

# **Evaluating the upskilling impacts of management and leadership training initiatives in the healthcare domain: Quantitative findings from a regional NHS programme**

*Paul K. Miller, Nicola S. Relph, Tom Grimwood & Elaine Crooks*

## **Affiliations**

1. Dr. Paul K. Miller, Senior Lecturer, Department of Medical & Sport Sciences, University of Cumbria / Academic Lead, HASCE, University of Cumbria.
2. Nicola S. Relph, Lecturer, Department of Medical & Sport Sciences, University of Cumbria / Senior Analyst, HASCE, University of Cumbria.
3. Dr. Tom Grimwood, Senior Lecturer, Department of Rehabilitation and Social Work, University of Cumbria / Associate Academic Lead, HASCE, University of Cumbria.
4. Elaine Crooks, Leadership and Management Programme Development Lead, Learning Network, Cumbria Partnership NHS Foundation Trust.

**Corresponding Author:** Dr. Paul K. Miller, [paul.miller@cumbria.ac.uk](mailto:paul.miller@cumbria.ac.uk)

**Keywords:** Education; Evaluation; Healthcare; Leadership; Learning; Quantitative Methods; Training.

## **Abstract**

This paper reports key quantitative survey results from a broader evaluation of the “Foundation in Management and Leadership” (FIM) programme run by Cumbria Partnership NHS Foundation Trust during 2012 and 2013. Using a large-scale quantitative survey, administered before and after the intervention, changes in a range of leadership skills and knowledges are measured. Results indicate a strong level of improvement across many key indicators among participants, and thus a high level of success for the intervention itself.

PRE-REVIEW DRAFT

# **Evaluating the upskilling impacts of management and leadership training initiatives in the healthcare domain: Quantitative findings from a regional NHS programme**

*Paul K. Miller, Nicola S. Relph, Tom Grimwood & Elaine Crooks*

## **Introduction**

The Foundations in Management (henceforth FIM) programme was developed from a strong evidence-base within Cumbria PFT “...to build the foundations of effective management by setting the context of the organisation, providing essential practical skills, knowledge and behaviours...” (Cumbria PFT, 2012, p.3) requisite for the performance of day-to-day operational roles within an enlarged organisation<sup>1</sup> facing a challenging NHS climate, the demands of increasing quality with reduced financial income, and recurrent negative findings from staff satisfaction surveys (Cumbria PFT, 2014).

## ***The Programme***

Combining theoretical perspectives, practical organisational knowledge and structured reflective learning, the overall stated aims of the programme were to provide participants with an enhanced understanding of the scope of the PFT itself, of self and responsibility in relation to individual roles and the vision and values of the PFT (and how these apply to particular service areas and roles). It was also designed to help participants develop their knowledge of, and practical essential skills in, the undertaking of operational roles, and

---

<sup>1</sup> Mental Health and Learning Disabilities Services had merged with Community Provider Services some 10 months prior to the beginning of the FIM programme, and “...the scale of [the] Trust has increased by 300% from [its] FT inception in 2007.” (Cumbria PFT, 2014, p.6).

encourage a broad perspective upon the leadership approaches necessary to encourage self- and team- development.

Specifically designed, thus, to provide insight into participants' leadership styles, and to provide opportunity for participants to develop confidence in management and team-working, the programme comprised an introductory day followed by four sequentially-ordered modules:

1. Understanding the Organisational Context;
2. Self-Awareness and Leading for Professional and Personal Growth;
3. Service Quality and Performance;
4. Practical Management of Teams.

Consequently, the intended outcomes for participants were stated as (Cumbria PFT, 2012, p.4):

- “Knowledge and practical skills to undertake your operational management role with greater confidence;
- Insight into your leadership style and the impact of behaviours on your team and colleagues;
- Development of self-awareness;
- A deeper understanding of quality and performance measures and why they are needed to build a successful health care organisation;
- Clarity of your role and influence within the service and wider organisation.”

