Real-World Training for Real-World Benefits:

Exploring the Impact of Practice-Based Service Evaluation Training

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Abstract

Service evaluation is a major part of delivering effective healthcare. It is important that the future workforce of clinical psychologists is equipped with the skills required to complete evaluations of the services that they deliver. This article investigated the extent to which practice-based Service Evaluation Projects (SEPs) completed by trainee clinical psychologists at the University of Leeds had an impact on the real-world services that commissioned them. Descriptive analysis was used to summarise the characteristics of SEPs completed over the past thirteen years and to explore feedback from semi-structured interviews held with a sample of commissioners. Thematic analysis was used to identify key themes relating to the impact of SEPs. 230 SEPs have been completed in the past thirteen years. Interviews with 15 commissioners concerning 38 individual SEPs found that the majority had a positive impact ($n = 33$), most of which were able to bring about a change independently of other initiatives within the service ($n = 20$). Almost all would have been impossible without the opportunity for clinicians to commission SEPs via the university. Three key themes emerged in terms of impact: improving processes; improving knowledge; and improving resources. Practice-based service evaluations completed by trainee clinical psychologists can lead to a positive impact on real-world services. This suggests that providing training experiences 'in the field' is a helpful pedagogical strategy, adding value to services as well as trainee health professionals.

Keywords: clinical psychology; practice-based education; service evaluation; work-place learning; workforce development

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Introduction

Service evaluation and healthcare systems

The growing pressure on global healthcare services has been well established. The challenge of delivering healthcare in the context of increased patient expectation, chronicity and complexity of healthcare needs, and of reduced funding through austerity has been felt around the world. Indeed, analysis of healthcare delivery in 11 countries concluded that "public demands for more healthcare resources are usually incompatible with the requirement to save money" (Association of Charted Accountants 2015: 19). For example, the UK government has set a target for the National Health Service (NHS) to make productivity improvements of £22 billion by 2020/21, alongside a commitment to growing service, such as the delivery of a 'seven-day service' (NHS England 2019).

In this context, evaluating whether services are effective is crucial. Service evaluation is the primary method to assess whether services are delivering good outcomes. Service evaluation refers to the "systematic assessment of the implementation and impact of a project, programme or initiative" (NHS Institute for Innovation and Improvement 2011: 6). The King's Fund, a health and social care thinktank in England, has recently made the case for placing quality improvement at the heart of how the NHS can respond to these unprecedented pressures and deliver the changes needed to meet new targets (Ham, Berwick and Dixon 2016). This judgement has also been made on a global scale in a report by the Global Health Workforce Alliance and World Health Organisation, which concluded that "performance assessment and quality of care is afforded insufficient priority" (Global Health Workforce Alliance and World Health Organisation 2013: 30). Service evaluation can be distinguished from 'pure' research projects, which are often completed in an abstract and more theory-driven context rather than being aligned to a particular real-world service and the inability to rigorously control all factors other than those that you are interested in studying.

Service evaluation and clinical psychology

Evaluating the effectiveness of services is one of the key roles of a clinical psychologist, and a cornerstone of the profession's scientist-practitioner ethos. The American Board of Professional Psychology differentiates 'research' and 'service evaluation' in building evidence-based practice. Moreover, the Australian Psychological Association points to programme development and evaluation being a specific area of practice for clinical psychologists.

To equip the future workforce of clinical psychologists with the skills needed to conduct service evaluations, assignments to develop these skills are a core part of training. In the UK, the British Psychological Society (BPS) requires all doctoral training programmes to ensure that trainee clinical psychologists (trainees) have "… the capacity to conduct service evaluation, small N, pilot and feasibility studies and other research that is consistent with the values of both evidence-based practice and practice-based evidence" (Partnership and Accreditation 2019: 19). 'Small N' research designs typically study one or only a few participants that are not assigned into different groups. As mentioned above, service evaluation projects are completed in contexts distinctly different from purely academic research projects. They require individuals to consider carefully the multiple real-world influences on the problem being addressed. They must also navigate the multiple potential variables that may be contributing to the problem. Pedagogically, this presents a different learning need: how do you teach individuals to tailor their research skills to investigate real-world problems in real-world services? The doctor of clinical psychology programme at the University of Leeds has designed its curriculum in line with the ethos of practice-based education that requires trainees to complete small-scale service evaluation projects (SEPs) in real-world clinical settings. Practice-based education can be defined as education that prepares graduates for occupational practice, where occupational practice refers to various professions and disciplines from medicine to music (Higgs, Barnett, Billett, Hutchings and Trede, 2012). The aim of the SEP assignment is to help trainee clinical psychologists to tailor their research skills in a pragmatic way that targets real challenges in

local services. The clinical psychology programme at Leeds mandates that the service evaluation projects must be:

