

BMJ Open Sustained benefits of a generalist training programme for UK doctors: a survey-based follow-up study

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ABSTRACT

Objectives The study aimed to conduct a follow-up of all broad-based training (BBT) trainees who participated in the original evaluation completed in 2017. The follow-up study explored the impact of BBT on career decisions, sustained benefits and unintended disadvantages of the programme, and views on the future of training.

Design Scoping interviews informed the design of an online survey. The interview transcripts were analysed thematically. The survey was piloted with six volunteers and sent out to all former BBT trainees. Data from the survey were transferred to Excel and SPSS for analysis. The open-text comments on the survey were subject to a thematic content analysis.

Setting Participants were working in general practice, paediatrics, psychiatry or medicine.

Participants Eight former BBT trainees participated in the scoping interviews. Interview participants were selected to ensure a diversity of current specialties and to represent all three BBT cohorts. All former BBT trainees were invited to complete the survey (n=118) and 70 replied.

Results The benefits of BBT were sustained over time: participants were confident in their career decisions, took a holistic approach to care and capitalised on their experiences in other specialties in their current roles. A minority of trainees also experienced temporary challenges when they joined a specialty training programme after completing the BBT. Whatever their specialty, experience in core medicine, paediatrics, psychiatry and general practice was valued. Disadvantages were short-lived (catching up on transition specialty training) or affected a minority (impact on sense of belonging).

Conclusions The BBT programme supported the development of generalist doctors. Greater attention needs to be given to training secondary care doctors who take a holistic view of the patient and navigate their specialist care.

INTRODUCTION

Developing generalist doctors, many of whom are destined for work in the secondary care system, is recognised as an important means of addressing changing patient demographics, notably an ageing population and increased comorbidities, which intensify the pressures on the health service.^{1 2} A UK response to this global challenge, acutely experienced in western nations, was the introduction

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Survey issued to all trainees on the broad-based training programme, including to those in the first cohort (who completed broad-based training in 2015).
- ⇒ Limited use of inferential statistical analysis.
- ⇒ Survey design informed by interviews with a diverse sample of doctors who followed the programme (n=8) and piloted with a further six.
- ⇒ A wealth of free-text responses to survey questions complemented the transcription data from interviews.

a new training programme for generalist doctors. The broad-based training (BBT) programme promoted the development of doctors with a more rounded approach to patient care by providing 6-month training in each of four specialties: paediatrics, psychiatry, general medicine and general practice. On completing BBT, the trainees joined the second year of specialty training in one of those specialties.

The Academy of Medical Royal Colleges Specialty Training Committee developed the 2-year BBT programme, which followed the 2-year foundation training for UK doctors. The aims, as stated in the original curriculum for the broad-based programme devised in 2012³ and reflected in the 2021 curriculum document,⁴ were to develop practitioners: with a wider, more holistic perspective on healthcare; adept at managing complex patient presentations; with understanding of specialty integration; well equipped to progress successfully to the second year of core or specialty training (CT2/ST2); with conviction in their career pathway; for under subscribed or expanding specialties and who adopt patient-focused care. These aims reveal the reasoning behind the introduction of the programme: recognition of the increasing occurrence of complex, multi-morbid patients, specialty silos and a desire to improve cross-specialty understanding and



the need to boost the number of doctors in the four BBT specialties. The broad-based nature of the programme was expected to have wide appeal but by extending the time-period trainees have for making their specialty choice, it was seen as being of particular interest to those uncertain of their career pathway. It fitted with the themes from the Shape of Training Review,⁵ which included a move towards broader-based general training for the first 4 or 5 years and longer placements that support enhanced relationships with clinical teams.

