

EST 1892

**London
South Bank
University**

**School of
Health and
Social Care**

Longitudinal Study of the Impact of the London Darzi Fellowship Programmes Years 1 - 8

November 2017

Prof Becky Malby and Dr Kieran Mervyn (LSBU) in partnership
with Dr Georgina Meredith, Darzi Alumni Network.

Contact: Prof Rebecca Malby, School Health and Social Care | London
South Bank University | 103 Borough Road, London, SE1 0AA | e:
r.malby@lsbu.ac.uk

Contents

Introduction	4
Evaluation method	4
Summary of Findings	5
Careers post-Darzi	5
Change Management and Leadership	5
Leadership Skills	6
The Impact in London	6
Continued Leadership Learning Post Darzi	7
Key Findings	8
1 Demographics & Career Trajectory	9
1.1 Gender	9
1.2 Cohort by Darzi Year	9
1.3 Career Trajectory – Post Darzi	10
1.4 Leadership Posts with Quality Role	10
1.4.1 Clinical Leadership Post with Quality Role	10
1.4.2 Strategic Roles	10
1.4.3 Continued Clinical Training and Development	12
1.4.4 Clinical Roles	12
1.4.5 Teaching Roles + Further Education	13
1.4.6 Leading Quality	13
2 Difference to thinking and practice since completing Darzi	14
2.1 Systems Thinkers for Systems Change	14
2.2 Competencies, Meta-Competencies & EI	16
2.3 Relationships and Networks	18
2.4 Project Management (Technical) Skills	19
3 Design Principles: The Theory	19
4 Creating Innovative Work-Practices	21
5 Applying + experimenting with Darzi learning	22
5.1 Applying Project Management Tools and Techniques	22
5.2 Embracing the Opportunity to be Innovative	23
5.3 Strategic Thinking	24
5.4 Cross-System Collaboration	25
5.5 Leading teams	25
6 Surprise about learning since participating	26
6.1 Self-realisation	26
6.2 Personal Development and Resilience	27
6.3 Cohorts and Networks	27
6.4 The Scale of Change	27
7 Darzi experience-related accomplishments of which particularly proud?	28
8 Development as a Leader (7-point Likert)	29
9 Making a Difference to Healthcare in London	30
9.1 Fellows' Personal Development	31
9.2 Improved Services	31
9.3 Leading and Leadership	32
9.4 The Power of the Network	33

10	Influence of Darzi Network in London	34
	10.1 The Value of the Network	34
	10.2 Support via the Network	34
11	Putting change leadership skills to good use	35
	11.1 Examples of Collaboration to Secure Change	35
	11.2 Ways Fellows are Working to Secure Change	36
12	Interacting with Other Leadership Improvement Networks	37
13	Learnings Leading to Effective Leadership Practice in London	38
14	Conclusions	38
	14.1 Recommendations	39
	Appendices	40

Introduction

This report is based on a retrospective evaluation of the Darzi Fellows in Clinical Leadership Programme, supporting multidisciplinary clinicians and allied healthcare professionals (AHPs) in project-based attachments to NHS organisations across London. The Darzi Alumni and London South Bank University collaborated to develop a longer-term review of the impact of the Darzi programme (currently in Cohort 9). This evaluation complements the in-programme evaluations of each cohort demonstrating the immediate success of eight previous cohorts of ‘Darzi’ Fellowships in London. The fellowship combines a work-based change project and a Leadership Development Programme incorporating a Post Graduate Certificate over the course of a year.

Darzi evaluation reports were undertaken for every cohort (1-8); however, much less was known about the Fellows’ working-life and careers post-Darzi. In September 2017, Darzi Fellows were subsequently invited to participate in a web-based online survey on the impacts and influences of the Darzi Fellowship programme since its introduction in 2009 by NHS London and the London Deanery. The objective of this longitudinal study was to ascertain whether, and the extent to which, the London Darzi Fellowship Programme developed and supported clinical leaders to meet the ambitions of the Darzi Review as specified in the ‘High-Quality Care for All’ report (Darzi, 2008)¹ and the continuing ambitions of the NHS in London to secure effective clinical leadership. The investment in London’s clinical leaders continues, with the London Health Education England local teams (North Central and East London, North West London, South London) supporting a current 9th cohort of Darzi Fellowships in Clinical Leadership for the current 2017/2018 academic year. The Darzi programme is even more important considering the recent review by Wachter (2016) which highlights how the NHS in England continues to lack clinicians with the necessary skills in healthcare improvement and redesign of care².

This longitudinal study demonstrates that overall there is much evidence that the Darzi programme has practically and intuitively shown Fellows how to think first and then act differently for alternative outcomes. Fellows are much more proactive than reactive because of the programme. Many responses carried a central message of empowered, enlightened and highly skilled individuals who are actively and uniquely challenging the status quo. Thus, there is clear evidence that the Darzi programme has created a plethora of systems thinkers and doers, with a greater understanding of how to use data to bring about system change. A picture emerged of often bold individuals with a determination to actively instigate change across London and beyond. There is evidence that many Fellows are emerging as leaders, acting as catalysts for sustainable change in the healthcare environment. By any reasonable measurement, the Darzi programme continues to be successful with learning and behavioural change sustained after the Fellowship year.

Evaluation method

The authors began this Longitudinal Evaluation by reviewing the core documentation and available reports developed across the cohorts from Darzi 1 (year 1) to Darzi 8 (year 8) (pre, mid and end-point). This review helped to expose the highlights, key insights and challenges, to understand the evolving nature of the programme and to ascertain how objectives and

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228836/7432.pdf

² Wachter’s (2016) report commissioned by the secretary of state for health, made recommendations to hasten the introduction and utilisation of health information and communication systems. At the heart of this was engaging and training the workforce, especially clinicians. See: <https://www.digitalhealth.net/2016/09/wachter-strategic-investment-in-clinical-leaders-is-vital>

outcomes were changing across the cohorts. This history became the basis for the second stage, the development and administration of a web-based survey of the members of the earlier Darzi Fellowship programmes. The survey for the longitudinal evaluation (Darzi 1-8), provided a rich, representative view of the programme.

A current-nested, mixed methods approach underpinned the study giving priority to one of the methods (Qualitative) guiding the project, while embedding or 'nesting' (see Section 8, Development as a Leader) the quantitative element. This mixed-methods approach helped to illuminate what worked in what circumstances and for whom in the development of clinical leaders and the application of their skills and knowledge-base over the years. It also illuminated the relationship between the London Darzi Fellowship programme and the evolution of the stakeholders vision. The purpose of the nested design was to seek information from different levels. The authors administered the survey to 236 Fellows across Darzi 1 to Darzi 8 based on current records of those that completed the programme, and this was returned by 80 Fellows (n=80). This sample represents a response rate of 34% and is the first Darzi longitudinal study undertaken. There are no known longitudinal surveys on Clinical Leaders programmes for comparison. Overall, the data for this report provides a robust spread of opinion and views. In noting any bias in the responses, we can hypothesise that the one third who responded could be the most enthusiastic.

Summary of Findings

The evaluation findings set out in this longitudinal report represent a high level of success in achieving the initial and evolving objectives of the programme. This report illustrates many reliable indicators of the significant worth of the endeavour. The programme has instilled a deep understanding of the realities of clinical leadership and how the health economy is changing, and the Fellows' leadership capabilities invariably tend to match these realities and changes.

Careers post-Darzi

The Fellows were up skilled through the programme and able to follow career trajectories (Section One 1.3 Career Trajectory – Post Darzi) encompassing strategic roles, consultancy positions and for some, returning to more advanced clinical responsibilities. Others stepped into a myriad of project management roles post-Darzi, continued training and development or undertook medical teaching roles. Shifts into non-clinical roles were also noted. The Fellows were well prepared for career fast-tracking as a result of participating in the programme. Their development is increasingly recognised within the workplace and many are undertaking more senior responsibilities within the NHS because of the programme.

Change Management and Leadership

The respondents had observed a significant difference in their thinking and practice (Section 2). The report is replete with evidence and quotations which illustrate how the fellows have grown and developed as relational, emotionally intelligent, reflective, technically literate and empowered change agents, with a real appetite to bringing about systems change (See Section 2.1 & 2.4). Fellows have a broad appreciation of change management tools and techniques and are actively involved in the designing and implementing of interventions with other fellows to secure change (See also Sections 11.1 & 11.2). The report highlighted a range of Darzi-based competencies and meta-competencies (2.2), together with examples of relationship building above and below their current positions (2.3). There was also much recognition for network working and increasing use of networks as an alternative structure for addressing wicked problems. However, only 51% were

currently interacting with other leadership and improvement networks (See Recommendations in Section 14).

A plethora of design principles were captured in a mind-map (See Figure 1, Application of Design Theory and Approaches), which illustrates the diverse and innovative nature of the programme theory and how that is being translated into practice. The programmes objectives are also being met through the high percentage of respondents (74%) who were able to create innovative practices and procedures in their work as a result of the programme (See Section 4).

Section 5 denotes how Fellows are applying and experimenting with the Darzi learning and theory. This is encapsulated through the application of project management tools and techniques (5.1) and strategic thinking (5.3), through to the manner in which they are embracing opportunities to be innovative (5.2); undertaking cross-system collaboration (5.4) and leading teams (5.5).

Section 6 revealed insights into what most surprised the fellows about learning since participating in the programme. Most significant responses encompassed aspects of self-realisation (6.1), and personal change and empowerment (6.2). The Fellows were initially overwhelmed by the size and complexity of the task and the sensitivities involved in enacting change when surrounded by stilted systems, processes and personalities. But there was gratitude for the Darzi Fellowship for illustrating the problems and providing a vehicle and tools to follow through with change (6.4). Further insights into the power of and opportunities within networks (6.3) emerged.

In Section 7, 76 Fellows responded to the question on Darzi experience-related accomplishments of which they are particularly proud. 63% of respondents confirmed that they had, while a further 25% claimed to be unsure. 12% did not seem to have any Darzi experience-related accomplishments. A range of important accomplishments was listed, ranging from relatively small-scale to higher-level. Also, 68% of respondents somewhat agreed, agreed or strongly agreed that they were leaders who had made an impact on health care through the delivery of real change. Hence, there was broad recognition of having developed enhanced leadership, technical and psycho-social skills, amongst others.

Leadership Skills

Fellows responded favourably to the Likert scale questions on their own leadership development (Section 8). Most tended to Somewhat Agree, Agree or Strongly Agree based on items adapted from Wasko and Faraj (2005). (Items were measured on a 7-point Likert-type scale (Strongly Disagree, Disagree, Somewhat Disagree, Neither Agree nor Disagree, Somewhat Agree, Agree, Strongly Agree)). For instance, the Fellows rated “[I am a] Leader who is transparent and realises the importance of shared and distributed approach to leadership.” as the highest (Mean = 5.87). The questions: “[I am a] Leader who has made an impact on health care through the delivery of real change”; and “Leader who effects change in multiple contexts and for multiple types of change work” were the least rated (Mean = 5).

The Impact in London

The Fellows vividly described the differences they had made to healthcare in London (Section 9). 67 responded to the question and described the impact and influences of their wide network of critical friends and alliances and explained the influence of the Darzi network for addressing complex challenges (Section 10).

There is much evidence that the Fellows have continued to use their change skills to benefit the NHS. For instance, in Section 11, 75% of respondents somewhat agreed, agreed or strongly agreed that they were putting their change leadership skills developed through the programme and the projects in London Darzi Fellowship year to good use. A similar response was made in relation to the question about their colleagues putting their change leadership skills developed through the programme and the projects in London Darzi Fellowship year, to good use. This illustrates a very strong recognition of the Darzi programme. In many respects, the Fellows are still leading change. Evidence from the career trajectory section outlines the extent to which they stand out from the crowd. Their advanced suite of competencies and meta-competencies coupled with bold determination to change the system, illustrates the type of clinical leader that the Darzi clinical leadership programme help to nurture and develop.