### ***Evaluation***

The evaluation<sup>2</sup> was commissioned by the Cumbria PFT and executed by Health and Social Care Evaluations (HASCE) at the University of Cumbria. In its totality, it explored all aspects of the FIM programme via a range of different collectors, including session feedback (qualitative and quantitative), participant interviews regarding their experience of the programme, interviews with managers of participants to assess third-party views on workplace impacts and a two-tranche survey designed to assess longitudinal change in participants' knowledge and aptitudes as managers and leaders. This paper reports only key findings from the latter. The specific aim of this aspect of the evaluation was to compare the opinions of participants both pre and post FIM programme. The content of these opinions were two-fold covering both evaluation of management and delivery of the programme and development of the participants' leadership skills. It was hypothesised the participants' perceptions of their leadership and management skills *in the workplace* would improve, post-FIM programme, relative to their more general, stable self-image.

## **Method**

An online survey, using the Bristol Online Surveys (henceforth BOS) system, was designed to provide an initial and post-hoc analysis of the demographic characteristics and self-evaluations of the participating cohort, and thereby to monitor change and impact over the duration of the FIM itself. The first tranche of data was collected in September 2012, the second in July 2013.

## ***Participants***

---

<sup>2</sup> A full copy can be obtained from the authors.

Of the total number of participants in the programme (N=100), all were invited to complete to online survey via email. The response rate was 88% in tranche 1, and 62%<sup>3</sup> in tranche 2, with a demographic breakdown as shown in Table 1.

TABLE 1 HERE

The distribution of roles within this population, in terms of part and full time work, years of service and clinical and non-clinical professions, meanwhile, is shown in Table 2.

TABLE 2 HERE

### ***Procedure***

The survey was designed to account for three key issues: The specific information required by Cumbria PFT itself, the need to produce comparable, longitudinal data across two survey tranches (pre-FIM and post-FIM), and the core methodological imperatives outlined in prior survey work on management and leadership, most notably those arising from the established Multifactorial Leadership Questionnaire (see Bass & Riggio, 2006). As such, an inventory of 57 questions, in a five-section format, was employed to explore the following major themes:

---

<sup>3</sup> Although still a perfectly feasible sample from which to draw inference, the lower response rate in the second tranche is likely an output of the mid-summer (i.e. holiday season) timing.

- Participants' demographic details and role outlines.
- Participants' self-evaluation of pertinent managerial skills and knowledge in general life settings.
- Participants' knowledge of Cumbria PFT's organisational structures and vision.
- Participants' self-evaluations of their specific skills in managing, and being managed, in their NHS role.
- Participants' overall appraisals of themselves as managers within the NHS, and of the programme itself.

The 48 self-evaluative questions were measured using ten-point Likert scales to assess levels of agreement with given statements, and ten-point rating scales on which participants could provide assessments of their own levels of skill or knowledge in given fields. Ten-point scales were preferred to more familiar five-point models in order to provide greater sensitivity of measurement in subsequent analysis of longitudinal change (De Vaus, 2002).

### *Analysis*

A full suite of descriptive statistics was initially run on each individual question and, following consideration of the data, post-coding was executed on three variables to facilitate statistical analysis. Number of years working for the NHS was grouped into 1-10 years, 11-20 years, 21-30 years and more than 30 years. Number of years working in a managerial position was grouped in to greater or less than 10 years. Number of people currently managed was grouped in to 1-10 people, 11-20 people, 21-30 people and greater than 30 people. Three different aspects of participants' self-assessments were then explored:

#### *1. Participant aptitude analysis*

Eleven basic analytic categories, sensitive to the stated aims and objectives of the intervention (listed above) were derived from direct and combined ratings of ‘general’ skills, attitudes and knowledge - assertiveness, confidence, communication, listening, numeracy, time management, conflict-management, comfort with change, team-playing, independent decision-making and respect of authority. Nine analytic categories (shown in Table 3, below) were derived from compounds of variables describing a range of pertinent practices at work<sup>4</sup>.

TABLE 3 HERE

“General” categories were then recombined for comparison with those nine specifically manifesting within workplace environments to assess whether participants viewed themselves as, for example, more or less assertive in their broader lives than in their professional roles, and how these issues vary according to gender, experience, role factors and so forth. These findings were then compared between tranches 1 and 2 to assess statistically significant differences (i.e. changes) over the duration of the FIM programme.

Furthermore, participants were asked to assess their ability to balance their working roles (i.e. the managerial and the operational aspects of their job) via the simple Yes/No question “Do you feel that you are able to effectively balance the operational and managerial aspects of your role?” Findings from tranches one and two were compared.

## *2. Participant knowledge analysis*

---

<sup>4</sup> E.g. ‘Role Openness’ being formed out of combined results from four questions on capacity to listen, and given/received respect.