Researchers at Cardiff University completed a 3-year evaluation of the BBT programme in 2017.⁶⁻¹¹ Key conclusions were that the BBT programme developed trainees who adopted holistic, patient-centred approaches to care, who were able to manage patients with complex presentations and who had conviction in their choice of career.⁶ It encouraged a wider perspective on healthcare and promoted specialty integration. After three cohorts of trainees had followed the programme, it was withdrawn. In the authors' view, this was largely for political reasons and unfounded concern that it detracted recruitment from the GP (General Practice) training programme. Although the BBT programme subsequently ceased, the generalist agenda has only increased in prominence^{12 13} and to meet the needs of tomorrow's patients the medical workforce needs to be equipped with generalist skills.¹⁴

The purpose of this study was to conduct a survey-based follow-up of all BBT trainees who participated in the original evaluation. The intention was to explore four primary research questions:

- ▶ What is the current role (specialty, career stage) of the former BBT trainees and how do participants describe the influence of BBT on career decisions and career conviction?
- ▶ To what extent were the benefits identified in the original BBT evaluation sustained?
- ▶ What disadvantages or unintended consequences of the BBT experience do participants identify?
- ▶ How do participants view the future of generalism in the health service and implications for training?

METHODS

The study was underpinned by a mixed-methods design combining scoping interviews and a survey. In the scoping interviews, we asked participants about their career development after completing BBT and their views on the impacts (both positive and negative) of BBT (see online supplemental file 1). We began with open questions (eg, in what ways do you think BBT influenced on your career decisions?), then probed about the findings of the original BBT evaluation, and finished with asking for suggestions for the survey questions.

Participants for the scoping interviews were recruited via an email to all 133 email addresses on our mailing list (representing 121 unique individuals as we had an alternative email address for a few). The message, sent on 19 May 2021, alerted them to this follow-up study and indicated our plan to undertake a small number of scoping

interviews that would be used to inform the development of the questionnaire.¹⁵ Thirty-six swiftly volunteered to be interviewed, exceeding our expectations and capacity to conduct interviews.

We invited nine to be interviewed, across the three cohorts of BBT trainees and purposively sampled to reflect diversity in terms of gender and current specialty. Of the nine invited for interview, eight participated in one-off semistructured interviews. The interviews were shared between AB (seven interviews) and DC (one interview). Both researchers are female. AB was professor of medical and dental education with over 25 experience of research medical education and DC was a research associate in medical and dental education with 2 years of postdoctoral experience. Following completion of consent forms, these one-to-one scoping interviews were held online (via MS Teams), audiorecorded and transcribed verbatim. The interviews lasted between 30 and 40 min. DC conducted a thematic analysis using NVivo^{16 17} and discussed the emerging coding scheme and findings with AB. Being a follow-up study, most of the codes were *a priori* and reflected the main findings of the original study and the research questions. They were grouped under three main headings, benefits, drawbacks and views on the future of doctor training. In addition, there were also emergent codes relating to the long-term impacts of the BBT programme, which were unknown at the time of the original study. As these were scoping interviews, data saturation was not discussed. The participants did not comment on the transcripts or the findings.

Using our analysis of the interviews, we converted common answers into response options for the closed questions where possible and included some free-text open questions (see online supplemental file 2). The topics covered in the survey closely mirror those covered in the interviews. We piloted the survey with 6 of the original 36 volunteers and subsequently made minor changes, such as reordering the questions, rephrasing one question and adding additional response options (such as 'other'). The survey carried information and a consent question on the first page. The final survey was distributed via email to all former BBT trainees who undertook the training in England and who had responded to our earlier evaluations (n=121). On the evidence of bounce back emails, it reached 118 discrete individuals. The survey was distributed on 2 August 2021 and following two reminders, closed at the end of September 2021. Data from the survey were transferred to Excel and SPSS (version 27) for analysis. The open-text comments on the survey were subject to a thematic content analysis¹⁸ drawing on the coding scheme developed for the scoping interviews.