Section 12 then explores how fellows are interacting with other leadership and improvement networks, and Section 13 briefly highlights key Darzi learnings that have led to effective leadership practice in London.

Continued Leadership Learning Post Darzi

86% of respondents had not completed a leadership development programme, post-Darzi. This opens the possibility of Alumni ambassadors-type programmes whereby past Darzi's who excelled in their clinical or other careers, engage in future programmes as part of the future clinical leadership development process.

There were 11³ responses to the question about the type of leadership programme undertaken, since their Darzi studies. It is difficult to fathom why no more than 11 of the Fellows have taken follow-up Leadership Development programs. Of the 8 cohorts, only the first and sixth are not represented. 36% of the follow-up LD courses were taken by recent graduates (D7 and D8). One ex-Fellow referred to an unattributed programme 'Preparing to become a consultant'. Another was currently undertaking a course at Imperial College: Leadership in Complex Environments and a further ten respondents were as follows:

Table 1 Leadership Programmes Post-Darzi

MBA x2	MSc healthcare leadership at KCL	Emerging Leaders Programme (Lambeth)
Pfizer Oncology Leadership Course	Trust Established Leaders Programme	Urgent Care Fellowship
Dynamics leadership program	MSc healthcare leadership at KCL	NHS Leadership Academy – Elizabeth Garrett Anderson MSc programme

³ There were 11 responses, not 12. The 12th comment was from a Fellow who didn't remember which cohort she was a member of.

Perhaps one explanation is that the Darzi Fellowship has provided a sustainable suite of tools, techniques and knowledge; another that for some cohorts it is too soon to be looking for further development. However, this may over simplify things. Fellows may be equipped with the meta-competencies to foster a culture of improvement in quality, but a proactive rather than reactive approach to their on-going career and personal development is needed to ensure that the future provision of healthcare in London's NHS is to be safeguarded. Recent (Darzi 7-8) and older Fellows (Darzi 1-6) will need to build in the Darzi fellowship learning. Considering the significant tensions in London NHS, Bennis and Thomas (2002)⁴ would refer to the concept of 'crucibles' as opportunities that enable clinical leaders to evolve and rise to the top where others would perhaps fall. The challenge to Darzi funders and key stakeholders who operate within its complex structure is to ensure that a form of sustainable clinical leadership development ensues. Fellows from all cohorts will encounter challenges (internally and externally) and must have access to the headroom to adapt to the chaos and complexity of new innovations, new developments and adversities.

Key Findings

Section 14 summarises the key findings, insights and challenges from the study. Many positive impacts and influences have emerged, which reflect Lord Darzi's vision of creating a workforce capable of managing the present more effectively, whilst also securing strategic change and innovation in the broader sense around changes in clinical practice; looking at delivery models of care; and around systems leadership. The London ambition for clinical leadership is being realised as the programme continues to develop leaders who are positively influencing the culture and climate of NHS organisations, helping to enhance its performance and thus deliver improvements in patient care. With a focus on leadership that concerned teams, not simply individuals, there is evidence of greater clinical network development; more peer-2-peer learning, and growing focus on co-production, clinical engagement and system alignment. Overall, there was evidence of a current, high professional growth rate across the cohorts.

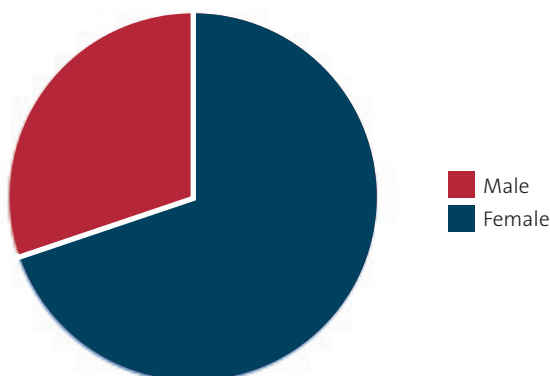
The 'economic value added' aspect might be difficult for HEE to measure in tangible terms after several years of investment, but much evidence suggests that significant social and likely monetary value is emanating from the programme. Most respondents to the survey applauded the programme, and there was scope for continued clinical leadership development as most Fellows had not undertaken any further leadership development post- Darzi.

⁴ See Bennis, W. & R. Thomas, (2002) 'Crucibles of Leadership', Harvard Business Review, 80 (9) pp.39-45.

1 Demographics and Career Trajectory

1.1 Gender

All but one responded to the question on gender. 55 (approximately 70%) were female, and 24 (approximately 30%) were male. One respondent left the question blank.



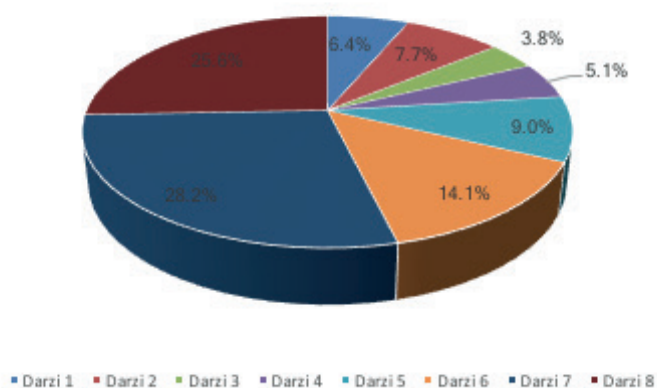
1.2 Cohort by Darzi Year

Approximately 77% of respondents emanated from Darzi 5 to 8 programmes, with the remaining 23% stemming from Darzi 1-4 programmes.

Taken Leadership programme

Darzi 1	6.4%	0
Darzi 2	7.7%	2
Darzi 3	3.8%	1
Darzi 4	5.1%	2
Darzi 5	9.0%	2
Darzi 6	14.1%	0
Darzi 7	28.2%	3
Darzi 8	25.6%	1

Darzi Cohort



1.3 Career Trajectory – Post Darzi

The Darzi programme has equipped Fellows with the skills and abilities to venture into a myriad of roles that include clinical, quality, organisational development and strategic leadership roles. The fellows are assertive individuals with an ability to multi-task and work in an organised way, often in different projects at the same time with little supervision. The findings point to an ability to communicate at a high level and put their various leadership skills into practice. They are clearly team players and leaders of teams, with high level communication and negotiation skills. Their ability to initiate, develop and implement strategic plans is also an emergent impact from the Darzi programme. The programme has also been credited with instilling patience and responsibility in the fellows, who are better able to handle stress and crisis. Considering the Darzi programme is less than 10 years old, relatively clinical leaders have emerged who have learnt from participation on the programme and in their respective host organisations and subsequent career journeys, and adapted accordingly. Notably those undertaking clinical careers are seeking to augment these with service development, quality, and strategic leadership responsibilities alongside their clinical work.

At this point in the longitudinal study (Section 1.4 below), we highlight career trajectories post-Darzi i.e. what sort of jobs did they undertake. Those who graduated as a Darzi Fellow and who remained within the NHS typically followed one of two career paths: Clinical posts (mostly at Consultant grade) and Organisational Development and Strategic leadership roles.

1.4 Leadership Posts with Quality Role

1.4.1 Clinical Leadership Post with Quality Role

Respondents vividly described their career trajectory, with 19 NVivo codes from doctors referring to gradually developed, Consultant roles in different organisational contexts post-Darzi. This included ex-Fellows in leadership roles, such as a Consultant in Acute Medicine who was also Clinical Lead for Ambulatory Care, and a Trust-based Consultant who was simultaneously a Training Programme Director. Another respondent was working in a Consultant post with an emphasis on leading service development. Others were either returning to training and development “Straight back into my training programme to become a consultant in my speciality”; or who went on to undertake wider leadership roles in the Royal College of General Practitioners (RCGP) and The National Institute for Health and Health Care Excellence (NICE).

1.4.2 Strategic Roles

The transition from clinical leadership to more strategic roles emerged as a common theme from the analysis and was articulated below in various ways. These included Directors to Service Specialists i.e. for NHS England.

Table 2 Strategic & Management Roles Post-Darzi

Head of integrated rehabilitation (across health	C and social care) chair HEE NCEL QI forum	Lead GP role / Deputy Medical Director
Band 8a for 6 months then moved to a Director band 8d post managing two large programmes.	Clinical role with managerial/ service lead responsibilities	Lead GP role / Deputy Medical Director
Chair of pan London RCGP trainee/first 5 committee, director local GP federation	Chief Pharmacist for clinical pharmacy services, governance and Medication Safety Officer	Lead Service Director, Acute Medicine
Clinical Lead for Diagnostics Redesign, Transforming Services Together	Clinical lead for HLP Transforming Primary Care programme. Clinical lead for primary care in Camden CCG	Governing body member for a CCG.
Improvement and development lead post for national teen pregnancy programme	Strategic role in GP service transformation	Strategic / Leadership roles in RCGP and NICE
Consultant Geriatrician and now Deputy Medical Director	NHS England Strategy Team [Strategy Programme Manager]	Clinical lead for quality improvement in central London mental health trust

The following quotations are used for illustrative purposes:

“Set up the GP Federations in Lambeth and became Director of the North Lambeth GP Federation. Was the IT Lead of the Prime Ministers Challenge Fund in Lambeth. Became a GP Partner of the Hurley Group”.

“Band 7 specialist pharmacist during Darzi. Band 8a - lead pharmacist post darzi for two years [and] currently band 8b Associate Chief Pharmacist for clinical pharmacy services, governance and Medication Safety Officer”.

“GP, designed post CCT scheme for GPs, got it funded, led the program and secured repeat funding. Designed community QI program, got it funded, led the program, had bookings from over 100 individuals in over 60 different community roles from nearly 50 different health, social care and voluntary sector organisations. Secured funding for continuation of this and have linked it to GP training. Now have role in GP service transformation”.

“I am now a salaried GP and governing body member for a CCG”.

“I went from being a ward sister to an improvement facilitator & then improvement lead”.

“Clinical Lead for Diagnostics Redesign, Transforming Services Together and practising GP”.

1.4.3 Continued Clinical Training and Development

Some Medical Fellows returning to practice had to complete their clinical training before taking up Consultant roles.

Table 3 CPD examples

Continued speciality training (geriatric)	Higher speciality training (psychiatry)	Training to be Consultant in Rehabilitation Medicine
Back to paediatric training. Now a specialist paediatric A&E trainee	Palliative Medicine Trainee	Specialty Dr. Registrar in training
Higher speciality training, with special interests including QI	Returned to training (as a doctor). 'Now looking to get my CCT and pursue a leadership career as a consultant'	Completed Specialty Registrar training; appointed to Consultant in Emergency Medicine post after awarded CCT
Continued in training in acute/emergency paediatrics, nil additional leadership roles during training but active involvement in QI at a local and national level.	Research for 2 years (MD). Completed clinical training	Returned to training. Now a consultant / Returned to medical training

"Completed GP training in London. Then had 2x kids and slightly lost to motherhood. Moved to Edinburgh and on GP retainer scheme. Working part-time and involved in Scottish LMC -retainer rep".

