

“It’s not in my Job Description”: An exploration of trainee clinical psychologists’ attitudes towards research and perceptions of DClinPsy research culture

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ABSTRACT

This project aimed to investigate attitudes towards research and perceived research culture among trainee clinical psychologists across the UK. This was achieved by exploring factors such as: research training environment, research attitudes, research self-efficacy, and professional identity. An online survey was completed by 44 trainee clinical psychologists who starting training in 2020. The findings showed that UK trainee clinical psychologists did not perceive a strong research training environment, they did not hold strong attitudes towards research, or have positive research self-efficacy as indicated in previous research. It is of some concern that the role of researcher, as part of the identity of a clinical psychologist, was not seen to be instrumental by most trainees. Important differences in the results of this research compared to previous published literature are discussed, in addition to a consideration of the implications of these findings for training and the post-qualification role of clinical psychologists.

Key Words:

Clinical psychology doctoral training

Research culture

Research activity

INTRODUCTION

Clinical psychologists have the skills and knowledge to deliver psychological therapies as well as doctoral-level research training in the design of both quantitative and qualitative research (Stricker, 2002). Within the 'scientist-practitioner model', the application and delivery of research is seen as a necessary component within the profession (Shapiro, 2002). Being a researcher is a distinctive part of a clinical psychologist's professional identity but there are often barriers to its expression (Smith & Thew, 2017) and, with low-levels of research output post-qualification, these barriers require attention (Mitchell & Gill, 2014).

Holtum and Goble (2006) devised a model of factors influencing clinical psychologist research activity (Figure 1)¹, proposing that research activity is influenced by a broad range of factors. For this project, research training environment (RTE), attitudes, control beliefs, and professional identity were chosen as a focus. The RTE was chosen due to its predictive power when exploring research output amongst clinical psychologists (Mallinckrodt & Gelso, 2002), and attitudes, control beliefs, and professional identity were chosen due to their links with the RTE.

The RTE is where people learn about and conduct research, with studies showing strong relationships between RTE and research output (e.g., Kahn, 2001; Mallinckrodt & Gelso, 2002), including the likelihood of doctoral theses being published (Cooper & Turpin, 2007). The RTE also significantly impacts research attitudes and research self-efficacy (Lee, 2009). Szymanski et al. (2007) found support for relationships between the RTE, research self-efficacy and attitudes in a sample of clinical psychologists, with these variables significantly related to scholarly productivity. Wright and Holtum (2012) also found a strong correlation between research self-efficacy and intention to do research among UK trainee clinical psychologists.

¹ Mallinckrodt and Gelso (2002) suggested that vocational preferences (1) and the research-training environment (2) have some predictive power over research output amongst clinical psychologists. Holtum and Goble (2006) proposed four variables that could impact upon these predictors and outcomes: intention (3) - a factor shown to mediate between predictors and actual behaviour (Armitage & Conner, 1999); attitudes (4); subjective norms (5); and control beliefs (6). Hollingsworth and Fassinger (2002) demonstrated that research mentoring (7) - a feature of the research training environment (RTE) - could predict research activity. External control beliefs, such as obstacles in the work environment, coupled with inadequate research training leads to low research self-efficacy (Corrie & Callanan, 2001). Constraints in the practice setting (8) have a strong link between external control beliefs and real-world factors. Professional identity (9) is another important aspect in the context of research activity. Sex-role identity (10) has also been proposed by studies of nurses and midwives who have perceived research as a male activity (Hicks, 1995).

The relevance of professional identity to research activity is suggested by social identity theory (Tajfel & Turner, 1979), which posits that key components of what it means to be a clinical psychologist have ramifications for the output of a clinical psychologist. If the authentic professional identity of clinical psychologists does not encompass the scientist-practitioner model (Pilgrim, 2003), then this provides a possible explanation for the lack of research activity that clinical psychologists undertake: a lack of identification with the role of 'researcher', means research activity is undervalued, and the scientist-practitioner model is rejected (Newman & McKenzie, 2011). Therefore, the RTE on DClinPsy courses has an important role in the formation of professional identity (Holttum & Goble, 2006), and power to create either a positive scientist-practitioner identity or to alienate trainees from this identity (Corrie & Callanan, 2001).