The aim of the study was explained to participants before the interview and stated at the beginning of the survey. As research lead for the original BBT evaluation, AB had met most of the trainees who took part in the original evaluation study through attendance at national

Table 1 Current speciality and career stage

	Current speciality	Career stage
Interviewee 1	General Practice	ST4
Interviewee 2	Psychiatry	ST5
Interviewee 3	Community paediatrics	ST5
Interviewee 4	Neurology	ST5
Interviewee 5	Palliative medicine	ST5
Interviewee 6	General Practice	Qualified GP
Interviewee 7	General Practice	Qualified GP
Interviewee 8	General Practice	Qualified GP

meetings of the BBT trainees and had access to their consent and email contact details.

Patient and public involvement

No patient is involved.

RESULTS

Demographics

The primary purpose of the scoping interviews was to inform the questionnaire design. However, they also provided valuable insights into the experiences of the BBT alumni, complementing the findings of the online survey. We spoke to two men and six women; one from the 2013 cohort, three from the 2014 and four from the 2015 cohort. The interviewees were working in a range of specialties, with half based in general practice. Further details of specialties and career stage are given in [table 1](#). Several participants told us about career breaks and part-time studies, with some mentioning teaching or academic fellowships, which added to the diversity of the sample.

We received 70 survey responses from the three cohorts of doctors who started BBT between 2013 and 2015 (59% response rate). [Table 2](#) shows how the sample was spread across the three BBT cohorts.

We anticipate that the response rate was affected by a number of factors including the outdated nature of the email addresses, potential changes in careers for some who may have left the health service and the pressures on doctors arising from the pandemic which was occurring at the time of the online survey.

Fifty-five respondents (79%) identified as female. From September 2021, 64% were working part time as a doctor and a further 14% planned to go part time in

the next 3 years. About 60% had taken some form of extended leave from training (eg, for maternity or time out-of-programme). Just over half (54%) were working in general practice, 16% in paediatrics, 11% in psychiatry, 7% in medicine and 6% in other specialties. Most (81%) reported that they had remained in their chosen BBT speciality; and, at the time of the survey, 41% had completed speciality training.

Respondents were asked if they had pursued any additional roles alongside their main clinical role. Sixty-one respondents answered the question; about one-third (36%, n=22) indicated that they had not pursued an additional role. However, near half (46%, n=28) had pursued one further role with 9 (15%) indicating two additional roles and 4 (7%) indicating three further roles. A teaching role was most common (49%), followed by management related roles (23%).

Benefits

All survey respondents were invited to react to a series of statements about the long-term benefits of their BBT training. These were rated on a 7-point scale from strongly disagree to strongly agree. In addition, an open-text box was provided for further comments on the benefits of BBT. The most common benefits noted in the open comments (from 34 respondents) related to the value of additional experience, understanding of other specialties, more informed career decisions and the development of a more holistic approach to care. A thematic summary is provided in [table 3](#). A number of respondents made multiple points. The percentages given in the table are of the total number of respondents providing open comments (n=34). We use this summary of benefits to structure the presentation of benefits, adding insights from the closed survey questions and the interviews.

The value of additional experience

Almost half of the respondents expressed an appreciation for the ‘additional experience’ they gained through the BBT programme. Such comments referred to the value of ‘variety of experiences’ and how ‘longer training equals more varied valuable experience’. One trainee wrote ‘really valuable experience that has stayed with me’. Although these comments do not specify which aspects of the programme were valued, they clearly indicate trainees’ enthusiasm.

Table 2 BBT cohort

To which BBT cohort do you belong?	Responses	As % of total participants	Potential participants	Response rate
2013–2015	17	24	35	49
2014–2016	18	26	24	75
2015–2017	35	50	59	59
Total	70	100	118	59

BBT, broad-based training.

Table 3 BBT benefits: thematic summary of open comments

The benefits of BBT	Responses (n 34)
The value of additional experience	15 (47%)
More informed career decisions	13 (41%)
Understanding other specialties	7 (22%)
A more holistic approach to care	6 (19%)
Other	5 (16%)

BBT, broad-based training.