1.4.4 Clinical Roles

Table 4 Return to Clinical Roles

ST6 full-time clinical role	CCG Clinical Lead / NHS England Clinical	Ran an innovation group in my GP surgery
Salaried GP and Locum GP	Returned to clinical practice (part-time)	Clinical (hospital)
Continued with GP but still looking for management/public health roles	Clinical team lead	Clinical work as employee
Returned to clinical practice as a clinical nurse ⁵ manager in high secure service	'I continued to be employed by the CCG where I did my Darzi project and still work there as a Clinical Lead'	Band 7 charge nurse

⁵ A functional definition for 'Clinical' might include direct observation of a patient, or activity based on or characterised by observable and diagnosable symptoms.

The 'clinical lead nurse' has the responsibility for delivering an excellent standard of care – so she as a clinical lead is clinical

“Immediately post-Darzi I covered maternity leave for a Trauma Network Manager role for the North East London & Essex Trauma Network, followed by a second maternity cover for the same post this year. I split this role with covering the Service Manager vacancy for Trauma, Neurosciences and Stroke at the Royal London”.

“Returned to working as band 7 charge nurse within ED, searching for a career which will use skill and knowledge acquired during my time as a fellow”.

1.4.5 Teaching Roles + Further Education

Not all participants re-entered the clinical space, with some fellows opting for further education i.e. going on to do MSc/MBA degrees and PhDs, or moving into more advanced teaching roles such as teaching fellows at university, and senior lecturers in HEI. One respondent stated: *“[I’m a] a salaried GP and an appraiser as well as being involved in some teaching in local medical school, and interest in global health”.*

The following quotations are used for illustration purposes:

“Went on to be an IHI fellow in Cambridge, MA working on improving upstream maternal and infant health in Detroit, MI - Continuing as Faculty with IHI - Also completing clinical registrar teaching in paediatrics and currently in a paediatric public health role - Plan to CCT in general paediatrics with a specialist interest in maternal and child public health”.

“My Darzi Fellowship was at Royal Brompton Hospital in Sleep and Ventilation. As a result of the fellowship, I stayed on and completed an M Ed. I am now a consultant in the Trust and Training Programme Director”.

“After completing my Darzi fellowship, I was awarded a UK-USA University Partnership grant to spend time at a USA hospital. I spent 2 months at UCSF Hospital and observed surgical/pharmacy work processes with a focus on automated processes. I then returned to UK worked at Royal Free hospital part-time while undertaking a PhD. I was awarded my PhD this summer. I am now employed by the Royal Free working as a project manager on a Pharmacy Transformation Project focusing on a new Clinical Operating Care Model programme and Clinical Informatics”.

1.4.6 Leading Quality

Other respondents moved into Quality Leadership roles that were still connected with healthcare improvement work, including significant roles in quality assurance and improvement within care homes, and managerial leads for clinical simulation. One respondent stated: *“Stayed in my host CGG after the fellowship and piloted an ‘invest to safe’ care homes pharmacist project which then became a substantive post. Then worked as the pharmaceutical lead for an out of hours Drs service. Then left the NHS to work for the pharmaceutical industry as a health economist”.*

Seven respondents to this question highlighted their continued work on Darzi projects, some of which have continued into permanent roles and led to positions as senior project managers, and

others part-time. These included various improvement and transformation projects and another that was “...seconded to collaborative project with NHS trust, HEE and an advocacy organisation”. The following quotations are used for illustration purposes:

“I have been involved in a lot of project management related roles managing short-term transformational projects”.

“Now employed by the Royal Free working as a project manager on a Pharmacy Transformation Project focusing on a new Clinical Operating Care Model programme and Clinical Informatics”.

2 Difference to thinking and practice since completing Darzi

“Much greater awareness of the how the whole system affects people's health and an understanding of the need as well as possible methods for changing this. Has led to me looking for a role where I can affect change in a more profound way, looking beyond the acute sector”.

One of the foremost themes that emerged from the analysis was a focus on whole systems approaches to bring about systems change (Section 2.1). The Darzi programme was also praised for part of its emphasis on Co-Production, and respondents are actively pursuing ways to create more co-produced and asset-based approaches to health services in London. Other responses were directly or indirectly attributable to the concept of Relational Leadership (Section 2.2) and i.e. practising more compassionate leadership, coupled with a determination to rebel, rock boats for the cause by challenging authority and stilted practices in traditional, hierarchical organisational structures across London. Recognition and subsequent examples of power-sharing amongst citizens and professionals emerged based on reciprocity and equality. Differences in thinking and practice around networks and underlying power structures in the NHS have also emerged, with respondents voicing a greater appreciation for alternative organising designs and human relationships (Section 2.3). Underpinning this change in thinking and practice is a portfolio of project and change management tools and techniques garnered during the Darzi programme and which enable fellows to initiate, plan, execute, control and close projects with a good degree of confidence. These themes are discussed in detail immediately below.

2.1 Systems Thinkers for Systems Change

The limitations of conventional thinking and practice for addressing complex health and social-care problems were well noted, with further problems often ensuing from such traditional, top-down approaches. There is much evidence that the Darzi programme has practically and intuitively shown Fellows how to think first then act differently for alternative outcomes. The Fellows practice Whole Systems Thinking widely, and respondents are much more proactive rather than reactive because of the programme. Fellows illustrated a greater understanding of the premise of systems thinking and its underlying importance to their work in London. The fellows are actively incorporating systems thinking in different aspects of their work-lives, such as solving wicked problems, through to managing disturbances and decision-making, and beyond into strategic planning.

Over 50% of responses to Question 6 (differences to thinking and practice) referred (both explicitly and implicitly) to generating a better understanding of systems, and of systemic challenges i.e. “I understand the NHS structure and finance [challenges] far better than any of my peers. I see it as my responsibility to make change happen more than peers and many seniors”, and opportunities i.e. “To interact with health professionals of all types more freely than I did previously” and who increasingly see the ‘bigger picture’ such as in respect of their own role within the system and of the importance of service user involvement in change work, Co-Production and “...putting patients first”. This was encapsulated in quotations such as “More systems thinking, not just front-line thinking about one patient only”; “...speaking to patients [about] what Service they would like and hopefully in the future co-producing Services”.

Many responses carried a central message of empowered, enlightened and highly skilled individuals who are actively and uniquely challenging the status quo. Further changes to their thinking and practice encompassed an appetite for looking beyond narrow fragments i.e. “Much more strategic and wider system practice rather than just a clinician viewpoint”; “As a GP you can be very tunnel vision”, and understanding whole systems and their related bodies, and institutions i.e. “more knowledge about wider system such as health economics and commissioning”; “...trying to consider different views from both a commissioner and provider perspective”; “I was more able to think as a commissioner and really understood the challenges and systems within the NHS”. There was much willingness to bring about systems change in London and beyond i.e. “I think a lot about organisational change as in Scotland a gentler version of the GP commissioning in England has just begun”. For many Fellows, the different facets of the NHS are now well understood, alongside greater awareness of new initiatives and, also, of “cycles of change”. The fellows now have a much greater understanding of organisation structure and functioning and thus able to consider the priorities of both people and organisations and how these could influence approaches to collaboration (or enhance their decision-making).

This is encapsulated through the following quotations:

“More confidence and more open to possibilities of change (rather than feeling the system is impossible)”.

“Better appreciation of co-production and compassionate leadership”.

“Able to look at the bigger picture, i.e. as i’ am now able to understand the structure of the NHS I know where change can occur”.

“More confident about the wider NHS and my role in making significant change”.

“More knowledge of healthcare system as a whole-related bodies, commissioning”.

“The biggest difference I had noticed during the Darzi was being critical of my practice and asking why was I doing what I was doing, what were the influencing factors, was my work supporting the system or the patients to whom I work with”.

Thus, there is clear evidence that the Darzi programme has created a plethora of systems thinkers and doers, with a greater understanding of how to use data to bring about system change i.e. “Darzi programme helped to instil a robust understanding of population health data/design principles”. Respondents were reportedly more strategic in their approach to problems, e.g.:

“I am more strategic and visionary in my thinking and reasoning”.

“More proactive in instituting change in our department”.

“Lots of changes in my thinking, action and intent. The biggest one being thinking in systems. I am more aware of myself and the context I’m working in. I’m also more aware of the distinct lack of patient / citizen voice. Lastly, I’m trying to be more mindful of my position in terms of power within the system”.

“...not afraid to take a step back and approach things from the basics - will ask questions and try to elucidate the questions we are asking before embarking on a post”.

2.2 Competencies, Meta-Competencies & EI

“I notice I have more stamina, more ability to stop, think and reason, without my heart missing a beat or without feeling like I am going to fall prostrate on the floor in fright, panic or disappointment; i.e., less drama, more able to produce the goods”.

Table 5 Competencies and Meta Competencies

Reflective	Patience	Resilience
Anticipation	Fluid Learning style	Listening skills/ Active questioning
Adapting	Proactive / Can do attitude	Visionary
Sensemaking (navigate around complex power structures and personality types)	Confidence (public speaking) / Assertiveness/ Ease with self/ Saying NO	Greater awareness of self-role, patients and system; more awareness of how to successfully manage change; of skills needed to develop a change project
Political astuteness	Empowerment	Embrace failure and generate learnings for sake of service change

A range of responses to Question six was directly or indirectly attributable to the concept of Relationship Leadership and comparable meta-competencies encompass personal, team-based based and organisational competencies. A picture emerged of often bold individuals with a determination to actively instigate change across London and beyond, i.e. *"...nobody has all the answers and things are changing rapidly so don't be afraid to get involved as nobody else seems to know what they are doing"*. Fellows realised the importance of taking an empowering approach and feel more confident in challenging certain decisions and situations. An 'I can do it attitude' attitude has emerged, and fellows are essentially motivated change makers i.e. *"I now always think how could this be improved and then I do something about it"*; *"Keen to find solutions rather than just moan!"*; *"I have found I have built resilience whilst working with the ever-changing management structure within my own department"* These highlights were further reflected in the following quotations.

"Better knowledge of politics in the workplace and using techniques learnt to navigate this. Greater understanding and more aware of myself and of others (e.g. personality types); applying this awareness in response to situations and to control stress".

"Being able to articulate therefore reflect better when things not going right. I feel stronger emotionally. Know what I like - my strengths weaknesses".

"Certainly transformative for my personal development e.g. sustainability, resilience and confidence".

"Better understanding of management, the stressors and efforts which go on behind the scene without jumping to blame".

"Much more aware of hospital workings, politics, quality improvement, people management, getting things done".

"I am more aware of how I conduct myself and others' behaviours. I reflect more than previously and encourage others to do the same".

It was evident through the various responses to Question 6 that the NHS in London is an intricate network of bodies and organisations consisting of, for instance, various professional groups, healthcare departments and healthcare specialists. Most respondents acknowledge that change is essential to bring about an improvement in service quality and patient satisfaction in conjunction with organizational performance in the NHS. However, the NHS still struggles to innovate on different levels, for instance, in respect of its management systems and underlying culture. There is evidence that many Fellows are emerging as leaders, acting as catalysts for sustainable change in the healthcare environment.

Fellows are also much more aware of their strengths and limitations: *"...always confident to take a systems perspective and seem to have dealt with all those Imposter Syndrome doubts/narratives that I didn't realize were plaguing me before!"* Fellows now have a clearer view of self: *"I can identify transferable skills in myself and others; I have a broader vision of the environment I operate in. I seek challenges with the belief that I can achieve it"*; *"Not being afraid to assert myself, thoughts or ideas; Negotiation; Asking for things"*; *"How I challenge the status quo and collaborate with others to bring about change - I remain a positive deviant!"* Table 5 illustrates the range of competencies that are relevant to multiple work settings within healthcare, and which

enable greater adaptation and flexibility in the NHS and its respective organisations. For instance, respondents are actively applying aspects of situational leadership (see Hershey et al., 1979) to managerial and leadership challenges and power structures. There is also a “Greater willingness to challenge and no longer go with the status quo. constantly asking “why and how can we change this?”. A plethora of concepts and theories are now at the fellows disposal, and whether transformational or transactional leadership, situational, ethical or charismatic leadership, for instance, respondents acknowledged that each should be applied based on the context to meet the evolving objectives within their respective projects and organisations. Respondents are thus applying their myriad of leadership skills in practice and are cognisant of the power dynamics that underpin this practice. Participants had emerged from the programme with an intricate awareness of leadership styles and preferences, and a desire to apply theory to practice. The following quotations are used for illustrative purposes.

