising personal responsibility and largely autonomous
initiative in complex and unpredictable situations in professional practice. All these abilities are required for the successful completion of a research project and, therefore, your research training will contribute to your generic professional development in similar ways to other aspects of your training.

Furthermore, I encourage you to consider the similarities between the research process and the process of psychological intervention. Psychological intervention broadly consists of four elements: assessment, formulation, intervention and evaluation. The assessment and formulation process in a therapeutic setting is mirrored by the assessment of previous research, identification of gaps in the literature and formulation of research questions in a research setting. Similar skills are used in both settings – the ability to seek out relevant information, synthesise this information, formulate hypotheses on the basis of this information and then critically evaluate these hypotheses to ensure they are appropriate. Choosing and implementing an intervention in a therapeutic setting which is appropriate to the needs of the client and draws on your formulation is mirrored by the process of choosing an appropriate research design and method which is appropriate for the population being studied and derives from the formulation of the research questions/hypotheses. Finally, evaluating your therapeutic intervention mirrors the process in which your research findings are evaluated in light of previous research and new research questions are generated and/or the original hypotheses are reformulated. I am not suggesting that the research process and the therapeutic process are the same, only that some similar skills are drawn upon.

1.1.1.2 Research training helps you evaluate research findings

In any service you deliver, it is important to ensure that you are providing clients with the most effective service that is reasonably practicable. The standards of our profession demand this and the requirements for continuous professional development aim to encourage this. But how do you know that your service is as effective as it can be? The starting point is to make sure that you employ the techniques and procedures which have been shown to be effective by research evidence. This is not to suggest that you need to conduct this research, rather that you need to be aware of the latest research that might inform your practice. The push for evidence-based practice is strong in the medical field, leading to a plethora of guidelines about how patients should be treated. These guidelines are meant to be evidence based in that they provide an indication of best practice derived from good quality research evidence. The production of these guidelines has also led to a plethora of clinical audits which aim to
determine whether health professionals are adhering to the latest guidelines. Although there are debates about the appropriateness of clinical guidelines in some circumstances and the research designs that generate this evidence, the principle that patients/clients should be provided with the most effective care is a sound one.

In psychology, restricting ourselves to clinical practice which has a strong evidence base is, in my opinion, a step too far as it ignores the valuable role of the psychologist’s experience, the inter-client variation which often renders a single standard procedure inappropriate and the fact that the effectiveness of some psychological interventions can be difficult to demonstrate in the context of a controlled research environment. Furthermore, the constraint of evidence-based practice can stymie innovation. However, I advocate the notion that our practice should at least be evidence informed. That is, any psychological service that we provide should be informed by the most recent research findings. Therefore, psychologists need to keep abreast of the latest developments in the research literature and need to consider how these developments might influence their service provision. The research training that you undertake will help you to develop the knowledge and skills that will enable you to understand and critically evaluate the latest research information and to decide whether this information should affect your practice.

1.1.1.3 Research training enables you to make a contribution to psychological knowledge

This is probably the most obvious outcome from engaging in research training – successfully completing a research project is the best way of developing your skills and knowledge to conduct research in the future.

It is important that psychological research continues to inform psychological practice. Our profession will remain static and become discredited in its absence. Good research has the potential to influence psychological practice only if applied psychologists are involved in the research process. The involvement of applied psychologists in the research process ensures, at least, that the practice implications of research findings are highlighted and that research questions relevant and timely for psychological practice are generated. Your research training will provide you with the knowledge and skills not only to contribute to this process, but to lead it.

1.1.1.4 Research training informs service evaluation

Service evaluation is important to ensure that the service you provide is having the desired impact on clients. The information generated through
service evaluation is the minimum evidence that should be provided by a psychologist to suggest that their service is effective (see Chapter 8). The knowledge and skills that you develop through learning about research can be directly employed in this setting.