> "… practical and useful. It should relate to some aspect of a current service or planned service development. It should always be driven by the host service that commissions the project, providing valuable information that they will be able to use" (SEP Manual 2016: 2).

This definition implicitly insists that the aim of service evaluation ought not to be to equip the trainees with skills in evaluation alone, rather that they must also ensure that the outcome of the evaluation is valuable and useable. SEPs are different in scope and scale to doctoral theses, which are more comprehensive and academic. Clinicians working in services locally identify the need to evaluate an aspect of their service and to 'commission' trainees to meet this need. This means that all evaluations take place within the context of a clinical service, and trainees are required to go beyond a theoretical understanding of how to complete a service evaluation.

Clinicians wishing to commission a SEP must submit a brief form outlining the details of the evaluation required to the course Research Director. The course itself can also commission pedagogical projects that evaluate aspects of training, such as teaching or competency development. Trainees then select the project that they are most interested in and liaise directly with the commissioner to complete the project. Trainees receive supervision from their Academic Tutor, part of the Clinical Psychology programme, on aspects of the research design methodology and analysis.

This article aims to evaluate the impact of SEPs as a practice-based educational activity that cultivates a community of practice focussing on improving services.

Thus, the present evaluation aimed to:

(1) Explore the demographics of SEPs completed by trainees at the University of Leeds;
(2) Investigate the impact of SEPs on services.

Methods

Ethical considerations

This is a review of the outcomes of previously completed projects, involving the analysis of reports generated from these projects held by the University, and follow-up interviews with colleagues at the University and local NHS services previously involved with these projects. In accordance with the definition developed by the Medical Research Council and Health Research Authority, this project is classified as 'service evaluation'. As such, review by a research ethics committee was not required (Health Research Authority 2017).

Procedure

A database of clinicians and the SEPs that they had commissioned was available from the Clinical Psychology Programme which provided information on their characteristics. In arranging to speak with commissioners about their SEPs, there was a need to ensure that our sample was as representative as possible. For example, the database of completed SEPs showed that some clinicians had commissioned several while others had commissioned only one. Additionally, we wanted to speak with clinicians who had commissioned SEPs across the thirteen years that they had been running. When speaking with commissioners about SEPs completed several years ago, they were reassured that the full details of the SEP did not need to be recalled and that we were working on the assumption that if there was something significant (or not) then it would be remembered.

Commissioners were approached by telephone or email and asked whether they would be willing to share their experiences of commissioning a SEP. If commissioners agreed to

participate, a time to speak over the phone or in person was arranged. All commissioners approached were willing to share their experiences.

Analysis

A mixed-methods approach to analysis was used. Quantitative data was analysed using descriptive statistics to summarise data and identify any potential patterns. Inferential statistics were not used as this evaluation did not aim to test any experimental hypotheses.

Qualitative data was analysed using thematic analysis, an approach for "identifying, analysing and reporting themes within data" (Braun and Clarke 2006: 79). This descriptive approach was necessary because we were attempting to describe the key ideas coming from the majority of commissioners. Thus, the thematic analysis represented a simple yet robust approach to analysis and was conducted in line with the six phases outlined by Braun and Clarke (2006: 87):

    (1) Familiarising yourself with your data;
    (2) Generating initial codes (interesting elements of the data);
    (3) Searching for themes (exploring and grouping codes at a broader level);
    (4) Reviewing themes (e.g. considering whether initial themes could be grouped together or need to be differentiated into further sub-groups);
    (5) Defining and naming themes (identifying the essence of the theme);
    (6) Producing the report.