Participant self-ratings (/10) relating to three aspects of organisational knowledge were descriptively analysed:

1. Understanding of services within Cumbria PFT;
2. Understanding of Quality performance measures used within Cumbria PFT, and;
3. Understanding of Cumbria PFT's Organisational vision, strategy and business plans.

Descriptive findings were also compared between tranches 1 and 2 to assess statistically significant differences (i.e. changes) over the duration of the FIM programme.

## **Results**

### ***Aptitudes and change***

Self-characteristic variables (n=11) and role-characteristic variables (n=9) were checked for normality. As not all variables followed a normal distribution, non-parametric two-related variable tests (Wilcoxon matched-pair signed-rank test) were used to compare differences between self-scores and role-scores. The accepted alpha level was adjusted using a Bonferroni correction, (0.05 / number of comparisons) which reduced the accepted significance level to  $p < 0.005$  (0.05/10). None of the “general” self-ratings were significantly different between the two surveys; in short, the participants rated their qualities *outside* of the workplace in much the same way before and after the intervention. As such, these measurements provide a consistent baseline against which professional change can be observed. Findings are summarised in Table 4.

TABLE 4 HERE

These findings are particularly striking, indicating that during the course of the FIM five of the key measures moved rightwards across the table, while the two already on the right remained unchanged. In the cases of self-positivity and satisfaction, the measures moved all the way across the table; participants in tranche 1 were more satisfied and positive about themselves in general, while in tranche 2, they were now *more* so at work. Only confidence (no significant difference), resource management and conflict management (stronger in general) remained unchanged when changes were possible. It should be further noted that these measures did not trend with any key demographic variables.

In terms of aptitude for role-balancing, it is clearly evident from an inspection of Figure 1 that a significant shift in this capacity also took place during the course of the FIM, with a substantially greater proportion of the participant sample (79.19%) viewing themselves capable of achieving this balance post-FIM than did so beforehand (57.95%).

FIGURE 1 HERE

### ***Knowledge***

A tranche-to-tranche comparison of role-balance assessments (i.e. participants' capacity to balance managerial and operational aspects of their roles), meanwhile, can be seen in Figure

2.

FIGURE 2 HERE

Comparing knowledge-related findings between the tranche 1 and tranche 2 results revealed statistically significant improvements in all three of the specified domains. As further evidenced in Figure 2, these improvements are relatively substantial. In terms of knowledge of services within Cumbria PFT, for example, the mean self-rating rises from 6.01 to 7.19; a relative increase of very nearly 20%. Knowledge of measures and organisational vision, meanwhile, show relative improvements of an even greater order (22.4% and 28.3% respectively).

In tranche 1, there was a significant difference between clinical staff and non-clinical staff, with the latter rating their knowledge in all three domains more highly. In tranche 2, however, these knowledge measures did not trend with any key demographic variables, indicating a relatively greater improvement in organisational knowledge for clinical staff.

## **Discussion**

There has been a strong relationship reported between leadership capability and performance in healthcare professions (NHS Leadership Academy, 2014). Indeed there has been a shift away from traditional notions of “management” policy in England’s NHS in recent years, and greater focus on the importance of personal leadership qualities (Hewison and Griffiths, 2004). Indeed, a recent study by McDonald (2014) highlighted the need for greater understanding and evaluation of leadership programmes to ensure future investment on successful training.

The aim of this particular investigation was to evaluate the impacts of Cumbria PFT's FIM programme on participants' leadership and management skilling. Respondents were asked to self-rate in terms of confidence, assertiveness, communication skills, openness, conflict management skills, resource management skills, personal satisfaction, personal conflict management, positivity in self-image and positivity in perception of others' views. Prior to the inception of the FIM, the participants overwhelmingly rated their skills and aptitudes as stronger in general life than in their professional roles. Only openness and conflict management skills were deemed stronger in the workplace. Assertiveness and confidence were rated as roughly equivalent in both domains.