You will have encountered psychologists who do not appear to actively engage in research yet are respected in the profession. However, because a psychologist is not seen to be producing research papers does not mean that they are not using the research knowledge and skills derived from their training. Of course, the active production of research-based knowledge among psychologists is to be encouraged – who else is in a better position to generate data that will inform psychologists’ practice? The production of research-based knowledge is not compulsory for psychologists, but, because of the requirements of continuous professional development and service quality assurance, the application of research knowledge and skills in their work is compulsory. The foundation for this knowledge and skills is laid during your training programme.

1.2 Thinking about research

It is important not only to consider why psychologists do research but also to consider why anyone does research. That is, what is the purpose of research? A consideration of this nature will lead us into the world of philosophy and epistemology.

1.2.1 Why is it important to consider epistemology?

It is useful for psychologists to visit the world of philosophy from time to time. In particular, a consideration of epistemology draws together the areas of research and philosophy and bridges the gap between the scientific practitioner and the reflective practitioner.

Epistemology is an examination of how we know that we know something, or, how knowledge is obtained. It is usually allied with ontology, which is an exploration of the nature of social reality. For example, you might take the ontological stance that reality is constructed in the interaction between people and does not exist outside this interaction. Consequently, you are also likely to take the epistemological stance that in order to understand a phenomenon, we must examine social interactions and the ways and means by which reality is constructed in interactions. This perspective will, in turn, obviously influence your choice of research design.
Epistemological approaches, broadly speaking, range from those which adopt a realist approach to those which adopt a relativist approach. The realist approach suggests that truth is an independent reality and that by careful experimentation we can discover this truth. This approach gives rise to the classical hypothesis-testing approach that undergraduate psychology students will be familiar with. The relativist approach holds that reality is somehow relative to something else. For example, a relativist approach might propose that a person’s perception of an experience is relative to their cultural and family context, one person’s perception might be different from another’s, all perceptions are equally valid and worthy of understanding and, therefore, there is no one truth independent of these interactions. Relativists are likely to view experimental designs as an inappropriate approach for discovering information about these perceptions.

Within these broad epistemological approaches, there are a range of approaches where the differences are more subtle. Commonly discussed approaches in psychology are the positivist, post-positivist and social constructivist approaches. Positivists hold that the goal of science is to observe and measure phenomena. By doing this we can develop an understanding of the world. This assumes that phenomena operate in a deterministic fashion, and if we can theorise about these phenomena then we can develop and test hypotheses and refine our theories, in a process which will ultimately lead us to a true understanding of relationships between phenomena. When we think of scientists working in a laboratory on some physics/chemistry experiment, we are probably thinking of a positivist approach to research.

The post-positivist tradition (or more specifically, the critical realist tradition) is critical of the possibility that our observations and measurement will ultimately lead us to the truth. The critical realist believes that observations and measurement are prone to error and, therefore, truth may not be known with absolute certainty. The critical realist will also recognise the bias that researchers bring to their interpretations of information. In effect, critical realists believe that the truth is out there; it’s just difficult and sometimes impossible to access.

Social constructivism posits that there is no single reality that can be studied, but that ‘reality’ is what an individual constructs through their interaction with the world. Social constructivism assumes that the researcher cannot be separated from the participant. In other words, the researcher does not gather data from a participant which represent that participant’s experiences. Rather, the researcher plays a role in constructing the data as the data are a product of the interaction between the researcher and participant. The researcher is part of the life-world
experienced by the research participant. This approach is discussed further in Chapter 7.

Although your epistemological stance does not equate to your choice of methodology (in the sense that different methodologies can be used by someone with a fixed epistemology), there are methodologies which flow from epistemological approaches logically and others which do not. Adopting a research design which does not fit logically with your epistemological approach might be one of the reasons you have found a research project in the past to be difficult to become enthused about. The dissonance might not have been obvious to you and you might have been left with a general dislike for research. Giving some consideration to your epistemological approach and to the type of research that sits comfortably with you is essential before choosing a research design. Even if the conclusion is that you have no strong epistemological pull in any direction and you are happy to take a pragmatic approach to research, the resolution of this in your own mind is a worthwhile exercise. A useful discussion of the relationship between epistemology and research methods is provided in chapter 1 of Mertens (2010).