“How I view leadership has also changed I think through this year and increase in passion and power in taking risks to disrupt systems”.

“More inclusive of others and being aware of the role of leading a team by not providing all the answers and acting as a hero but allowing their views to develop into effective bottom-up solutions”.

“Different way of thinking with more approach now to distributed leadership and using more leadership than management skills alone”.

“Improved leadership skills. Confidence in leading, promoting and teaching change. Ability and flexibility to initiate change”.

“A much better understanding of conflict, complex thinking around leading, working with differing leadership styles, how to maximise and value my own approach to leadership”.

“More awareness about my leadership style and leading different personalities”.

2.3 Relationships and Networks

A noticeable change regarding thinking and practice was also evident in the context of human relationships and networks, e.g. one respondent referred simply to a combination of experience coupled with the power of “networks [and] confidence with managers and management”. Respondents point to better engagement with seniors and different approaches taken when dealing with peers and staff, e.g. “I think much more about the people and the influences and relationships needed to succeed”. There was a much greater appreciation for stakeholder involvement compared to pre-programme. The programme has also raised awareness of others and enables more effective and fruitful collaborations. The programme also imported a different insight into how others work, by emphasising the importance of stepping into the shoes of others. This has led to fellows being more creative and adaptive in their approach to influencing people and change i.e. “Understanding the importance of finding the ‘real’ problem and mechanisms of doing this. Developing a deeper understanding of the relational aspects of leading change”; “I now understand the importance of relationships and people and have conveyed this idea to others who have reported it useful and has impacted on how they work”.

Coupled with relationships was the importance of leading through networks. Respondents are increasingly focusing on developing relationships rather than policies and taking more interest into the reality of hierarchies and markets and the possibilities of networks as a form of organising design. Hence a vivid interest and understanding of networks and underlying power structures in the system have also emerged, with respondents voicing a greater appreciation for alternative structures and human relationships. This is encapsulated by the following quotes:

“Before Darzi I looked inwards, within the organisation and my team. I now look much more strategically. I understand the power and value of collaboration and partnership working, where before I would have shied away from this. I have a much wider network now through which I can influence and learn. My thinking before and after Darzi is so different I find it hard to remember life before Darzi!”

“Greater appreciation of the pivotal value of multi-disciplinary team input right from exploration/conception stage of any health initiative”.

2.4 Project Management (Technical) Skills

Securing the various changes in thinking and practice is a portfolio of project management tools and techniques that were garnered during the Darzi programme and which enable fellows to plan and manage projects with a greater degree of confidence e.g. “[now] spending more time on the early work (e.g. scoping, building trust, surfacing)”; “I plan and think about the best approach to projects”. Respondents are now bringing QI approaches to most projects that they undertake, and their approaches to project-based work now follow “...more robust structures and that I involve patients and colleagues more in any projects I work on”. Further illustrative quotes included:

“The opportunities and scope presented within a free-form role with autonomy as a Darzi Fellow allowed me to work on a wide range of projects and achieve outcomes I would otherwise never had time or the space to do”.

“I really enjoyed the opportunity to run a project with support and start things from the position of a learner and then develop”.

“Asking the right questions and to the right people in the design process”.

3 Design Principles: The Theory

Respondents pointed to a range of design principles covered during the Darzi programme that have been (or are currently being) employed in the Fellows work. These encompassed a plethora of concepts, theories, models, frameworks and approaches linked to Systems Theory, Co-Production, Project and Change Management Theory, Leadership Theory, Networks Theory, Theories on Improvement Models and various learning-based theories.



Figure 1 Application of Design Theory and Approaches

The following quotes are used for illustrative purposes:

“Much of my work has involved taking a systems view which others often find refreshing within a system which is still very siloed”.

“I enjoy using the theories and principles around whole system working and collaboration when challenging practices. I regularly use QI principles and constantly look for opportunities to run small and frequent PDSA cycles at work”.

“Many of them! The importance of building the core economy, co-production, Plan-Do-Study-Act (PDSA) cycle, leadership and followership, quick and dirty interventions. The list is endless”.

“Been involved in a large coproduction project - my role is workforce development so whilst this wasn't with citizens the workaround retention was co-produced with staff on the shop floor”.

“I am more aware of things such as Kotter's model and with this understanding can be more strategic when implementing change ideas”.

“Navigating politics (identifying power/influence); practising different leadership styles; greater understanding of NHS management structure”.

“Problem and risk stratification along the wicked versus non-wicked problem continuum”.

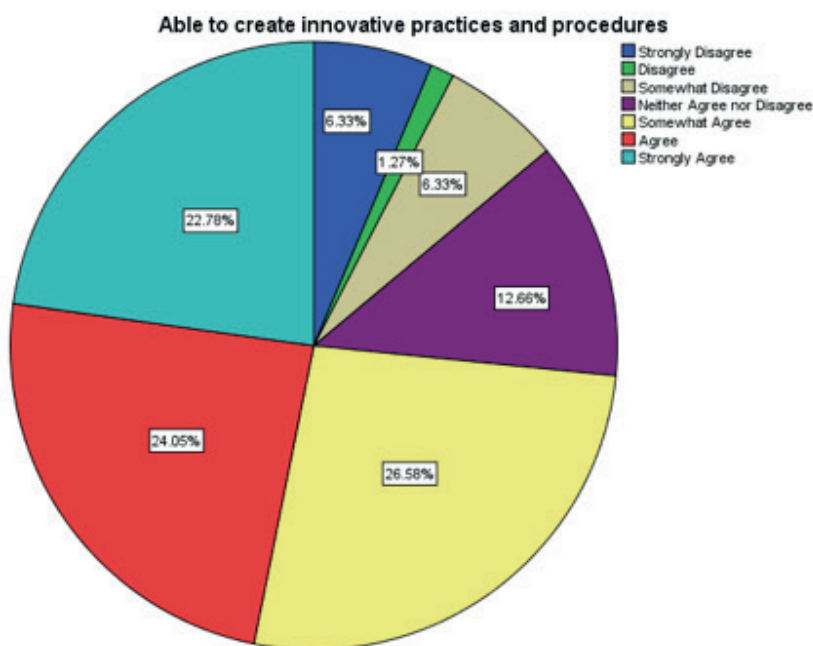
4 Creating Innovative Work-Practices

Approximately 74% of participants stated that they either “somewhat agree”, “agree”, or “strongly agree” to the question: *“I have been able to create innovative practices and procedures in my work”* as a result of the Darzi programme.

Statistics

Able to create innovative practices and procedures

N Valid	79
Missing	1
Mean	5.15
Median	5.00
Mode	5



Able to create innovative practices and procedures

This constitutes a high level of impact for the programmes underlying objectives.

5 Applying and Experimenting with Darzi Learning

“After bringing my original project into business as usual by the end of 2016, I found there was less space to be innovative where I was. There was a shortage of positions where I could really put the more advanced skills I had learnt into practice. However, since starting my new job a month ago, straight away a large battery of skills and knowledge from the Darzi were needed and put to use, including: Scoping out and initiating a project from scratch; ability to analyse individual and group dynamics in a new team, thereby helping me to adapt quickly. Detailed understanding of the NHS and the wider health landscape required to operate in this setting; use of my networks to make connections inside and outside my new team. Project and programme management skills”.

Participants garnered a variety of project management knowledge and skills through the programme which was subsequently translated into practical projects across London (5.1). Section 5.2 illustrates the creative nature of Darzi Fellows as a result of the programme. Interesting responses also emerged around their ability to think strategically and wear different hats depending on the role/type problem (5.3). Further responses pointed to themes including Cross-System Collaboration and Networks (5.4). Leading Teams (5.5). Interesting snippets also emerged about the role of up skilling and also the shift into new areas such as Training and Development Consultants. Six respondents felt it was too soon to comment.

5.1 Applying Project Management Tools and Techniques

“The Royal Free hospital is one of the nominated Global Digital Exemplar sites. In 2018 Royal Free will open the NHS’s first fully electronic hospital. I am working as part of the Clinical Informatics team. Royal Free is also a nominated NHS Vanguard site that will contribute to the development of a blueprint for the future of NHS and care services. I have been employed as a project manager for a Pharmacy Transformation project aimed to develop a Clinical Operating Model to transform the hospital pharmacy services”.

Those relatively new to the role (Darzi 8’s) were either in the process of identifying opportunities for projects, or applying project management tools and techniques to address complex challenges i.e. *“Several projects were developed and driven with many of the underlying theories and principles learned on my Darzi”.* The whole change and project management lifecycle was being applied, with emphasis placed on both leading complex change in conjunction with the technical skills of project management, i.e. *“...forming different relationships with people. Spending much more time planning/ exploring solutions. Engaging and including people”.* The importance of good planning, communication skills and stakeholder management was highlighted, with a view to *“...ensuring all the right people are in the room”;* *“Setting up a working group that involved a diverse range of stakeholders to address disconnects in healthcare”.*

Further quotes illuminated the theme of Leading Change Projects:

“It was a while ago so I find it hard to give concrete links to theories taught, but all gave me a great foundation for thinking about how to execute change management”.

“Initiation of change within department, with whole systems approach broken down into smaller projects.”

“I’ve created [several projects] from nothing and it has mainly been in my own time”.

“Lucky that I have a manager who understands this mind-set so have been given a large amount of autonomy - also the system I am working within is struggling and therefore, the approach is “nothing to lose”. Spent the first few weeks of new role scoping the problem and making it clear that deliverables will come at a later stage once all information has been gathered”.

“I delivered practice WiFi [rolled out WiFi to GP practices] across Lambeth. I set up a federation. I set up and run the first NHS hub-based online consultation service”.

Respondents are also applying and experimenting with Darzi learnings through various QI projects within their current roles i.e. “[Paediatric] A&E doc”. Others are in the process of i.e. “bringing change and challenge to the CCG”; “Running a pilot/PDSA cycle”. Further illustrative quotes include:

“Involved in many improvement projects so using these ideas all the time”

“Working with all maternity departments in England to up-skill staff in QI methodology and develop their own local QI projects”.

“I am applying what I’ve learnt over my time as a fellow in trying to secure a new career within QI in the NHS since finishing my fellowship.”

“My scope of work has totally changed to focus on quality improvement activity. This has mainly been in the arena of facilitating others to learn about and implement improvement rather than leading transformational change myself.”

“I feel my new role automatically gave me the opportunity to apply the skills as I am heavily involved in working with clinicians to create improvement plans and action plans. I wouldn’t have got the role without completing the Darzi fellowship”.

5.2 Embracing the Opportunity to be Innovative

“My current role and my learning from the fellowship enable me to be brave, to make confident decisions which are grounded in evidence, rather than following the norm and keeping the status quo. I have been described as a “positive disrupter””.