The confidence people have in successfully completing tasks associated with conducting research is their research self-efficacy, which is related to their control beliefs (Forester et al., 2004). Whilst high confidence in research capability can positively correlate with research productivity (Bailey, 1999), negative attitudes can obstruct achievements in research activities and result in low performance (Zeidner, 1991). Kahn and Scott (1997) also suggested that training courses often do not nurture environments that facilitate positive attitudes toward research. A consequence of this is students feeling less confident in their research abilities and being less likely to perceive positive outcomes of research involvement (Kahn, 2001).

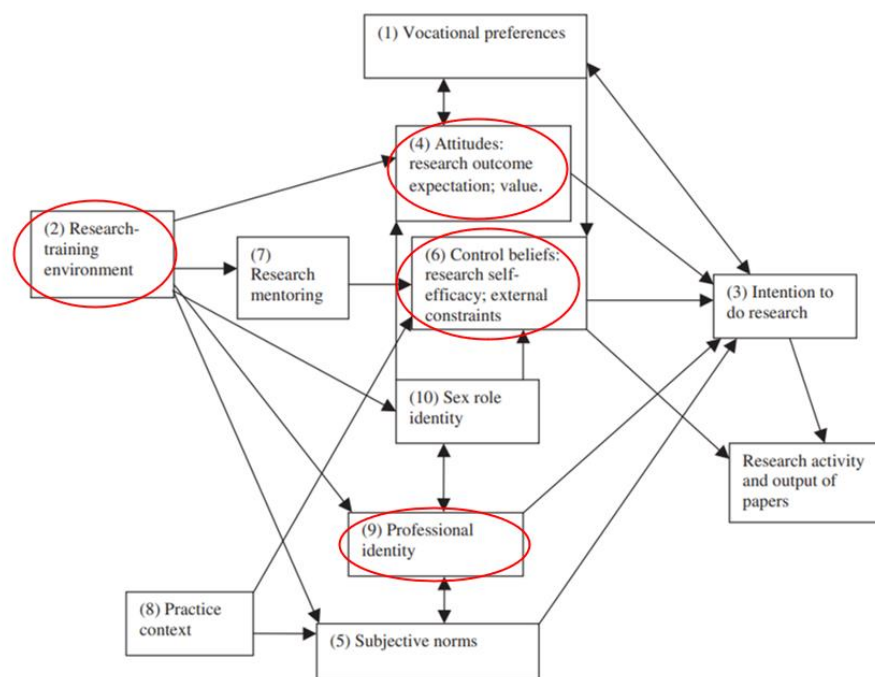


Figure 1. Factors influencing clinical psychologist research activity

Confidence should be built within the RTE, which can showcase the positive outcomes of research involvement and emphasise the value of the researcher aspect of the clinical psychologist's identity. However, investigation of clinical psychologists' research activity has tended to focus on that of qualified psychologists, overlooking factors impacting those currently training. It is therefore important that research explores factors affecting trainees to understand the issues surrounding the development of their researcher-identity and engagement with research practice, including output, as this has implications for the generation of practice-based evidence and translation of the evidence-base to practice. Understanding more about the trainee experience could also provide valuable evidence on steps that could be taken by DClinPsy courses to build more positive and effective RTEs.

To the authors' knowledge, Holtum and Goble's (2006) model has not been applied to trainee clinical psychologists within the UK. Therefore, the aim of this research was to spotlight trainee clinical psychologists, exploring their RTE, attitudes towards research, control beliefs/self-efficacy, and professional identity. The research questions addressed were:

1. Do trainees perceive their DClinPsy programme to support and encourage research, both on the course and post qualification? (RTE)
2. Do trainees deem research to be part of the role of a clinical psychologist? (Professional identity)
3. What are trainees' attitudes towards research? (Attitudes)
4. Do trainees feel confident doing research? (Control beliefs)

METHOD

Design

This cross-sectional study collected data using a questionnaire battery hosted online by Qualtrics. The survey consisted of existing quantitative questionnaires, as well as questions designed for the current study, all of which are described below.