Furthermore, without an understanding of epistemology, you will never be able to develop novel and innovative methods of conducting research. Instead, you will see research design as a list of options to be chosen from rather than as a set of examples of a potentially infinite number of research designs. Understanding the epistemology that underlies a research design is an attempt to understand the purpose of the research. Unfortunately, my experience of postgraduate psychology students is that their appreciation of epistemology is not good, and I imagine that this stems from the structure of research methods teaching in undergraduate psychology programmes. In my experience, research methods teaching in undergraduate psychology programmes in the UK is biased towards experimental designs and analysis of variance (ANOVA). There is no comparable coverage of other approaches and little discussion of the epistemological approach from which experimental designs tend to emanate.

1.2.2 What is the aim of research?

I have sometimes encountered trainees who are enthusiastic about their research project but become deflated or disappointed when they reach the analysis stage. I have also encountered trainees who become frustrated (more than I have come to expect) when their research project does not proceed as planned. Often this is because the trainee’s expectations for the research are too high. In other words, the trainee has a slight
misperception about the aim of research. Therefore, before embarking on a research project, I think it is worthwhile to contemplate the aim of research in general and the aim of your project in particular.

It is worth stating at the outset that we all encounter problems in our research, that we all have good ideas thwarted by circumstance and that we all experience frustration and disappointment on occasions as a result of research not proceeding as planned or as envisaged. The important thing is your response to these situations and your response will, probably, be largely based on your expectations.

Research is an investigation of some phenomenon which helps us to understand it better. When we understand something better than we did before, we are able to formulate more searching questions. Therefore, research will attempt to answer some questions but, by doing so, will raise additional questions. You should expect your research project to address specific questions satisfactorily but you should not expect the answers that you uncover to mark an end to the question. The aim of a research project is to provide the next chapter in an ongoing story. Your project will summarise the extent of our knowledge in an area to date, state the next logical question that needs to be addressed to further this knowledge, answer this question, and then indicate how your findings point us in the direction of further questions that need to be tackled. Your project might be a small part of the story, but it is an essential part.

Furthermore, the process of research is an uncertain one. You can plan carefully and diligently and, by doing so, you can avoid many problems that would otherwise prove fatal for your research project, but no amount of planning will prevent you encountering some unforeseen problem along the way. Being able to manage this uncertainty in the midst of the complexity of your research design and being able to develop novel solutions for problems encountered are two of the most important skills that a psychologist develops through their research training.

In summary, then, I think the aim of research is learning. Research outcomes help us to learn more about an area and to formulate questions to develop this learning; the research process helps us to learn about ourselves, how we respond to uncertain and complex situations and how we work as part of a research team.

1.3 Research collaboration

Most research is conducted by research teams, although in many cases the team might comprise only two people (you and a supervisor). The success or otherwise of research teams tends to be judged by their research
outputs. However, good quality research outputs are unlikely to be produced by a dysfunctional team – the success of a research team depends as much on the management of inter-personal processes as it does on research-specific skills. Learning how to communicate effectively, develop your leadership role within a team and be a productive and collaborative team member are essential skills that you will develop throughout your training towards qualification as a psychologist. The research element of your training will contribute greatly to this development.

1.3.1 How do I choose a research supervisor?

The method of choosing, or being allocated, a research supervisor will depend on the specific procedures in place in your training programme. Many training programmes will allow the trainees to have some element of choice, but the choice of supervisor might very well be tied to the choice of research area. In many institutions, staff are assessed on the basis of their research output and are encouraged to be focused in their choice of research topics. Therefore, you might find that staff are prepared to agree to be your supervisor only if you are conducting research in areas which they have specified. In some training programmes, you will be permitted to identify your own research area, but there will then be an onus on you to identify, and secure the agreement of, a willing supervisor. Whatever the specific circumstance, it is likely that the choice of supervisor will in some way be coupled to your choice of research topic. Therefore, you need to find a topic in which you are interested and which will sustain your enthusiasm throughout the duration of the project (see Section 3.1).