More informed career decisions

Those who highlighted a specific aspect of the programme most often spoke of how they were able to make more informed career decisions. Such comments indicated that the BBT programme had allowed them 'to explore all [their] potential options really thoroughly' and some suggested they might otherwise have made 'wrong' decisions and even left training: 'I think it played a key role in keeping me in the profession'. Responses to other questions on the survey revealed that over 90% thought that BBT influenced their career choices, leaving them confident in their decisions, and 62% indicated that BBT had influenced their decisions 'very much so' and a further 29% 'to some extent'. Almost all (94%) agreed that BBT significantly helped them make the right career decisions; the mode response was agree (n=27, 39%).

All the former BBT trainees who took part in the scoping interviews told us that the BBT programme had informed their choice of career. Several reported starting the programme thinking they wanted to pursue one specialty, only to change their minds after experiencing some of the placements. Others were undecided at the start and appreciated the opportunity to reflect on their options and gain further experience which they used to inform their decision. Many saw the BBT as an opportunity for reflection and career planning, and several interviewees shared stories about how the BBT programme changed their preferences and the course of their career.

Understanding other specialties

All participants agreed (with about two-thirds strongly agreeing) that the long-term benefits of their BBT training included being able to: 'see things from the other side of the primary/secondary care "divide"' and 'understand the pressures faced by doctors working in other specialties'. The free-text comments provided further support for this finding: '(BBT) has informed how I interact with other specialties and given me insights that I would not otherwise have had'; 'BBT helped shaped my view of clinical practice, and bridged my understanding of how different settings (eg, inpatient, outpatient, community) worked together'.

Those who took part in the scoping interviews made similar observations. Those in specialist fields, for example, neurology, stressed the importance of working together

with professionals in other specialties. These specialists thought that having experience in other specialties gave them unique insight and facilitated working with other professionals.

My broader experience really helped because compared to my peers who have just done adult medicine I've got a little bit more insight to paediatrics aspects. (Interviewee 4, neurology)

Several interviewees talked about the importance of understanding how other specialties work, and what is feasible within them, especially across the primary-secondary care interface. The comment from a paediatrician interviewed provides detail on the value of the insights gained from experience in other specialties:

[BBT] has been useful. (...) I did six months of inpatient psychiatry, and I still do use parts of that in a day-to-day job. (...) I think I'm maybe a little bit more understanding than maybe some of my other colleagues as to the kind of referrals and things you get. Just appreciating how, you know, the stuff that we ask GPs to do, for example, it impacts on their work. So being realistic about how we can work together and not just assuming that some people are capable of doing certain things. (Interviewee 3, community paediatrics)

A more holistic approach

Illustrative comments about the development of a more holistic approach to care include specific reference to developing 'skills to become a holistic doctor' as well as the development of a 'patient-focused approach'. Almost all survey respondents (97%) agreed that they have a broad perspective on patient care rather than simply focused on their specialty remit. The mode response was strongly agree (n=38, 54%). This theme was also highlighted by those who took part in the scoping interviews; they noted that they developed a more holistic perspective, which they found particularly helpful when working with complex patients. All the participants interviewed gave examples of how they put a holistic perspective into practice in their current roles.

That's what you do every day as a GP. You're always, kind of, thinking 'oh this is paed', 'it's psychiatry' or 'it's haematology'. (Interviewee 8, GP)

Other benefits identified included making links with colleagues in other specialties (51% agreed that BBT gave them long lasting contacts in other specialties) and being 'prepared for anything'. Overall, almost all participants had no regrets about doing BBT. For the two who did indicate regrets, these concerned location, not the programme. Respondents thought that BBT had given them a long-term advantage over their current peers (81% indicated agreement; the mode response was agree, n=25, 36%) and all respondents agreed that

experience gained during BBT still informs their work as a doctor (the mode response was strongly agree, $n=42$, 60%).