Participants

UK-based trainee clinical psychologists, at the end of their first year or beginning of their second year, were the target population. At the time of recruitment, these were trainees who joined their DClinPsy programme during September/October 2020. The rationale for this

being that trainees would become acculturated to their course's research culture over the course of their training. Therefore, those early in their training journey would be able to remember and comment on their pre-training research beliefs and would also have had the opportunity to experience, and be able to comment on, the impact of their RTE in terms of how this had influenced (or not) their attitudes toward research. It was felt that research attitudes and control beliefs of those nearer course completion would have been more heavily influenced and their recall of past attitudes may not be as accurate.

Measures and Materials

Participant demographic and course-related questions were used to ascertain age, sex, length of research experience prior to training, the year training commenced, and trainees' perception of the distribution of qualitative and quantitative research training on their programme.

RTE was accessed using an adapted version of the Research Training Environment Scale Revised (RTES-R; Gelso, Mallinckrodt & Judge, 1996). Four questions exploring qualitative teaching were added to the 'Teaching Relevant Statistics' subsection of the scale to ensure participants could reflect on both quantitative and qualitative teaching they received. The RTES-R includes items representing nine necessary components of the research training environment described by Gelso (1993). Each component is measured by six items using a Likert-type response format from 1 (disagree) to 5 (agree). Total scores range from 58-290, with higher scores representing more positive perceptions of the RTE.

Research attitudes were explored using the Research Outcome Expectations Questionnaire (ROEQ; Bishop & Bieschke, 1998) and an adapted version of the Past Attitudes Toward Research Questionnaire (PATRQ; Royalty et al., 1986). The ROEQ is a 20-item questionnaire with a Likert-type response format from 1 (strongly disagree) to 5 (strongly agree). Scores range from 20-100, with higher scores suggesting more positive research outcome expectations. To also explore current views and enable comparison of pre-training attitudes about research with current attitudes, each of the four PATRQ items were adapted to the present tense producing eight questions overall. The PATRQ also has a Likert-type format from 1 (strongly disagree) to 5 (strongly agree).

A question about professional identity was created, following consultation with trainee clinical psychologists, requiring participants to rank six distinct roles commonly undertaken by clinical psychologists in order of their perceived importance. These roles were: leader, therapist, researcher, teacher, activist, supervisor.

Control beliefs were explored using an adapted form of the Self-Efficacy in Research Measure (SERM; Kahn & Scott, 1997). Five items were added to explore research self-efficacy in relation to designing and analysing qualitative data due to the measure originally focusing on quantitative research. The SERM questionnaire has a Likert scale response format, from 0 (no confidence) to 9 (total confidence), relating to various research tasks. Total scores range from 0 to 162, with higher scores suggesting greater research self-efficacy.

Procedure

Data collection took place between October and December 2021. A link to the Qualtrics survey, enabling anonymous participation, was disseminated via social media (i.e., LinkedIn, Twitter, WhatsApp) and word of mouth. A recruitment invitation email was also sent to all the DClinPsy courses in the UK, although it is not known how many courses forwarded this to their trainees. Participants were required to provide informed consent before accessing and completing the survey. Descriptive and basic inferential statistics were employed to analyse the quantitative data collected.

Ethics

Ethical approval for this project was obtained from the University of Hertfordshire's Health, Science Engineering & Technology Ethics Committee ECDA (LMS/PGR/UH/04702).

RESULTS

The survey was completed by 44 trainee clinical psychologists who starting training in 2020 (mean age = 29 years, range 25-43 years; 89% female and 11% male; mean length of research experience prior to starting training = 2.4 years, range 0-7 years). In terms of perceived course alignment with quantitative or qualitative research, 27% (n=12) of participants reported their programme to be predominantly qualitative, 52% (n=23) felt their programme was balanced between the two orientations, and 20% (N=9) felt their course was more quantitatively focused. Data was not collected regarding which training programmes were represented in the dataset.