Following participation in the FIM, only resource management and conflict management were rated more strongly outside of the workplace, with confidence, communication skills and positivity showing no overall difference between domains. All other aptitudes were then rated more highly in the workplace. These aptitude changes did not trend with any key demographic variables. Moreover, a significant shift in perceived capacity to balance the managerial and operational aspects of professional roles took place during the course of the FIM. A substantially greater proportion of the participant sample (79.19%) achieved this balance post-FIM than did so beforehand (57.95%). Pertinently, a comparable evaluation by Cunningham and Kitson (2000a, b) of an 18 month nursing leadership programme, concluded there was a need for more development activity, but also that well-designed training induced significant improvement in these exact forms of leadership capability among ward sisters and senior nurses and, hence, improvements in patient care. In a comparative vein, Carr *et al.*, (2009) reported the success of a leadership programme in the sphere of health improvement work, in which participants reported an increase capacity for self-reflection, an energising effect, an increased political astuteness and, again, confidence

as leaders, enhances strategic thinking abilities, greater awareness of health improvement tools and an enhanced evidence base for practice.

Participants were also asked to rate their knowledge and understanding of Cumbria PFT's organisational structure pre- and post-FIM. Pre-FIM, participants rated their knowledge of Cumbria PFT's services (mean=6.01) most highly, with measures and vision both rated between 5 and 6. There were no variations in knowledge ratings according to gender, age, experience, full-time or part-time status, or number of people managed. There was, however, a significant difference between clinical and staff and non-clinical staff, with the latter rating their knowledge in all three domains more highly in tranche 1. This is likely an output of the non-clinical staff having worked more extensively *across* the trust's pre-merger legacy bodies, while clinical staff would have been more discreetly located within the old PCT. Post-FIM ratings increased significantly in all three domains (knowledge of services, measure and organisational vision). In terms of knowledge of services within Cumbria PFT, the mean self-rating rose to 7.19; a relative increase of very nearly 20%. Knowledge of measure and organisational vision, meanwhile, show relative improvements of an even greater order (22.4% and 28.3% respectively).

Edmonstone and Jeavons (2000) reported a comparable order of success in an NHS leadership programme conducted in the North of England. As reflected above, the primary findings of their evaluation were that participants found greater confidence to delegate roles, and to assertively plan for the future as a result of better fundamental institutional grasp. Similarly, Werrett *et al.*, (2002) completed a large scale evaluation of a healthcare leadership programme in the West Midlands. Again, the overall results were positive, and the programme was recognised as useful to participants who developed a range of new skills within and, crucially, knowledge *of* their professional environment.

As a footnote to these findings, one should, of course, exercise caution when approaching any survey statistics, being mindful of key issues of internal validity. These findings discussed above show that, while participants remained stable in their general self-assessments, their workplace-based self-assessments improved substantially (and in some cases dramatically) during the course of the FIM. These improvements were widespread across the whole diverse cohort, which indicates that the FIM itself was likely a major factor in this improvement. It does not, however, preclude the possibility that a range of other factors were in play at the same time, with their own impacts on participant aptitudes.

## **Conclusion**

There is strong evidence to suggest that NHS leadership programmes, in general, have been successful in progressing and improving leadership skills. Participants in the current evaluation reported an improvement in confidence, communication skills, positivity, satisfaction, self-image and positivity following leadership training. They also felt they had improved their knowledge of the organisation. Therefore, it can be surmised that FIM created a platform for team development between staff from different services, building on a sense of shared purpose and understanding of contribution to the wider organisational strategic goals. In these terms, the FIM programme was manifestly successful in achieving a number of its key aims.

## **References**

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Carr, S.M., Lhussier, M., Reynolds, J., Hunter, D.J. & Hannaway, C. (2009). Leadership for health improvement – implementation and evaluation. *Journal of Health, Organization and Management*, 23(2), 200-215.

Cumbria PFT. (2012). *Foundation in leadership and management programme specification*. Cumbria, UK: Cumbria PFT.

Cumbria PFT. (2014). *Strategic Plan, 14-19*. Cumbria, UK: Cumbria PFT.

Cunningham, G. & Kitson, A. (2000a). An evaluation of the RCN clinical leadership development programme: part 1. *Nursing Standard*, 15(12), 34-37.

Cunningham, G. & Kitson, A. (2000b). An evaluation of the RCN clinical leadership development programme: part 2. *Nursing Standard*, 15(13), 34-40.

De Vaus, D. (2002). *Surveys in social research* (5th ed.). London: Routledge.

Hewison, A. & Griffiths, M. (2004). Leadership development in health care: a word of caution. *Journal of Health Organization and Management*, 18(6), 464-473.