Results

This section presents the results by firstly summarising the demographics of SEPs that have been completed by trainees in the University of Leeds, and then exploring the impact of SEPs based on interviews with commissioners.

Demographics

Commissioners

Trainees completed 230 projects since 2002. These were commissioned by 141 different local clinicians; 65 projects were jointly commissioned with others. 53 clinicians commissioned more than one project, but 88 commissioned only one. Those most frequently commissioning were staff of the Doctor of Clinical Psychology programme (of the ten individuals who have commissioned the highest number of projects, seven were staff of the doctorate programme), though this may be a reflection of the frequent collaboration between the programme and local clinicians interested in commissioning a project, with University staff supporting design and analysis and local clinicians supporting the project in the field.

Clinical specialties

Figure 1 demonstrates the wide variety of clinical specialties that have commissioned projects. Adult and child services are the most frequent commissioners, closely followed by clinical training.

Within the category of Adult, nearly half of the clinical specialties are Adult Clinical Health Psychology (14%) and the others are Adult Psychological Therapies. The Child category is primarily made up of Paediatrics (10%), and Child and Adolescent Mental Health Services (CAMHS; 7%). Other Child services rarely commissioned SEPs; child development, for example, accounted for 3% of all projects.

The category of 'Other' captures specialties that have commissioned very few projects, including neuropsychology. For example, one SEP evaluated both Adult and Older Adult services. The 'Other' category also includes instances where it was unclear from the database

which clinical specialty the SEP studied, and where the original SEP was not accessible to check.

Figure 1: Percentage of SEPs commissioned by clinical specialties
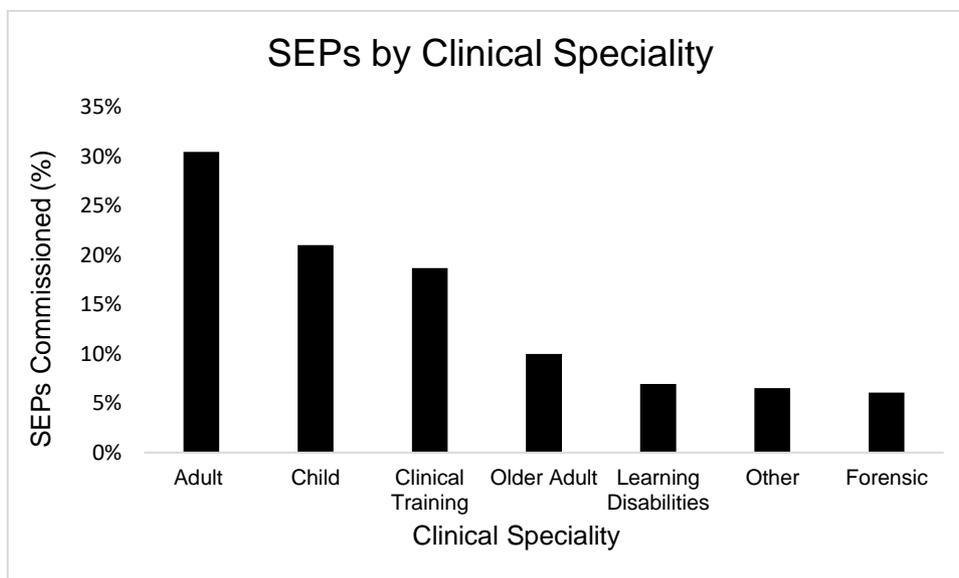
Commissioning Trusts

Projects were completed with eight of the ten NHS Trusts in our area, although some Trusts completed substantially more projects, with five Trusts commissioning 75% of all projects. Figure 2 shows that nearly a quarter were commissioned by Leeds Partnership NHS Foundation Trust (23%), with Leeds Teaching Hospitals NHS Foundation Trust accounting for 21%.