Do trainees perceive their DClinPsy programme to support and encourage research, both on the course and post qualification? (RTE)

For each of the nine necessary components of the RTE described by Gelso (1993), based on the method of analysis used by Burke and Prieto (2019), the mean score was aligned with Likert-type anchors for interpretation: 0-6 (disagree); 7-12 (somewhat disagree); 13-18 (neutral); 19-24 (somewhat agree); 25-30 (agree). Descriptive statistics for each subsection of the RTES-R are presented in Table 1, with results indicating that trainees did not report perceptions of a strong research training environment, rather a tendency to “somewhat agree” that there was encouragement around research.

RTES subsection	n	Mean	Median	Range (SD)	Anchor
Faculty Modelling	44	20.3	21	5-28 (4.8)	somewhat agree
Positive Reinforcement	44	17.5	21	11-23 (4.8)	neutral
Early Involvement in Research	44	21.3	22	13-28 (3.4)	somewhat agree
Teaching Relevant Statistics	44	34.2	35	22-46 (5.3)	² somewhat agree
Looking Inward for Ideas	44	19.3	19	11-27 (3.1)	somewhat agree
Science as a Social Experience	44	20.2	20.5	7-26 (4.3)	somewhat agree
All Experiments are Flawed	44	19	18	14-28 (3.2)	somewhat agree
Focus on Varied Investigative Styles	44	17.3	17	11-22 (2.4)	neutral
Wedding Science and Practice	43	17.8	18	14-24 (1.7)	neutral
Total scale score		186.9	188	156-214 (13.6)	agree

Table 1. Descriptive statistics for subsections of RTES (²adapted to consider 10 questions within this subsection)

Do trainees deem research to be part of the role of a clinical psychologist? (Professional identity)

Six distinct roles commonly undertaken by clinical psychologists (leader, therapist, researcher, teacher, activist, supervisor) were ranked by 43 participants in order of their perceived importance. Table 2 shows that most participants thought being a therapist was the most important role of a clinical psychologist (39.5%; n=17).

Number of participants ranking role as ‘most important’	Role of Clinical Psychologist
17	Therapist
15	Leader
7	Teacher
2 =	Activist
2 =	Researcher
0	Supervisor

Table 2. Participant opinions of the most important role of a clinical psychologist

Considering the role of the researcher specifically, the rank assigned in relation to the other roles varied, as shown in Table 3. Most participants ranked the role of researcher as the least important aspect of the identity of a clinical psychologist (51.2%, n=22), with only 4.7% (n=2) ranking the researcher role as the most important.

Rank	n	%
1	2	4.7
2	2	4.7
3	5	11.6
4	5	11.6
5	7	16.3
6	22	51.2

Table 3. Position in which participant's ranked the role of researcher

What are trainees' past and current attitudes towards research? (Attitudes)

All participants (n=44) completed the ROEQ assessing current attitudes towards research. Using the same prior method, average scores were aligned with Likert-type anchors: 0-20 (strongly disagree), 21-40 (somewhat disagree), 41-60 (neither agree nor disagree), 61-80 (somewhat agree), 81-100 (strongly agree). With a mean score of 72.2 (range = 48-89), results suggest that, overall, participants "somewhat agreed" with having a positive outlook on outcomes they would expect to occur from engaging in research activities.

Participants were asked about their attitudes toward research prior to training using the PATRQ (Royalty et al., 1986). This was compared with their current views about research using an adapted version of the same questionnaire. A non-significant positive correlation between prior attitudes and current attitudes was found (Pearson correlation coefficient = 0.18; p = 0.24).

Table 4 shows results of a Wilcoxon Signed-Rank Test on all questions of the Past and adapted Current Attitudes Toward Research Questionnaire. For all questions except Q5 and Q6, there was one participant who chose not to answer one of the questions.