As mentioned, in most training programmes you will have some degree of choice about who supervises you for your research project, but the reality is that this choice will probably be quite limited, and if you wish to conduct research in a specific area, you might find yourself with no choice at all. This is usually not problematic. If you are working with an experienced supervisor, you will find that they can adapt to the styles of different trainees and will be able to guide you through the process successfully.

1.3.2 What is my role in the research team?

Your role in the research team will largely be decided by the origins of your research project and by the point at which you joined the team. Some trainees will generate a research idea and be the drivers in the establishment of a research team; some trainees will join an existing team with a reasonably well developed research project; and many will
join a research team which is somewhere between these two stages of development (often where a research idea has been suggested by someone but a team has not yet met in any formal sense to further this idea).

At first glance it might appear that joining a research team with a well developed project is beneficial and would lead to an easier transition through the research process. Yet there are some pros and cons that need to be considered.

- The research idea will have been developed by a research team who will probably have ensured that the research idea is feasible. However, this will prevent you from giving any input to the development of the research, and, by agreeing to join the research team, you will be obliged to follow the course already decided. Sometimes it will be obvious in a viva exam or project write-up that a trainee has joined an existing research project and has not really understood the development and conceptualisation of the project.
- The research team might be working to a different timetable than you would prefer. That is, you might be asked to undertake aspects of the research process at a time when you have other commitments on your training programme. It is likely that you will have little control over deadlines.
- The research team is likely to include all the relevant people necessary to ensure the success of the research project. This will be beneficial in that the people with whom you need to negotiate important elements of the project, such as access to participants, might already have indicated some willingness to be involved in the research.
- The research team will probably be able to assist with the analysis of the data, but they are also likely to have specific ideas about how the data should be analysed. This might require you to develop skills in data analysis that are beyond those required for your training programme.
- Some existing research teams will be sympathetic to your needs as a trainee and ensure that learning opportunities are provided for you during the course of the project. However, existing projects will probably have a tight time frame for completion (imposed by an outside agency), and therefore the focus of the research team might be the completion of the project and how you can speed this along. The danger here is that you become a research assistant rather than a trainee, devoting a considerable amount of time to the research but not availing of any potential development opportunities.
- If you join a research team that has already developed its idea to the point where data collection is almost ready to begin, then you have
a limited opportunity to contribute conceptually to the research project and, therefore, you are unlikely to be a senior author on any publication resulting from the project.

Whatever your role in the research team, it will be important for you to demonstrate that you are a competent researcher who can engage successfully in all aspects of the research process. If you have not actually been engaged in all aspects of the research process, this will be difficult to demonstrate, and you should consider the opportunities for this before joining a research team. For example, if you have not been involved in the original conceptualisation of the research project, then you might need to think of alternative methods of demonstrating your ability in this aspect of research. Re-conceptualising the project and being able to discuss alternative approaches to the research might be one method of doing this. Furthermore, it is your responsibility to ensure that the research report for your training programme is delivered on time and that it meets the requirements specified by your training programme. This responsibility cannot be delegated to other members of the research team.

1.3.3 What sort of help should I expect from a research supervisor?

A research supervisor’s role is to assist and guide you in the development of your research knowledge and skills. The research supervisor’s role is not to ensure that you successfully complete a research project – that is your responsibility. The research report that you submit is, therefore, a reflection of the research knowledge and skills that you have gained, not a reflection of your supervisor’s knowledge and skills. If your collaboration with your research supervisor is underpinned with this understanding, then your expectations of the contribution from your supervisor are likely to be more realistic.