Drawbacks

The survey also provided opportunity for the respondents to indicate drawbacks of their BBT training. Their views on drawbacks were explored through a combination of closed questions (where respondents indicated levels of agreement on a 7-point scale) and free-text comment boxes. The level of agreement with these statements was notably lower than ratings of benefit statements. We identified challenges related to transitioning out of the BBT programme, long-term effects, and issues surrounding identity and belonging.

Transitioning from BBT: short-term challenges

The free-text responses noted that BBT provided less experience in the chosen specialty. Such comments were nearly always followed by a comment stating that this was not a long-lasting drawback. Comments referred to 'a steep learning curve in the first couple of months' followed by reference to this being a temporary disadvantage: 'now I'm further along in my career I don't think there is any negative impact in comparison to my peers'. Similarly, another commented:

You don't have the same experience as peers early on but longer term you catch up and have extra/other skills to offer.

Two of the statements in the closed questions related to the transition period: 24% of respondents agreed that the transition to CT2/ST2 was challenging, with the mode response being disagree ($n=25$, 37%). Furthermore, 19% of respondents agreed that they had to do a lot of catching up due to missing CT1/ST1. The mode response for this statement was also disagree ($n=26$, 38%).

In the interviews those who became GPs described a relatively smooth transition but some who exited into other specialties faced issues with successfully passing exams and getting competencies signed off in a shorter time span than their colleagues who had not done BBT. Specific reference was made to the challenge of the transition into the second year of core medical training where some noted difficulties in 'catching up' after completing BBT.

Sense of belonging

A notable disadvantage raised in open comments was about not feeling part of a cohort of trainees when joining at ST2/CT2. Sense of belonging is about feeling a part of things, as a member of a group, something seen as essential to an identification with that group¹⁹ and three aspects of belongingness have been identified: connectedness, affiliation and companionship.²⁰ For some trainees, feelings of not belonging to a cohort passed while for others it persisted:

Not starting at the same time as the rest of my cohort did mean that I didn't know all my peers in the same way as others did, although quickly got to know them.

I did feel a bit on my own doing BBT. We went along to specialty teaching but I did feel a bit like an outsider. Then even when I joined GP training, as I hadn't started with the rest of the cohort, this feeling persisted.

Not belonging to a core group of trainees was identified as a disadvantage by those we interviewed. It left some feeling isolated in hospitals where few BBT trainees worked, and at risk of loneliness.

It sometimes felt like you didn't have your little tribe because everyone sort of identified doctors as their groups of trainees. We were just, sort of, our own little thing and obviously there wasn't very many of us in a hospital. So it could be tricky sometimes. (Interview 3, community paediatrics).

However, the survey responses indicate that this issue was not widespread among BBT trainees. Relatively few (21%) agreed that they missed out as a result of not being part of a specialty trainee cohort (the mode for this statement was strongly disagree, $n=23$, 33%). Conversely, 59% of respondents agreed that they still feel part of a special BBT group (mode for this statement was strongly agree, $n=18$, 26%); and 51% said that they are still in touch with colleagues from BBT (equal numbers of respondents chose disagree and strongly agree, $n=14$, 20%).

Lasting effects on progression?

We also examined whether BBT had any unintended lasting disadvantages. A third of respondents agreed that at times, they felt anxious about their own performance in relation to peers after BBT. The mode response to this statement was disagree ($n=21$, 31%). However, only 11% of respondents agreed that they still feel less experienced than their peers because of missing CT1/ST1 (mode response was strongly disagree, $n=32$, 47%) and just one respondent agreed that doing BBT had a long-term negative impact on their career progression (mode response was strongly disagree, $n=44$, 63%).

Views on the future of training

The survey included a set of statements about the future of training. All agreed (with about two-thirds strongly agreeing) that 'GPs should be expected to experience training in the BBT specialties (paediatrics, psychiatry, core medical)'. This perspective was endorsed by those we interviewed where there was thought that the BBT programme was ideal for future GPs because it guaranteed placements in core specialties beneficial to the work of doctors in primary care. As a corollary, at least 94% agreed that those working in secondary care should experience training in general practice. Similar proportions of survey respondents also agreed that doctor training should include greater opportunity for cross-specialty



case-based discussions and also that training should aim to reduce the gap between care for physical and mental health. These views were elaborated in open comments where one common theme related to better communication, collaboration and understanding across specialties, across primary/secondary care and across physical/mental health.