Analysis of Q1 and Q2 demonstrated that, overall, participants had significantly more positive attitudes to research since starting training, as they now indicated more of a preference to complete a research project as part of their doctoral training compared to pre-training. Comparison between Q3 and Q4, demonstrated that, overall, participants were

significantly more interested in doing research because of being on training. Analysis of Q5 and Q6 demonstrated that the value participants placed on research in their future careers had not changed significantly since pre-training. Finally, comparison between Q7 and Q8 showed that, overall, there was no significant change since pre-training in terms of how much of a priority participating in research activity after graduation was to participants.

Past and Current Attitudes Toward Research Questions	n	Mean	SD	Min.	Max.	Mean Rank	Wilcoxon Signed-Rank
Q1. Before training I would have preferred to have the option of completing my doctoral training without being required to complete research projects	43	2.7	1.5	1	5	9.2	z = -2.2, p = 0.03
Q2. Now I am on training I still would prefer the option of completing my doctoral training without being required to complete research projects	43	2.3	1.4	1	5	6.5	
Q3. Before training I had a strong interest in doing research	43	3.0	1.4	1	5	12.1	z = -2.5, p = 0.01
Q4. Now I am on training I have a strong interest in doing research	43	3.5	1.1	1	5	13.3	
Q5. Before training I placed a high value on research in my future career	44	2.8	1.5	1	5	10.1	z = -1.4, p = 0.15
Q6. Now I am on training I place a high value on research in my future career	44	3.1	1.2	1	5	14.2	
Q7. Before training participating in research activities after graduation was a major priority for me	43	3.4	1.2	1	5	20.8	z = -1.3, p = 0.18
Q8. Now I am on training, participating in research activities after graduation is a major priority for me	43	3.0	1.2	1	5	13.8	

Table 4: Descriptive statistics for Wilcoxon Signed-Rank Test

To what extent do trainees feel confident in doing research? (Control beliefs)

Participants were asked about their research self-efficacy in relation to various research tasks. Scores ranged from 30 to 124 out of 162 (Table 5). With a large range, mean and median scores indicate neither perceived self-efficacy or inefficacy for qualitative or quantitative methods, or research overall.

	Total possible score	Mean	Median	Range (SD)
Self-Efficacy relating to quantitative data	117	63.6	65.5	26-93 (17.0)
Self-Efficacy relating to qualitative data	45	21.8	22.5	4-39 (8.0)
Self-Efficacy in Research Measure	162	85.4	83.5	30-124 (22.4)

Table 5: Descriptive statistics for Self-Efficacy in Research Measure scores

DISCUSSION

Previous research has supported the relationship between the RTE, research self-efficacy, research attitudes, and professional identity as predictors of research output within clinical psychology. The current study investigated these variables, broadening the focus to include trainee clinical psychologists, the results of which aligned with previous research (Eke et al., 2012; Holttum & Goble, 2006; Wright and Holttum, 2012). Regarding research attitudes, Kahn and Scott (1997) noted that courses do not foster RTEs that facilitate positive attitudes towards research. Twenty-five years later, this research found that the RTEs of courses do foster somewhat positive attitudes towards research, with trainees showing a significantly greater interest in doing research once undertaking training, although improvements can still be made. For the majority, there did not seem to be a sense of positive research attitude informing the trainees' sense of identity and participants reported limited confidence in their perceived ability to complete research tasks.

If being a researcher is a unique aspect of the identity of clinical psychologists, separating them from other professions, this is an aspect of professional identity that needs to be given more attention both by the BPS and the training providers. McHugh et al. (2016) identified that trainees are often oriented toward clinical practice more than research. Considering the necessary components of an RTE outlined by Gelso (1993), only six of the nine subcategories fed into the somewhat positive view trainees held about their RTEs. Training courses could develop their RTEs with the aim of better incorporating all of the necessary components, for example, the use of 'varied investigative styles' as this aspect of research training received low scores from participating trainees, yet it is a contributing factor to a positive RTE (Galassi et al., 1987). As 48% of participants in this study reported that their course did not provide balance between the qualitative and quantitative orientations, if enhancing research attitudes and self-efficacy is to be prioritised, then it is important trainees can familiarise themselves with a range of research methods through the RTE.