Participants recognised that new modes of organising and practice were essential to meet healthcare challenges in London. Different facets of innovation (in healthcare service delivery) were needed to reflect innovation in other parts of the system. The Darzi programme was credited for nudging Fellows from their comfort zones and encouraging the uptake of new challenges, thus i.e. “giving me the opportunity to bring some new ways of doing things”; “By sharing my learning with others and practising the learning”. Fellows viewed themselves as different types of practitioners compared to pre-Darzi, i.e. “I attempt to innovate, seek to find momentum and let that drive practise”; “Multiple innovation is a huge part of my role”. Respondents embrace the opportunity to be innovative in a number of ways, from the initiation of projects, innovative teaching and mentoring through to innovation in research i.e. use of data and outcome measurements for evidence and measuring change. Further innovative quotes are provided below:

“I took over a practice in a new hospital, changed the clinic and templates, etc. Took over as training director, rewrote the rotas in liaison with the trainees - it’s so much better now (having been terrible since I was an SpR no one has bothered to change it). Basically - just getting involved, speaking to the stakeholders and actually bothering to get things done!”

“I suppose the very act of taking a year out from work is an experiment. I feel that Darzi had a great impact upon me that I have not yet fully understood and need time and space to go over the work covered, the changes in myself and consider what next. I do not think I could have done this in full-time employment to the level that I would have wanted, quickly slipping into old habits”.

“I have freedom to be creative because I work in an AHSN - implementation science is a core function”.

“I was lucky to have a supportive sponsor who allowed me some freedom to trial the methods I had learnt and encouraged by self-reflection”.

“...learn from failure...so I try just having a go with things personally and being more relaxed working with uncertainty and trying things out”.

“I have used a lot of the mentoring skills and ‘other shoes’ ideas to help manage and mentor Juniors”.

5.3 Strategic Thinking

“I am interested in how others react to whole system problems. Historically emergency departments have shouldered the burden of many a pointed finger in their direction as to what is going wrong within a hospital. However, I feel that whilst it is important to have one’s own house in order, it is easier for me to comment on where others might look to improve (which to be honest I probably would’ve done anyway without Darzi, but is now a more informed process on my part)”.

Knowledge and experimentation are also taking place as a result of more strategic (big picture) thinking, and through more of a systems-based approach to problem-solving. Fellows are i.e. *“using whole system analysis thinking to determine system failures and needs”*. Fellows are also applying their learning through the use of co-production tools and techniques to i.e. ensure that citizens are a *“part of the transformation (prior to me starting on the project this was not the case)”*. Co-producing took many forms, and included the co-design of “information leaflets, joint publications and campaigns”, and the continuing use of coproduction approaches for strategic purposes.

Strategic thinking and whole system approaches are associated with the growing set of meta-competencies generated through the programme (see Table 5), such as *“patience and perseverance”*; *“...having difficult conversations”*, and taking different approaches to problems, observing body language and being *“more aware of use of emotional intelligence”*. Fellows felt a strong attachment with fellow Darzi’s in the workplace because of their desire to change the system: *“In my new organisation, we are trying to keep each other in check in terms of keeping and applying to the new learning and not slipping back into always”*. Other examples of strategic thinking led i.e. to the establishment a new trainee network *“representing over 3,500 doctors in*

training and in running two significant conferences” and also through strategic thinking about “the [use of] real and perceived power networks that exist within organizations have been the principles I’ve utilized over and over”.

5.4 Cross-System Collaboration

A robust understanding of the insights and challenges in cross-system / interagency collaboration seems to have emerged, such as the need to build system-wide trust to promote more effective and efficient collaborative working i.e. trust among the leadership of partner organisations. One respondent was able to: *“...better engage with external organisations and staff to produce more collaborative work”* Another respondent took a proactive stance by applying within leadership roles: *“...to support a movement towards collaboration across systems”*. The following quote provide insights into a fellow’s leadership role in a change programme.

“Straight after the Darzi year, I lead a change programme with my host CCG - working with GPs, pharmacists, care homes, trusts and the council to pilot an ‘Invest-to-Safe’ care homes project. Some of the learnings around change management and complex and messy systems were helpful - as were some of the learnings around negotiation and handling meeting”.

5.5 Leading Teams

“Every day is leading. Influencing a team, setting culture and communicating with others”.

Fellows continue to draw upon the insights and learnings from the programme to manage and lead teams. This was encapsulated through the following quotes:

“I have learnt that people will be part of something they create and that leaders come from surprising places. I am using some Darzi thinking with regards to building a new team”.

“...started local team meetings and we started with the basics of what our values were, what we wanted to achieve, etc [and this] instigated a team approach”.

“Identifying and fostering roles in a group to enable teamwork”.

The following illustrative quotes span the major themes from question 9.

“As a consultant and a lead in education I have utilised the change management skills, and greater awareness of my personal impact, to effectively deliver both large and small-scale change in the organisation. I am now applying for a deputy director role in the organisation, after only 9 months as a consultant”.

“My intention when I finished the fellowship was to approach my next job as Part 2 of the fellowship - to keep that sense of learning (and to a certain extent ‘playing’) and take it into a new role in order to consolidate and embed what I’d taken from the programme. I then took a job which was another leap out of my comfort zone and so the approach was really useful in helping me adapt and grow without being swallowed up by the task”.

“I experiment regularly and also do my own 360 degrees as I see that learning about my strengths (viewed by others) I always considered to be my weakness. For example, I saw

myself as a thinker, driving myself crazy, thinking, then I realised I am a reflector, and being aware that I am, has helped me a lot. I am driven and saw that as bad as I am impatient, now I know it has a benefit and I use it. Now I know just to lift the foot off the peddle occasionally”.

6 Surprise About Learning Since Participating

“I didn’t think I would learn as much or change as much as I have. It feels empowering and hard to articulate the change. [I] have increased knowledge but something more than that which it is hard to put into words. Was quite powerful having a cohort to do this with as realised it wasn’t just me feeling this way, and seeing the impact of peoples’ projects was amazing and shows what is possible!” Darzi 8 Fellow

The Fellows have largely registered a sense of empowerment resulting from the experiential learning and the associated transformational moulding forces they have responded to in the Darzi programme. This experience took many forms, such as self-realisation, personal change and the liberating freedom of empowerment, the power of cohorts and networks, and the learning itself.

6.1 Self-Realisation

Prior to the Darzi experience, the respondents self-identified with varying degrees of confidence in their existing abilities and competence to lead others through relationship-building and system change. One described it this way: “I know myself better than before; [coming] to realize that it is OK to not know what you are doing or how to overcome a barrier; you just need to try other routes”. Other observations included:

“Learned more about myself, my personality, my traits and leadership style than I expected. Learnt how to adapt this for different situations”.

“I realise that I need to be more confident in myself and in the skills I have acquired”

“Gained in confidence greatly; not afraid to challenge (in a positive way)”.

“I was surprised at how little I actually knew and understood despite having a great deal of experience”.

“I learned that ‘self-development is not indulgent”.

The Fellows’ adoption, perhaps more absorption, of the Darzi techniques is unconscious. As one Fellow put it: “I am more open-minded and think I often apply the skills I have learned subconsciously. It is only on reflection I realize I have applied Darzi skills.” Yet it is not only subconscious. Another Fellow observed being “much more conscious of [his/her] strengths and weaknesses” and yet another commented on: “the sense of self-belief that I achieved through Darzi”.

6.2 Personal Development and Resilience

Continuing with the Learning Organisation theme, people respond well to change by they themselves changing. Some of the Fellows describe their “...ability to talk and think on a systems’ level”, a reflection of their facility with Senge’s ‘Fifth Discipline’⁶, which describes systems thinking. Systems thinking begins with the understanding that no single element in, e.g. a QI system, is responsible for overall system performance. Rather it is the combination of the variety of forces and interrelationships that shape the behaviour of systems (like development of the Fellows themselves).

Fellows describe their surprise at the extent to which they have changed:

“Awareness of the system. Confidence and ability to bring colleagues together for improvement work.”

“How often I am able to reflect on an interpersonal situation using approaches learnt during Darzi to understand the dynamics and how I may need to modify my behaviour. I can’t believe I’m still in my learning set!”

“Before Darzi I would have stopped at a hurdle if my few attempts to navigate it failed. Post Darzi I use many more strategies to influence”.

6.3 Cohorts and Networks

Each Darzi cohort lives on through the network(s) it creates and joins ‘bridging networks’; thus, the learning self-perpetuates. The Fellows articulate the difficulty in articulating their mind expansion. At the same time, one Darzi Fellow acknowledges that *“seeing the impact of peoples’ projects was amazing as it shows what is possible!”* Another observes that it is much more than just the programme; *“the headspace it affords meant I came out with an enormous toolkit of bits and pieces which are useful to draw upon as new challenges arise”.*

They spoke of the power of the wider Darzi network (including the use of ‘WhatsApp’). One Fellow declares his awareness of needing and wanting *“their support and inspiration”*. Another seems to echo that theme by wanting *“to be part of an alumni network and meeting up again”*. Another highlights *“the sense of self-belief I achieved through Darzi – the value of networks and just how effective it can be”*. Another still: *“I view challenges very differently. The biggest thing I notice is how many people I now know and the impact these networks have on what I do”*.

6.4 The Scale of Change

One of the biggest eye-openers for the Fellows has been that they *“are alerted to system complexities of which they had been unaware”*, e.g. *“at the time admittedly I didn’t appreciate the scale of change and politics in the workplace that was alluded to on the Darzi programme”*. Some have seen these revelations as *“unsettling”*, particularly the magnitude of the change mandate facing them. They see that *“the veil has been lifted on areas like commissioning and strategy”*. Threading through comments like this though, we see observations such as *“the desire from clinicians to be involved and participate in leading change”* and *“how many individuals want to effect positive change”*.

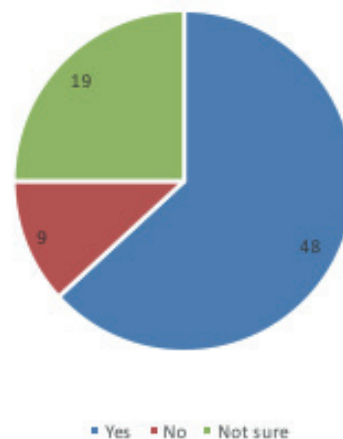
⁶ Senge, P. (2006) *The Fifth Discipline: The Art and Practice of the Learning Organisation* (rev.ed.) Toronto: Doubleday

At the same time, these Fellows are sensitive to just how difficult change can be when surrounded by strongly defended fortresses of the old ways of doing things. But they are also thankful for the gift of now having this understanding and the tools to follow through with it. As one Fellow said: *“Anyone can implement change if they want and once they know how”.*

7 Darzi Experience-Related Accomplishments of Which Particularly Proud?

The Fellows were asked to comment on whether or not they had Darzi accomplishments of which they were proud and what those accomplishments were.

Darzi Achievements of Which Very Proud



If so, please explain those that you are particularly proud of:

“Completing a challenging project, and pushing myself out of my comfortable zone”

“I have already published an article, and hope to publish another 3 articles. I am continuing with the work I did through the Darzi year. I have written a research proposal from the work I have done and have submitted this to a funding agency”.

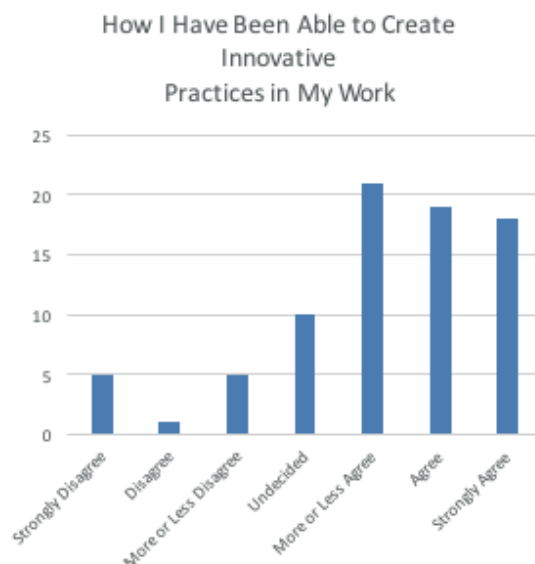
“Presented my work at an international and national conference, it is nice to be recognized for the work, hoping to get published over the next 12 months”.