Research supervisors will be able to provide some guidance about how you can develop your research-specific knowledge and skills by pointing you towards useful sources of information and they will help you to reflect on the development of these skills. Research supervisors will also provide you with feedback on written work such as your research proposal and a draft of the research report (if you allow them sufficient time to do so). Two heads are better than one, and many heads are better still. Therefore, obtaining feedback from as many supervisors/collaborators as you can is beneficial. However, supervisors, assessors and other reviewers of research outputs will rarely agree on every aspect of the work that they review. In psychological research, it is appropriate for reviewers to
have different opinions on how a research project should be conducted. Sometimes these disagreements will be minor; sometimes they will be more fundamental, but often they are not absolutely opposed. That is, reviewers might have different opinions about how a research project should be conducted, but they might also be prepared to accept each other’s suggestions as valid. This occurs because there is no single correct approach to conducting a research project; there might be many equally valid ways of addressing the same issue. Consequently, it is inappropriate to expect the feedback you receive from different supervisors to match exactly. It is your responsibility to digest this feedback and to attempt to synthesise it. Remember, your supervisors are providing you with feedback which is an indication of their thoughts about your work and how it might be improved; they are not providing you with a list of revisions that you must make in order to make your work perfect. Complying with the feedback provided by your supervisors is no guarantee that the assessment outcome will be favourable – your supervisors are trying to improve your work, but the quality of the final product will depend on the quality of the initial product submitted to your supervisors for feedback. You should also remember that your supervisors are not infallible, and sometimes you might want to discuss the feedback they provide, especially if it does not make sense to you.

The help you receive from your supervisor will be specific to your supervisor. You should not expect all supervisors to have the same supervisory style – there are many valid approaches to research supervision. Standardisation is the refuge of the unimaginative and the characteristic of automatons. Psychologists should rejoice in individual differences.

The nature of the supervisor–supervisee relationship and the role of the supervisor will be governed, to some extent, by guidelines and regulations specific to the institution in which your training programme is located. You should make yourself aware of these.

### 1.3.4 What should I do when things go wrong?

Inevitably, problems will occur at some stage during the research process, and this is when the experience and advice of your supervisor will be most valuable. You need to bring any problems to the attention of your supervisor as early as possible. In general, the earlier a problem is identified, the greater the likelihood that it can be dealt with successfully.

This might seem like straightforward advice, but it is sometimes not followed in practice. Sometimes trainees will encounter problems with their research at a time when they are feeling overwhelmed with other aspects of their workload. In these situations it is very tempting to ignore
the non-immediate problem (which is usually the research-related problem) and deal with the other pressing deadlines. I think this is because these trainees feel that they cannot control research-related problems and so it is easier to focus on work they can control. When you experience feelings such as a lack of control over the research process, that should set off the alarm that tells you to speak to your supervisor. The appropriate response to encountering a difficult problem is to deal with the challenge and develop a strategy for negotiating a way around this; avoiding the problem is likely to compound it.

Unfortunately, on the rare occasion, things can go wrong so drastically that a complete rethink of the research project is required. My aim, and the aim of your supervisor, is to ensure that this does not happen. The chances of this happening will decrease considerably by careful consideration and planning at each step in the process. I hope that the remainder of this book will assist you in these considerations.

1.4 Summary

In this chapter, I have discussed the role of research in the training of health or clinical psychologists, the purpose of research and the formation and management of research collaborations.

I have argued that research training is an important element in the knowledge and skills development of trainee psychologists because it encourages the development of skills that are transferable across research and clinical settings; it helps you to interpret research findings, thereby ensuring your practice is evidence informed; it enables you to contribute to the psychological knowledge base; and it informs assessments of the quality of any psychological services you provide.

I have also suggested that considering your epistemological approach and reflecting on what it is realistic to achieve within the constraints of your research project are useful exercises to engage in prior to and during the research process. Such reflections are likely to result in more appropriate research designs and more appropriate expectations about the research report.

Finally, I have outlined the types of expectations that you should and should not have about your research supervisor and the expectations about your role in this research collaboration.
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