Figure 2: Percentage of SEPs by commissioning NHS Trust
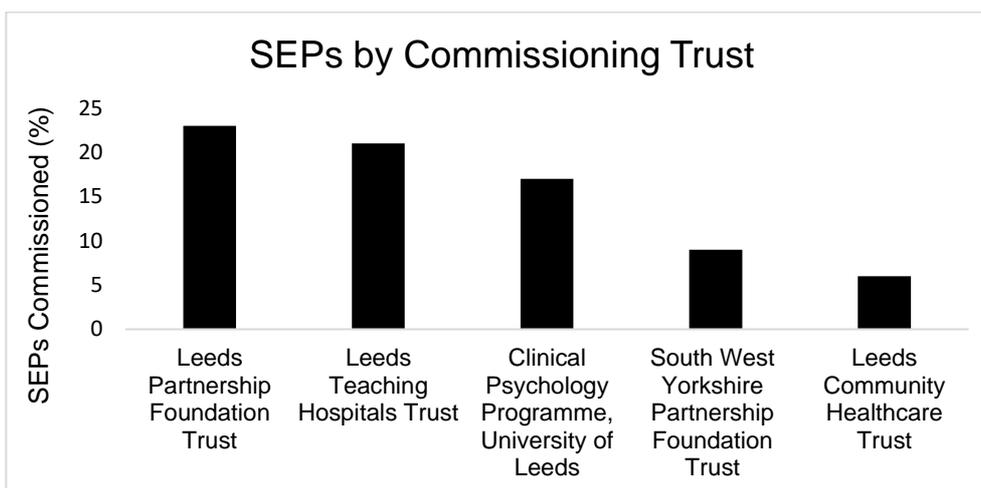
Commissioning trends over time

There were no patterns in terms of the specialties that commissioned projects over time. Rather, it revealed variability in the number of projects commissioned by each specialty each year.

Impact

Participants

Interviews were held with 15 commissioners, who discussed 38 different completed SEPs. The proportion of commissioners interviewed from each speciality represented the frequency with which each speciality had commissioned SEPs in total. Table 1 shows that these proportions are broadly similar.

Table 1: Number of sample interviewed by clinical speciality

Speciality	Sample interviewed	Number of commissioned SEPs
Adult	14 (27%)	68 (30%)
Child	7 (22%)	49 (21%)
Clinical Training	6 (16%)	43 (19%)
Older Adults	4 (17%)	24 (10%)
Learning Disability	5 (15%)	17 (7%)
Neuropsychology	2 (3%)	5 (2%)

Would projects have been completed without the SEP process?

More than three-quarters of projects would not have been undertaken by the service without the opportunity to commission a SEP ($n = 29$). Of the nine projects that would have been undertaken by the service, all commissioners strongly believed that the project would not have been completed to the same high standard. Examples from commissioners include:

> The project would have been done but clinicians are over-stretched and under-resourced so this was more thorough and additional supervision through the course staff was helpful. (Commissioner 7)

> It would have been completed but the SEP provided a more systematic approach, more rigour and more depth. (Commissioner 9)

Moreover, five commissioners explained that the SEP process was particularly important because it afforded an element of impartiality (the researcher not being a member of the Trust) that would not have been obtained otherwise. The commissioners who found this particularly valuable had commissioned SEPs that sought feedback from staff or clients:

> It was important to have an independent researcher come into the Department because the staff were able to be more honest in their feedback than if we had gone in [as clinicians already working there]. (Commissioner 15)

Do projects have an impact on services?

The majority of projects were reported to have had a positive impact on services ($n = 33$). Five did not, for different reasons. For example, one commissioner explained that the service was closed shortly after the SEP was completed, due to lack of funding. Another cited that a barrier to implementing was the length of time between data collection and receiving a copy of the report. This was particularly lengthy because of the trainee had initially failed the academic component of the assignment. One commissioner responsible for commissioning multiple SEPs

believed that the biggest single factor was the engagement of the trainee in facilitating real-world impact, as opposed to seeing the project purely as a University assignment.

How do projects impact services?

Of the SEPs that had an impact, nearly two-thirds brought about an impact on services independently of other evaluations ($n = 20$). Six were linked with other SEPs, and three to other research. Finally, four SEPs brought about a change in conjunction with other initiatives that were ongoing within services.

What is the impact of projects?

The themes and sub-themes that emerged from the thematic analysis of descriptions provided by commissioners are shown in Table 2. There were three main themes:

(1) Improved processes – either through changes to direct clinical work with patients, indirect working with staff, or though changes to broader service pathways;
(2) Improved knowledge – either through the development of an evidence base, as one might be looking for an evaluation of a group, or through better understanding of issues relating to services or patients;
(3) Improved resources – either through improving the amount of subsequent research and analysis completed by the trust or by improving the clinical services available.