“Published national report <http://resolution.nhs.uk/five-years-of-cerebral-palsy-claims/>”.

“Part of the HNS improvement steering group that will teach QI methodology to maternity staff in every hospital in England over the next 3 years. During my Darzi project, I influenced the leadership team to engage with service users and clinicians to shape redesign and innovation of services”.

8 Development as a Leader (7-Point Likert)

We were interested in the Fellows perspectives on the type of leader they became. As a result of completing the Darzi programme [Main Question], 'I am a... (Note 1: Strongly disagree 7: Strongly agree). We summarise the results of this rating questions below



Most of the review is a qualitative study, flowing from the questions directly asked of the Fellows which serves to reflect their values. Embedded within are some quantitative questions, the answers to which identify emerging patterns of behaviour.

	As a result of the DARZI Leadership Programme so far, I am a:	Mean	Mode	Median	S.D.
Q 8.1	Leader with the knowledge, attitude, skills and change practices to lead the NHS of the future	5.14	6	5.00	1.287
Q 8.2	Leader with a deep understanding of systems leadership, new models of care, their benefits, challenges and application	5.37	6	6.00	1.218
Q 8.3	Leader who has made an impact on health care through the delivery of real change	4.99	5	5.00	1.334
Q 8.4	Leader who can demonstrate confidence, resilience and the ability to lead in times of uncertainty	5.36	6	6.00	1.309
Q 8.5	Leader who effects change in multiple contexts and for multiple types of change work	4.99	5	5.00	1.274
Q 8.6	Leader who is a more reflective practitioner	5.76	7	6.00	1.505
Q 8.7	Leader who is transparent and realises the importance of shared and distributed approach to leadership.	5.87	6	6.00	1.390

The authors used Chronbach’s Alpha, a measure of internal consistency, to test the reliability of the questionnaire⁷. The initial assessment of the 7 questions (items) on this scale showed they were very suitable questions to be used to gauge what the Fellows have learnt - a Cronbach Alpha was 0.89. This suggests that the items have relatively high internal consistency and thus reaffirms the findings that the Fellows are very consistent in their beliefs about their leadership.

When it came to the Fellows’ perspective of their developing leadership skills, there was a general overall agreement. Most respondents tended to Agree or Strongly Agree based on items adapted from Wasko and Faraj (2005). Items were measured on a 7-point Likert-type scale (Strongly Disagree, Disagree, Somewhat Disagree, Neither Agree nor Disagree, Somewhat Agree, Agree, Strongly Agree)]. Thus, the stronger the Fellows’ tended to agree with the statements made, the higher the average (mean) they recorded. The authors looked at individual questions in the scale which show that the Fellow rated “*Leader who is transparent and realises the importance of shared and distributed approach to leadership.*” as the highest (Mean = 5.87). Their views on this were not so polarised as shown by the Standard Deviation (S.D.) of 1.390. On the other hand, the questions “*Leader who has made an impact on health care through the delivery of real change*”; and “*Leader who effects change in multiple contexts and for multiple types of change work*” were the least rated (Mean = 4.99), and the Fellows views’ on this was fairly consistent and not too polarised (S.D. = 1.33 and 1.27 respectively). The question “*Leader who is a more reflective practitioner* had the highest SD of 1.505%. However, the important aspect is that the data meets the assumptions of the model being used and the findings point to the development of robust and innovative leaders who play important roles in London NHS and beyond.

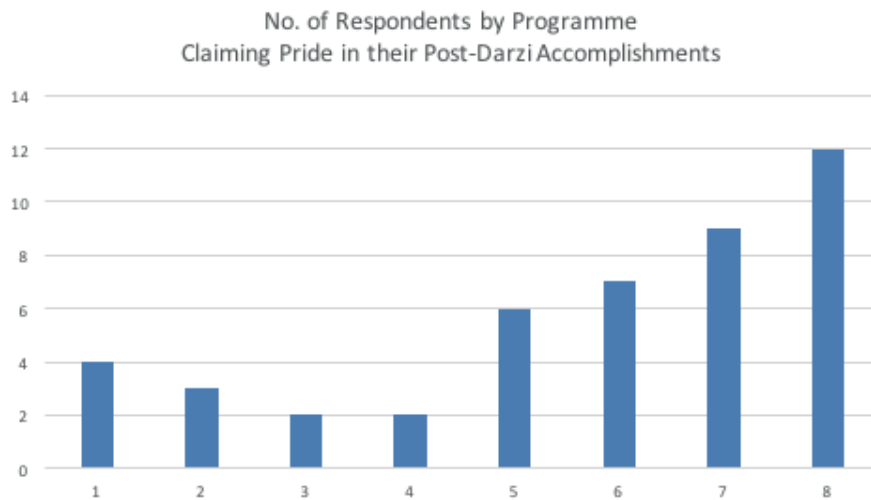
9 Making a Difference to Healthcare in London

The most recent graduates of a Darzi program (i.e. Darzi 7 & 8) have been the most likely to respond to this survey. In the case of this question, 17 of the 66 respondents who replied to the question with comments, stated that they hadn’t made a difference yet or typically that it was “too soon to tell”.



⁷ Anything over 0.70 is considered to be acceptably consistent in most social science research situations.

While some Fellows feel that they are too recent graduates of the programme to have made a significant mark yet, the most recent are in fact making significant progress already. The doctors are, in effect, active medical consultants.



Some chose to respond with observations about personal development (promotions, new or improved skills, awards, papers), presumably from those who had yet to make a systems difference. Many pointed to improved services or general contributions (45), how they were now leading teams and the power of the Darzi network to help support change.

9.1 Fellows’ Personal Development

Several Fellows commented on the broadening of their perspective on the NHS health economy and how the NHS functions. They felt that this new depth of insight into current challenges faced by the NHS helped to improve the quality of their decision making. They felt more competent to address new issues and to contextualize change, and to take on and complete projects on different levels.

A general observation was that *“most of the group went on to be leading Medical Consultants and business people”*. One Fellow pointed to the Darzi graduates publishing reports and filling new roles which are helping to bring the NHS together. One Darzi 2 graduate cited some of the influential roles of peers such as a deputy medical director, work in Clinical Commissioning Groups (CCGs), child protection and cancer strategy.

9.2 Improved Services

The most prevalent observations about system quality initiatives related to service improvement. The Fellows tell stories filled with enthusiasm and accomplishment. One Fellow describes how *“Darzis have almost infected the NHS system-wide with both ideas and projects that are causing positive change.... This change is like a cancer spreading similar messages and practices across the system”*.

For example:

“We are creating a new way of working which is essential to the survival of primary care. There are not enough GPs and it is going to get worse before it gets better. We are creating a new way of working to enable better access and better workflow and efficiency of GPs to do more with less via centralised and remote e-consultation”.

“I have been making a difference by changing the way the NHS works with care homes to ensure that the person is the central focus for services, irrespective of provider”.

“Improved patient safety - improved patient engagement to produce educational leaflets/information provided for patients - campaign to teach patients and staff in various healthcare settings how to correctly use their eye drops / eye ointments - this leads to better compliance and better treatment outcomes. This has won the people's choice award at HPE (2016), the Trust's QIPP prize award (2017), and the Trust's award for innovation, research and education (2016)”

“Some have made National contributions to evidence and papers, some are working on new models of care, others are working in improvement posts for trusts, some have taken leadership roles to influence the trajectory of local health services for community. There are also Darzis now in NHS England, DOH, NHSI, HLP and HIN who were not there before we began, so their presence will likely impact for the positive”.

“As QI lead I am working with other groups in on transformation plans”.

Even the recent Darzi 8 graduates report positive changes in their outlooks and performance:

“I am just post Darzi. I think I make a difference to my patients on a day to day basis. I am hoping to make a difference to the way we steward the use of diagnostics to reduce variation in care and save resources for the health system. I think having and trying to follow the concept of compassionate leadership is the way I hope I can make a difference and know my colleagues will be trying to do the same”.

“There are so many incredible pieces of work that have been come about due to Darzi 8. some of the one's I am aware of are working on getting care closer to home and trying a new way of working for therapists; forming a AHP network, forming a QI network, NHS litigation report. As a collective there are many of us now working at Healthy London Partnership and the impact of Darzis on London will continue”.

They go on to describe imparting enthusiasm, shared vision and values, education, collaborative practice, general improvement plans, equity of access, changing mindsets regarding experimentation and inclusion. They also note that it is difficult to quantify progress in *“complex interventions involving behaviour change”*. But these service improvements extend well beyond direct patient care:

“Have begun to improve the way Audit and QI is conducted at ESTH”.

“Changing thinking on the ground level. Exploring alternative ways of working. Imparting a shared vision and working to shared values”.

“Policy and strategy development”.

9.3 Leading and Leadership

The Fellows are meeting the expectations of ‘to whom much is given, much is expected’. They describe how they are stepping up to QI through the “wide range of roles undertaken”. Some of these include formal leadership positions (promotions) although, as one Fellow observed “I

have realised that leadership doesn't always need to be shouted about for it to be effective". Appropriate to that Fellow's comment, QI initiatives can be stimulated by "sharing enthusiasm and skills with other healthcare staff". In discussing the importance of leadership, another Fellow describes that "I can see that the alumni network has made a difference to connecting Darzi fellows, sharing job opportunities and creating a 'critical mass' of ambitious clinicians with leadership skills who are dedicated to innovation and improving the NHS."

9.4 The Power of the Network

Permeating the whole survey are tales of mutual support (without fear of personal risk), shared experience and learning, job opportunities and cohesiveness (as a Darzi group). For example:

"The network is so important - for sharing learning, drawing on each other's expertise and supporting each other in very complex and challenging leadership situations. Having a small group of people who you can be honest with is really important. I'm leading two large programmes in the NHS and have seen benefit to patients and the system from this - although still much learning and improvement to happen"

"Awareness (particularly through the Whatsapp group) of a fantastic range of initiatives that have been spearheaded and supported by Darzi - 7s e.g. Digital health, healthy London partnership, quality improvement, the clinical training representation and improvement body I am involved with - to name but a few... I do wish I knew more about the activities of the other Darzi cohorts/how to better engage across years..."

"I think that we have much more joined up thinking across different areas of healthcare. I also think I have gained a considerable insight into how hospital trusts are run and why they function the way that they do"

"I can see that the alumni network has made a difference to connecting Darzi fellows, sharing job opportunities and creating a 'critical mass' of ambitious clinicians with leadership skills who are dedicated to innovation and improving the NHS"

"Our Darzi cohort have remained in contact via WhatsApp group and we meet at least once a year. There are numerous projects we have been working on and even collaborating on both on local and national level. Some include LAS, NHS England, telemedicine"

"Lots are involved in QI positions within trusts. Darzi 7 group keep well informed via our Whatsapp group"

10 Influence of Darzi Network in London

A consistent story continues to emerge of the collective influence of networked support, action learning sets (ALS), and diverse (multidisciplinary), dedicated staff working within the system. When describing the Darzi phenomenon, the Fellows use words such as “crucial”, “critical”, “vital”, “invaluable” and “pivotal”.