Those in scoping interviews spoke of not specialising too early and the importance of the generalist role in secondary care—doctors who are able to take a holistic view of the patient and work in partnership with specialists to negotiate the right care for complex, multimorbid patients. This was echoed in free-text comments on the survey: ‘once people get to a certain level of complexity, there needs to be somebody in secondary care holding the reins, getting the information and helping to collate that for patients’. Survey respondents expressed regret that the BBT programme is no longer available: ‘This is a fantastic programme and it is such a shame it was axed. So many juniors tell me they would consider something like BBT if it still existed’.

Discussion

We recognise limitations to our study. In summarising and discussing the findings, we note that shy of half the total number of trainees from the first cohort (who completed BBT in 2015) returned the survey. That said, across the cohorts (which included a response rate of 75% from the second cohort) there was a board level of consensus in response to questions. This enabled us to distill messages from the data but limited our scope for inferential statistical analysis.

This follow-up study provides clear evidence that the benefits of BBT that were expressed by participants when on the programme were sustained over time. Among these are the positive influence of BBT on career decisions, the value of additional experience, the insight into other specialties, and the development of a more holistic approach to care. By returning to the original cohorts of BBT trainees, the evidence shows that the perceived benefits align well with the intended goals of the programme and were sustained over time.

On successful completion of BBT, the trainees joined one of the four BBT specialties. The specialty pathway was determined by the trainee mid-way through BBT. In recognition of their 2 years of training across four specialties, they joined the second year of specialty/core training. This created a difficulty for some of the participants. Chief among the disadvantages was the temporary challenge of catching up at ST2/CT2 and not starting specialty training with a cohort of peers and this impacted on sense of belonging.

The advantages were widespread among the cohort, whereas the disadvantages were short-lived or affected only a minority of the trainees. That said, having an underdeveloped sense of belonging can negatively impact on mental health and ‘fitting in’ can be a protective factor that enhances well-being, something that is essential to

those working in high pressured occupations such as medicine.²¹

In terms of future training, these respondents recognised that training in core medicine, paediatrics and psychiatry is particularly valuable for GPs, but they also saw the worth of experience in general practice for those destined for a career in a hospital-based specialty. There was widespread support for BBT as a means of breaking down potential divides between specialties, between primary and secondary care and across physical and mental health. The BBT programme was not designed to favour any one of the four specialties in the programme over any other. Indeed, the proportions pursuing each of the specialties broadly reflected the distribution of doctors in those specialties. The proportion of the survey respondents who were GPs (54%) compared favourability with destinations data from foundation year 2 (F2) which showed 32% were appointed to a GP training programme in 2019, a figure steadily declining year-on-year from 2012.²² The evidence from our survey further diminishes the concern that BBT would negatively impact on recruitment to general practice.

CONCLUSION

The participants in this study felt privileged to have experienced BBT and were saddened that it was no longer available. It is our view that those who organise the training of junior doctors should give more consideration to programmes that support the development of generalists, doctors based in secondary care who can adopt a more holistic approach and work with others to navigate the care needs of complex patients.

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Contributors AB: conceptualisation; data curation; formal analysis; funding acquisition; investigation; methodology; supervision; validation; writing—original draft; writing—review and editing; guarantor. DC: data curation; formal analysis; investigation; methodology; validation; writing—original draft; writing—review and editing.

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Competing interests None declared.

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Patient consent for publication Not applicable.

Ethics approval This study involves human participants and was approved by Cardiff University SOCSI SREC7 May 2021; ref: SREC/4143. Participants gave informed consent to participate in the study before taking part.

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