Were projects disseminated?

Most projects were disseminated within the services where they were completed. Frequent methods of dissemination included presentation to the team ($n = 13$) and sharing a copy of the written report ($n = 10$). Disseminating the findings of SEPs externally was less common, however; six projects led to publication in journals including *Journal of Cystic Fibrosis*, *Clinical Psychology Forum*, and the *Journal of Nursing Children and Young People*. Six projects were also presented at conferences.

Any further plans to implement changes in the future?

Some commissioners interviewed had only recently had their project completed (i.e. within the past six months). To ensure that any potential impact from these projects was not missed, commissioners were asked about whether there were any future changes planned but not yet implemented. Five indicated that there were; four related to the 'Improved processes' theme; and one to the 'Improved resources' theme.

Discussion

This study summarised the characteristics of SEPs completed by trainee clinical psychologists and explored their impact through interviews with the clinicians who had commissioned them. Trainees completed 230 SEPs over thirteen years. These were commissioned across hospital and community NHS Trusts, and supported a wide range of clinical specialties. The majority led to a clear positive impact on the commissioning service. Three themes emerged in descriptions of this impact: first, they improved processes within services; second, they improved knowledge about an aspect of the service; and, third, they improved resource for further clinical or research work within the service.

Pedagogical implications

To our knowledge, it is rare to use a commissioning-based approach to teach service evaluation skills to trainee clinical psychologists. This may be a symptom of the wider division of university programmes as either 'taught' or 'research' programmes (Lester and Costley 2010) rather than an integrated and practice-based approach as described here. This method of practice-based education, which requires the completion of an academic assignment within clinical services,

Table 2: Themes identified about the impact of projects

Theme	Sub-theme	Examples
Improved Processes	Clinical work with patients	"Some participants struggled to remember what had happened in previous sessions so we gave them more handouts with more detailed information so that they could act as memory aids" (Commissioner 4)
		"We have changed how we assess for our therapy group – giving more consideration to demographics like gender" (Commissioner 6)
	Working with staff	"We changed our approach to supporting staff. We developed more events and training" (Commissioner 14)
		"We have made sure that there is a greater presence of psychology at ward rounds for staff" (Commissioner 15)
	Service pathways	"It helped us to decide which intake model the service should use" (Commissioner 9)
		"We have changed our approach to follow-up care – e.g. calling patients to reduce drop-out / non-engagement" (Commissioner 12)
Improved Knowledge	Building an evidence-base	"The evaluation showed that the new group was effective, which enabled it to continue to run" (Commissioner 11)
		"The data was positive so it encouraged us to continue to run the groups" (Commissioner 1)
	Understanding of issues	"It has made the service become more aware of the needs of a certain group of clients" (Commissioner 2)
		"It helped us to understand that there was a disparity between psychologists in terms of what they were offering" (Commissioner 7)
Improved Resources	Developing research programmes	"The service has commissioned another SEP to further explore the findings of the first two SEPs" (Commissioner 2)
		"This SEP was the foundation of more extensive subsequent evaluation two years later" (Commissioner 11)
	Developing clinical services	"Using the SEP, the Head of Service was able to find funding for additional training of staff" (Commissioner 4)
		"A new Clinical Psychologist was in post within a year" (Commissioner 1)

has led to real-world benefits for the services that have been evaluated. Most SEPs had a positive impact on services independently of other projects, audits or evaluations conducted in that service. From this, it is reasonable to infer that there is something about the SEP process itself that is helpful, and the impact is not attributable to other activities in services. Anecdotal evidence from the trainees also suggests that the process is helpful to them, that there is value in an academic assignment that is grounded in local clinical practice and where the practical impact is often clear.