10.1 The Value of the Network

Those Fellows who use those words above, link their successes to exploiting the resources in their Darzi network. They describe three key aspects of the network: “*non-hierarchical means you can get first-hand advice in a practical way*” by connecting authentically and directly with the needed resource, “*inspiration from the work of others*” and non-clinically, “*getting in contact with someone who can unblock things or help is immense*”. Others talk about the network being “*great for bouncing ideas off of each other*”, a “*network of friends to test ideas and find contacts*”. They mention “peer-to-peer learning” and “action learning sets” (both formal and informal) as instruments of leading change. They describe these resources as something they never experienced pre-fellowship. Frequently mentioned is the WhatsApp application as the primary communications vehicle for the network. On the downside, many observe that this resource is underused and could be exploited much better. Those who do rely on the network, have a much better sense of what is going on in the NHS as a whole. For example, there continues to be “silos of convergent thinking” and the network can facilitate many connections which will serve to reduce unproductive and duplication of effort. Although some see the Darzi cohorts as an integrated whole, others see the connectivity as horizontal, i.e. cohort within cohort and wish for vertical integration.

Individual specialities tend to congregate in their own groups. When it comes to the added value of the network, Fellows point to multidisciplinary teams (MDT) as aiding in the breakdown of professional boundaries and contributing to cross-discipline learning and understanding. The Fellows note that local improvement leadership programmes, through shared experiential peer-to-peer learning and the momentum (mass and activity) of others, encourages engagement in change and improvement. One cohort describes how the individuals connect socially, which advances their learning from each other. These kinds of relationships tend to be more authentic and less politically driven, allowing learning based on trust. An individual highlighted Action Learning Sets (ALS) as “one of my biggest and most valuable learning” continuing their use in daily work.

10.2 Support via the Network

This “great support network” enables individuals to develop ideas into workable solutions based on the experience of others. The network allows for the rapid and meaningful dissemination of work and information when it is needed most, such as when “negotiating complex or difficult situations”. This support is not always direct; sometimes it is just a matter of knowing someone who knows someone or can open a door. Some Fellows find that their support usage is for social purposes and in the discovery of job openings, e.g. consultant posts. Some have gone so far as to say that they “*couldn’t have achieved the transformations [they] embarked upon without liaising with their peers*”; “*someone always has ideas or experience to share*”. The Darzi network does not create its professional boundaries; it also offers support to those who have not experienced the Darzi programme. One Fellow noted that it “*invigorates passion in those who don’t do this as a full-time day job!*”

11 Putting Change Leadership Skills to Good Use



Over $\frac{3}{4}$ of the Fellows felt that they were individually exploiting their new leadership skills. Similarly, just under $\frac{3}{4}$ of the Fellows believed that their Darzi colleagues were also putting their new leadership to good use



11.1 Examples of Collaboration to Secure Change

Examples of multiple organisations collaborating to consolidate services, reduce overheads or share costs are not new. But tearing down the walls of professional specialities for collaboration in healthcare service quality improvement is relatively new. The Fellows experiencing the Darzi programme are beginning to do just that. Some examples are:

“Using the Darzi network to share good practices”.

“Within the Trust where I am working there are several fellows from different years working and I think we have collaborated well both within and outside of clinical settings. One fellow is an Emergency Department Consultant and I was a medical SpR - even letting the our other colleagues see us chatting has helped alter the dynamic between the two departments”.

“Collective and widespread change influence, many of us network and come into mutual contact and through this network challenge and promote each other's work, we often target specific CCGs [Personsel] and use our network to influence real change”.

“I had a nurse colleague on the program. Her advice was pivotal to the project of nursing teams integration that I am part of.”

“I work closely with our Director of Medical Education to change and improve education for CMTs in our Trust and beyond. I am developing a multi-professional training programme for ventilation allied to the new nationwide Register for Complex Home Ventilation”.

“One of the programmes in my portfolio is working with a Darzi Fellow colleague on the spread of a well-evaluated coproduced training package to make a difference to children's experiences of urgent care”.

“Providing care for high-risk women and developing service provision (VBAC clinic, audit). Researching and developing care for women with metabolic risk factors in pregnancy”.

There are many collaborative projects underway that are not necessarily multidisciplinary. For example:

“Working with other Darzi pharmacy Fellows to develop a pharmacy Fellow network”.

“Setting up an occupational therapy leadership group to share ideas, promote learning and influence change”.

‘NHS Resolution’ thematic paper on cerebral palsy claims (<http://resolution.nhs.uk/five-years-of-cerebral-palsy-claims/>).

There are others who are on the verge of collaboration such as “meeting regularly to discuss each other's projects” or “advising others”. Several allude to collaboration projects that do not include other Darzi participants.

11.2 Ways Fellows are Working to Secure Change

While not contributing through what would be formally known as ‘collaboration’, the Fellows are active in QI projects in different ways. For example:

Doing “amazing work with CAMHS services with Dr. Rory Conn” (SpR in child and adolescent psychiatry).

“Supporting knowledge share for their roles in the network. I am also using the network to open up opportunities for other clinicians through teaching and work-based opportunities”.

“Utilising the network to share good practice in educational programmes”.

“Have used the network for finding guest speakers for education”.

“Giving advice to fellows on their new projects which involve stakeholders / methodologies I used, introducing them to people I know”.

“Encouraging an Alumni network and participating in events keeps us linked in”.

“We often share success and failure tips to aid in project and change management. It is really empowering to have another Darzi share what worked and data or experiential insight”.

“We continue to tap into the hive mind that is our network for anything from ideas for our work to connections with other people doing similar work from whom we can learn”.

“Working with an Alternative Health Provider (AHP) and engaging with folks in the sector to raise the profile of AHP’s”.

“Researching in a team (QMUL, BARC) working in a clinical team (Barts Health)”.

12 Interacting with Other Leadership Improvement Networks

In addition to their regular duties, plus linkages within the Darzi community, these Fellows are members of various leadership centred organisations, 52 formal associations and 14 informal, some more formal than others, with some Fellows being members of multiple organisations.

Institution	N	Institution	N
London Leadership Academy	4	Digital Networks	1
NHS Improvement	5	Professional Networks	1
Healthy London Partnerships (HLP) Urgent Care	3	Department of Health (DH) Strategy Unit	1
Chief Pharmaceutical Officer (FMLM)	2	CLARHC ⁸	2
Women’s Leadership Network	3	FMLM ⁹	7
MBA	1	Next Generation GP	1
DH Fellows	1	CCGs ¹⁰	1
Imperial Business School	1	RCOT ¹¹	1
Trust-wide Improvement Pgm	2	Health Education England	1
Health Foundation (Q)	8	UCL Partners	2
Linked In	1	RCGP ¹²	1
TEXxNHS	1	Imperial College Health Sciences	1
Informal	14		

⁸ Collaboration for Leadership in Applied Health Research and Care

⁹ Faculty of Medical Leadership and Management

¹⁰ Clinical Commissioning Groups

¹¹ Royal College of Occupational Therapists

¹² Royal College of General Practitioners

13 Learnings Leading to Effective Leadership Practice in London

The Darzi graduates feel strongly about their enhanced confidence arising from their new skills and individual coaching, *“a brilliant experience I would recommend to all”*. Another describes it as *“an amazing programme that completely changed my outlook and allowed me to see the bigger picture and supported my development as a leader”*. The Darzi program is an incubator / catalyst for a variety of Quality Improvement Initiatives and Effective Leadership initiatives. This is a logical extension of the MDT projects undertaken within the respective Darzi programmes. They believe that there would be much more potential for the Fellows if they were exposed to and brought together with prospective employers who are looking for talented people to join or lead teams. One Fellow suggests that *“too many people talk about leadership as if it is a qualification”*, believing that what is required is confidence built and momentum maintained so people can do it. This Fellow found that the personal coaching was an invaluable part of the programme.

There are limitations, e.g. salaried GPs see limited leadership opportunities in a primary care system that is under great pressure. Curiously, these sentiments echo those who are in fee-for-service domains in other jurisdictions. Others point out that once the Darzi programme projects are complete; it is difficult to make their trusts aware of the Fellow’s new skills and how to exploit them. Several commented on the desirability of integrating and verticalizing the Darzi cohorts’ networks. Some lament the loss of their Darzi peers who move away from the London focus but others celebrate the export of excellence to the benefit of other regions of the NHS.

14 Conclusions

The Darzi Fellowship in Clinical Leadership, now hosting Cohort 9, brings together multidisciplinary clinicians. The intent is to educate the Fellows in the new challenges of clinical leadership in the NHS and to equip these professionals with the tools to address them. The Fellows are expected to become the leaders of the NHS of the future. Most of the Fellows (63%) see themselves as leaders making real impacts in several ways. Some were uncertain (25%) and others were not claiming any contributions yet (12% predominantly in the most recent cohort which has just graduated). As the Fellows discovered, systemic change comes from the actions of teams and leadership doesn’t need a formal title to go with it. Thus, some individuals may be reluctant to claim ownership of their teams’ successes and collaborative efforts or are too recent graduates to have effected significant change. One measurement of their success is through their promotions, e.g. to consultants, assuming strategic roles, becoming educators and carrying on with further education. Over 50% of the Fellows feel strongly that they have experienced significant personal change, e.g. in being more confident when approaching more senior individuals or in cooperating with members of their teams to contribute their ideas. For more recent graduates, project and change management skills were new to them, but the skills acquired by others are bearing fruit on a plethora of projects and programmes around London. They have discovered the power of networking and now have an expanded resource list when they need to *“call a friend”* for clinical support, shared learning, job opportunities, and social mingling, even if that just means opening new doors.

By any reasonable measurement, the Darzi programme continues to be particularly successful. However, at times the Fellows feel isolated from their home organisations and even from each other, e.g. they are much more likely to network within their own Cohorts, horizontally than vertically through all the Cohorts. Some Fellows feel that when they graduate from their own programme and return to their home organisation, their home organisation doesn't seem to know how to exploit the Fellows' new skills. They also need encouragement to continue with their personal development. The following recommendations recognize these issues:

14.1 Recommendations

This study focused on individual fellows and to some extent, their collectives in terms of what they have done post-Darzi in the context of developing clinical leadership. There is much to suggest that the Fellows became the leader the Fellowship envisaged within the teams that are critical to innovation development. Some insights emerged into the Collective of Fellows, with evidence that they continue to make a difference to London in different ways. The report stipulates where they [Fellows] have gone, the type of jobs undertaken, and how they have progressed. The report is also littered with evidence about the difference they have noticed in their thinking/practice.

1. There is need for greater understanding about the organisational impact within London, NHS. A select group of organisations could be evaluated in order to further determine the implications of the application of Darzi Fellows within their settings.
2. By directing the focus of attention on the work inside organisations rather than the project or individual. It would be possible to gauge why particular organisations (sponsors) kept their appetite for bringing in more fellows. It will be necessary to determine the underlying factors that drove these organisations to return, and to gauge the organisational benefits that were reaped.
3. All the Cohorts should come together periodically to widen the Darzi network and to encourage Cohort to Cohort interaction.
4. The sponsor organisation should employ 'exit' interviews when the Fellow leaves.
5. Graduate should have the opportunity go on to further leadership development to support their career development and impact at scale.
6. With only 51% of Fellows currently interacting with other leadership and improvement networks, there is scope for greater network collaboration across London Healthcare.