A consideration of the strengths and limitations of the current study is warranted. This study recruited only 44 of approximately 770 trainees who fit the inclusion criteria; a finding in itself that requires reflection. It is not known which courses are represented in the data, or whether all courses forwarded the study invitation to trainees. If it is true that trainees do not consider the researcher role as important, then they may be disinclined to participate in studies about their research attitudes which could suggest more negative research attitudes in trainees nationally. The results also demonstrated that there was much variation across participants' responses in terms of the perceived research training environment, research attitudes,

research self-efficacy, and professional identity. A larger sample would enable stronger, more generalisable conclusions to be drawn. It would also be beneficial to collect qualitative data regarding participants' justification for their responses, such as why they perceive certain aspects of the clinical psychologist's role to be more important than others and what might inspire them to engage in research activity post-qualification.

Regarding the study design, it is important to consider how difficulties can arise when collecting comparison data at one time-point. Within this study, the PATRQ was adapted to compare pre-training and current attitudes however, trainees' recall of past attitudes may have been influenced by current research attitudes and hypotheses about the purpose of this research. A longitudinal research design would better enable assessment of changes in attitudes over time but this was not possible during the time over which this project was conducted. A strength of the study is the breadth of concepts explored in the survey, with the items chosen being informed by previous theory and research. Validated questionnaires were chosen to investigate these concepts, in addition to adapted items to address study-specific research questions. This did lead to the creation of a long questionnaire-battery which may have been experienced as burdensome and could explain why some trainees did not give complete responses.

Considering the above limitations, tentative recommendations can be offered to inform clinical psychology RTE development. The findings support a need for consideration as to how Gelso's (1993) nine components, necessary for a positive research training environment, can be ensured. Whilst there is some evidence of provision for most of the recommended components, the perceived RTE could still be improved, especially for the three elements that were perceived as lacking (positive reinforcement, focus on varied investigative styles, and wedding science and practice). Programmes could, for example, introduce a newsletter highlighting student and staff research activity, support could be provided with research dissemination, and there could be more encouragement for major research projects to build upon one another so that the work of trainees continuously stimulates future research activity and output. Consideration should also be given to the influence of role models and the impact of having a clinical psychologist or academic leading research on the training programme. If academics lead on this element of training, it could reinforce the perception of research not being important for clinical psychologists. Some courses also require an attempt at publication to be demonstrated prior to course completion; should trainees experience this as burdensome rather than encouraging, it may not inspire newly qualified psychologists to continue to engage in research activity and dissemination.

Future research could investigate the predictive nature of the factors explored here on trainee intention to do post-qualification research. Whilst this study collected demographic data to give context to the findings, the relationships between these factors and their impact on trainee attitudes towards research were not examined. Holttum and Goble (2006) found sex and identity related to sex roles could be a factor that affects attitudes towards research. The length of prior research experience may also impact the self-efficacy and attitudes that participants have towards research. In addition, the perceived favouring of courses towards qualitative or quantitative research may have elicited more confidence in one methodology than another. These hypotheses could be tested in future research.

Conclusion

It is hoped that these preliminary findings can inform initiatives that encourage and support research engagement amongst trainee clinical psychologists that continues beyond their training. Trainees need to feel confident in this valuable aspect of their identity and need to better understand the value of it. It would be helpful to consider what support and resources are necessary within and beyond training to ensure that research activity as an integral aspect of the clinical psychologist's role. Emphasis should be placed on the positive outcomes of research and the important wedding of applied research with practice through impact case studies. If clinical psychologists' engagement in research is more visible to trainees, this may shape expectations and values related to the roles of a clinical psychologist. However, for this to take place, employers such as the NHS need to allocate adequate protected time for clinical psychologists to engage with research. Not only would this be likely to have an impact on the wider research culture of services and trusts, but it would make more explicit the link between research and practice within the profession.

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