When considering what makes the process of completing practice-based education assignments such as SEPs helpful, we might learn from the concept of 'communities of practice'. Wenger-Trayner and Wenger-Trayner (2015) have written helpfully about the nature of communities of practice, which they define as groups "formed by people who engage in a process of collective learning in a shared domain of human endeavour" (1). This definition provides a framework within which we can consider that SEPs cultivate a sense of community between clinicians, trainees and academics, all of whom come together to share their learning about continuously improving services. Indeed, Wenger-Trayner and Wenger-Trayner (2015) describe three key characteristics of communities of practice. They argue that all three are needed in parallel to create a group than can be thought of as a community of practice:

(1) Domain – group identity is defined by a shared domain of interest;
(2) Community – the joint activities that group members engage in to help each other and share information;
(3) Practice – the development of a shared repertoire of resources over a sustained period of time.

All three elements are a core part of the SEP process. The 'domain' is a shared commitment to research, evaluation and evidence-based service improvement. The 'community' is developed through supervision, meetings, and an annual conference to share experience and learning across all completed SEPs. Finally, the 'practice' is facilitated in multiple ways, such as the creation and sharing of written reports about the learning that clinicians and trainees have engaged with. Communities of practice are reinforced after trainee clinical psychologists qualify and move from the trainee role to the commissioner role. In this regard, the community of practice becomes a cyclical and reciprocal community, with each generation of trainees contributing to the development of the next. The nature of this cycle suggests that psychologists believe there is merit in completing service evaluation projects in this way. The learning that is fostered through this practice-based curriculum is two-fold: not only do trainees develop the skills needed to evaluate services, but they also learn the value in evaluation of real-world services which they can take forward into their own services once they have qualified. Taken together, this highlights the utility of applying a practice-based education approach to the teaching and assessment of service evaluation skills.

Wider implications

SEPs completed by trainees offer a significant addition to the capacity of local services to carry out evaluation and audit, and are seen as being of high quality and having a high impact. Despite international calls to prioritise service evaluation (Ham, Berwick and Dixon 2016, Global Health Workforce Alliance and World Health Organisation 2013) clinicians often do not have the time to do this effectively given the current context of increased pressure on healthcare services and ever-tightening resource constraints (Association of Charted Accountants 2015). The findings of the present study suggest that practice-based education for healthcare professionals developing service evaluation skills may be one solution to the dilemma of being urged to evaluate services while simultaneously being less able to do so. External validation of the quality and applicability of the SEPs completed by trainees has come from their dissemination across a range of channels, including presentations at national and international conferences and publication in peer-reviewed journals. This suggests that, while the findings of some SEPs were specific to the service that commissioned the evaluation, the pragmatic nature of SEPs is important to other services more broadly.

Limitations

This study relies on commissioners' recall about the impact of SEPs. It is possible that this biased the results; perhaps those SEPs that had an impact were brought to mind in more detail than those that did not have an impact. If this were the case, the findings here may be an inflation of the 'true' impact that SEPs have had. To limit the influence of biased recall, commissioners who had completed SEPs more recently were also interviewed. Moreover, there was a spread in terms of the magnitude of change described by commissioners, including some relatively small changes that had occurred as a result of the SEP. With this in mind, it seems that recall bias did not overly impact the feedback regarding SEPs.

As with many forms of qualitative research, the sample size is relatively small. It is important to bear this in mind when generalising the findings of this evaluation to all SEPs. It may well be that different themes would have been identified had more commissioners been interviewed. In an attempt to mitigate this limitation, the selection of commissioners was intended to ensure that the sample was varied across a number of domains such as clinical specialty, number and date of SEP commission. Despite this, the themes identified should be regarded as indicative rather than representative.

Finally, interviews were held only with commissioners. Arguably, hearing the experiences of trainees who have completed SEPs would have been a valuable addition to this study. The decision to interview only commissioners was taken because trainees rarely have much contact with services once they have completed their SEPs and so it was thought that commissioners would be best placed to discuss the impact. Having said this, future research investigating the experiences and perspectives of trainees who have completed SEPs regarding skill development would be a valuable addition to the growing literature on the application of practice-based education strategies for healthcare professionals.

Conclusion

Service evaluation projects completed by trainee clinical psychologists can add real value to real-world services, when approached with a practice-based education ethos. This pedagogical approach simultaneously meets the need for healthcare services to evaluate their work, and for healthcare professionals to develop skills in service evaluation. Moreover, the process of completing service evaluation projects contributes to a community of practice between trainees, clinicians and academics who are committed to building an evidence-based service improvement culture.

Acknowledgements

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