Appendices

Darzi Longitudinal Study Survey Questions

Question 1: ELECTRONIC CONSENT Please select your choice below. You may print a copy of this consent form for your records. Marking an X on the “Agree” button indicates that you have read the above information and that you voluntarily agree to participate.
Question 2: What is your gender?
Question 3: Which Darzi programme were you a part of?
Question 4: Have you completed a leadership programme post-Darzi?
Question 4.a: If yes, what course/s have you undertaken?
Question 5: Please briefly describe your career trajectory post-Darzi (Prompt: what sort of jobs did you do?)
Question 6: What difference have you noticed in your thinking/practice since completing the Darzi programme?
Question 7: Which design principles (the theory), or approaches, covered during the Darzi programme have you employed / are employing with your own work?
Question 8: Please respond on a scale of 1: Strongly disagree to 7: Strongly agree.
Question 8.1: I have been able to create innovative practices and procedures in my work
Question 9: How are you applying / did you apply (or experiment with) what you have learnt?
Question 10: What has surprised you about what you have learnt after participating in the programme?
Question 11: Do you have any Darzi experience-related accomplishments of which you are particularly proud?
Question 11.a: If yes, please explain the achievement(s) that you are particularly proud of
Question 12: As a result of completing the Darzi programme [Main Question], ‘I am a... (Note 1: Strongly disagree 7: Strongly agree)
Question 12.1: Leader with the knowledge, attitude, skills and change practices to lead the NHS of the future
Question 12.2: Leader with a deep understanding of systems leadership, new models of care, their benefits, challenges and application

Question 12.3: Leader who has made an impact on health care through the delivery of real change
Question 12.4: Leader who can demonstrate confidence, resilience and the ability to lead in times of uncertainty
Question 12.5: Leader who effects change in multiple contexts and for multiple types of change work
Question 12.6: Leader who is a more reflective practitioner
Question 12.7: Leader who is transparent and realise the importance of shared and distributed approach to leadership
Question 13: Considering your career trajectory and the type of jobs undertaken since Darzi, please describe how you and/or your colleagues have made a difference to healthcare in London
Question 13.a: Tick here if you do not know how your colleagues are making a difference
Question 14: As a Leader with a wide network of critical friends and alliances, please explain the influence of the Darzi network for addressing complex challenges in London (e.g. peer-2-peer learning)?
Question 15: To what extent are you and/or your colleagues putting your change leadership skills developed through the programme and the projects in their London Darzi Programme year, to good use
Question 15.1: I am putting my change leadership skills developed through the programme and the projects in London Darzi Programme year, to good use
Question 15.2: My colleagues are putting their change leadership skills developed through the programme and the projects in London Darzi Programme year, to good use
Question 16: Do you have an example to share where you are working with other fellows to secure change?
Question 16.a: In what other ways are you working with other Fellows to secure change (Please provide examples of that?)
Question 17: Are you interacting with any other leadership and improvement networks?
Question 17.a: If yes, please explain where and how you are interacting with other leadership and improvement networks?
Question 18: Any other comments? [Prompt i.e. into how learnings from the programme perhaps led to effective leadership practice in London]
Question 19: Thank you for your invaluable cooperation in completing this study If you would like to receive a summary of the survey findings upon completion of this final report, please complete the following details.

Your Name Your Organisation Your Email address

NVIVO Coding

The screenshot displays the NVivo Pro software interface. The top menu bar includes FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, and VIEW. Below the menu is a toolbar with various icons for workspace, item, clipboard, format, paragraph, styles, editing, and proofing.

The main workspace is divided into three panes:

- Nodes:** A tree view on the left showing a hierarchy of nodes. The 'Qualitative responses' node is expanded, showing a list of nodes with their respective source and reference counts. The 'PM' node is currently selected.
- Nodes Table:** A table in the center showing the following data:

Name	Sources	References
Qualitative responses	0	0
9. How are you applying did you appl	1	80
7. Which design principles (the theory)	1	80
5. What difference have you noticed in	1	80
Whole System	1	36
Systems Change	1	3
Strategic Thinker	1	5
Relationships	1	9
PM	1	7
Outliers	1	2
New Interests	1	1
Networks	1	5
Leadership Perspective	1	12
Empowerment	1	9
Emotional Intel	1	26
Common Language	1	1
Assertive	1	13
5. Please briefly describe your career tr	1	80
18. Any other comments (Prompt i.e. i	1	80
17.a. If yes, please explain where and h	1	80
16.a. In what other ways are you worki	1	80
16. Do you have an example to share	1	80
14. As a Leader with a wide network of	1	80
13. Considering your career trajectory	1	80
11.a. If yes, please explain the achieve	1	80
10. What has surprised you about wha	1	80
- Text View:** A pane on the right showing a document with coded references. The document text includes phrases like 'Early days, new project giving me the opportunity to bring some new ways of doing things...' and 'By sharing my learning with others and practising the learning...'. Each reference is marked with a 'Reference X - 0.10% Coverage' label.

The bottom status bar shows 'In Nodes', 'Code Alt', and 'Enter node name (CTRL+Q)'.

SPSS Output for Q8 [Development as a Leader]

Leader with knowledge, attitude, skills and change practices to lead the NHS of the future

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.5	2.6	2.6
	Disagree	1	1.3	1.3	3.8
	Somewhat Disagree	3	3.8	3.8	7.7
	Neither Agree nor Disagree	15	18.8	19.2	26.9
	Somewhat Agree	23	28.7	29.5	56.4
	Agree	25	31.3	32.1	88.5
	Strongly Agree	9	11.3	11.5	100.0
	Total	78	97.5	100.0	
Missing	System	2	2.5		
Total		80	100.0		

Leader with a deep understanding of systems leadership, new models of care, their benefits, challenges and application

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.3	1.3	1.3
	Disagree	1	1.3	1.3	2.6
	Somewhat Disagree	2	2.5	2.6	5.1
	Neither Agree nor Disagree	13	16.3	16.7	21.8
	Somewhat Agree	21	26.3	26.9	48.7
	Agree	27	33.8	34.6	83.3
	Strongly Agree	13	16.3	16.7	100.0
	Total	78	97.5	100.0	
Missing	System	2	2.5		
Total		80	100.0		

Leader who has made an impact on healthcare through the delivery of real change

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.3	1.3	1.3
	Disagree	1	1.3	1.3	2.6
	Somewhat Disagree	10	12.5	12.8	15.4
	Neither Agree nor Disagree	13	16.3	16.7	32.1
	Somewhat Agree	24	30.0	30.8	62.8
	Agree	19	23.8	24.4	87.2
	Strongly Agree	10	12.5	12.8	100.0
	Total	78	97.5	100.0	
Missing	System	2	2.5		
Total		80	100.0		

Leader who can demonstrate confidence, resilience and the ability to lead in times of uncertainty

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.3	1.3	1.3
	Disagree	2	2.5	2.6	3.8
	Somewhat Disagree	3	3.8	3.8	7.7
	Neither Agree nor Disagree	11	13.8	14.1	21.8
	Somewhat Agree	21	26.3	26.9	48.7
	Agree	25	31.3	32.1	80.8
	Strongly Agree	15	18.8	19.2	100.0
	Total	78	97.5	100.0	
Missing	System	2	2.5		
Total		80	100.0		

Leader who effects change in multiple contexts and for multiple types of change work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.3	1.3	1.3
	Disagree	1	1.3	1.3	2.6
	Somewhat Disagree	7	8.8	9.0	11.5
	Neither Agree nor Disagree	17	21.3	21.8	33.3
	Somewhat Agree	24	30.0	30.8	64.1
	Agree	19	23.8	24.4	88.5
	Strongly Agree	9	11.3	11.5	100.0
	Total	78	97.5	100.0	
Missing	System	2	2.5		
Total		80	100.0		

Leader who is a more reflective practitioner

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.5	2.6	2.6
	Disagree	3	3.8	3.8	6.4
	Somewhat Disagree	2	2.5	2.6	9.0
	Neither Agree nor Disagree	6	7.5	7.7	16.7
	Somewhat Agree	9	11.3	11.5	28.2
	Agree	26	32.5	33.3	61.5
	Strongly Agree	30	37.5	38.5	100.0
	Total	78	97.5	100.0	
Missing	System	2	2.5		
Total		80	100.0		

Leader who is transparent and realise the importance of shared and distributed approach to leadership

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	3.8	3.8	3.8
	Disagree	1	1.3	1.3	5.1
	Somewhat Disagree	1	1.3	1.3	6.4
	Neither Agree nor Disagree	4	5.0	5.1	11.5
	Somewhat Agree	7	8.8	9.0	20.5
	Agree	35	43.8	44.9	65.4
	Strongly Agree	27	33.8	34.6	100.0
	Total	78	97.5	100.0	
Missing	System	2	2.5		
Total		80	100.0		

Further Quotes

Strategic Roles:

"I have just started as a Project lead in a pan - London improvement collaborative. I continue to co-chair HEE NCEL QI forum"

"I took an 8b Job at HEE working in an education commissioning role. After 18 months with some internal changes I was offered the opportunity to design my own role and so became deputy head of transformation. After 2 years post fellowship, as part of a consultation this job was re-banded at 8c".

Systems Thinkers for Systems Change:

"A wider appreciation of the system within which my department sits, including the challenges that others outside of my speciality face in delivering care and maintaining both safety and care within the acute hospital setting".

"Very different perspective on the NHS and my role within it. A far wider-reaching perspective that colours my decision making considerably. A far deeper understanding of health and well-being rather than the more classical 'sickness management model"

"System thinking...does make profound Change, it Needs a System Change and irrespectively of the Person, Systems will force people to behave in a certain way"

"Darzi fellowship raised my awareness of the NHS as an organisation; development and adoption/implementation of policies to effect change in the healthcare system both locally and nationally".

Competencies, Meta-Competencies & EI:

"Have a 'I can do it attitude' after learning the necessary skills to conduct QI projects".

"Definitely in how I analyse situations, critique my decision making and others".

"I think about change from the person's point of view who is going to have to go through the change".

"COMPLETELY changed my approach to my job. More inclined to question and take time to come up with alternative approaches to a problem."

"I observe things more. I try to listen more and not just give my ideas. I am more aware of unsaid dynamics in a room"

"Notice daily areas for improvement and opportunities to apply learning"

Improved Services:

“Have been able to negotiate curriculum changes to improve Pulmonary Hypertension training to healthcare professionals as UG.”

“Innovating new ways of service delivery, with a bigger picture view”

“I have supported multiple groups of students, trainees and HCPs to undertake QI work in their own contexts.”

“Implemented a change programme in my host CCG and the change is now a permanent part of the CCG”

“Developing new ways of working in hospice I work in”

“My change has been local delivery in my CCG”

“Our Darzi cohort have remained in contact via WhatsApp group and we meet at least once a year. There are numerous projects we have been working on and even collaborating on both on local and national level. Some include LAS, NHS England, telemedicine.”

“I have introduced transformational change to ophthalmology services in London.”

“Lots are involved in QI positions within trusts. Darzi 7 group keep well informed via our Whatsapp group”

Other Ways Fellows are Working to Secure Change:

“We often share success and failure tips to aid in project and change management. It is really empowering to have another Darzi share what worked and data or experiential insight”

“We continue to tap into the hive mind that is our network for anything from ideas for our work to connections with other people doing similar work form whom we can learn”

“Working with an Alternative Health Provider (AHP) and engaging with folks in the sector to raise the profile of AHP's”

“Researching in a team QMUL, BARC) working in a clinical team (Barts Health)”

References

Hersey, P., Blanchard, K.H. and Natemeyer, W.E., 1979. Situational leadership, perception, and the impact of power. *Group & Organization Studies*. 4(4) pp.418-428.

Likert Scale

Items adapted from Wasko and Faraj (2005). Items measured on a 7-point Likert-type scale (Strongly Disagree, Disagree, Somewhat Disagree, Neither Agree nor Disagree, Somewhat Agree, Agree, Strongly Agree)