McDonald, R. (2014). Leadership and leadership development in healthcare settings – a simplistic solution to complex problems? *International Journal of Health Policy and Management*, 3(5), 227-229.

NHS Leadership Academy: <http://www.leadershipacademy.nhs.uk/about/>

Werrett, J., Griffiths, M. & Clifford, C. (2002). A regional evaluation of the leading empowered organisation leadership programme. *NTRResearch*, 7(6), 459-70.

## Tables and figures

*Table 1: Core population description*

Variable.	Survey 1	Survey 2
Gender.	Female= 78 (88.6%) Male = 10 (11.4%)	Female= 56 (90.3%) Male = 6 (9.7%)
Age.	Range = 24 years to 61 years Mean age = <b>42.3 years</b>	Range = 25 years to 62 years Mean age = <b>44.4 years</b>
NHS Grade.	Grade 4 = 2 (2.6%) Grade 5 = 6 (6.8%) Grade 6 = 37 (42%) Grade 7 = 41 (46.6%) Grade 8 = 2 (2.3%)	Grade 4 = 2 (3.3%) Grade 5 = 3 (4.8%) Grade 6 = 26 (41.9%) Grade 7 = 28 (45.2%) Grade 8 = 3 (4.8%)

*Table 2: Professional role breakdown*

Variable.	Survey 1	Survey 2
Role status.	Part-time = 24 (27.3%) Full-time = 64 (72.7%)	Part-time = 16 (25.8%) Full-time = 46 (74.2%)
Role type.	Clinical = 62 (70.5%) Non-Clinical = 26 (29.5%)	Clinical = 39 (62.9%) Non-Clinical = 23 (37.1%)
Years worked in NHS.	Range = 1 to 40 years Mean duration of service = <b>15.84 years</b>	Range = 3 to 41 years Mean duration of service = <b>17.50 years</b>
Years worked in NHS management.	Range = 0 to 26 years Mean duration of service = <b>4.49 years</b>	Range = 0 to 24 years Mean duration of service = <b>5.34 years</b>
Number of people managed by participant.	Range = 0 to 61 persons Mean number managed = <b>11.36</b>	Range = 0 to 40 persons Mean number managed = <b>10.63</b>



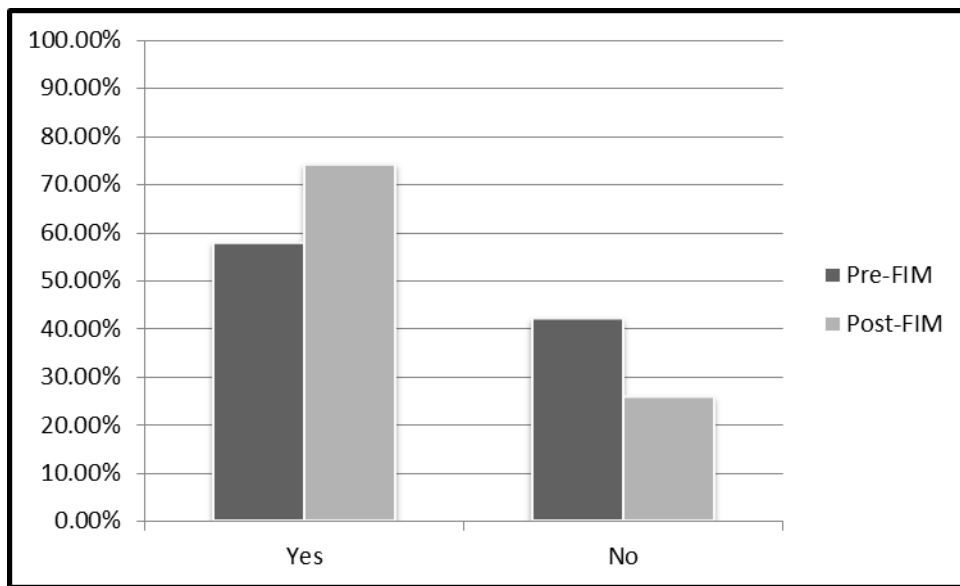
*Table 3: Analytic categories used in survey*

<b>Analytic Category</b>	<b>Description</b>
<b>Assertiveness</b>	Capacity to be assertive with others.
<b>Confidence</b>	Faith in own ability to execute tasks effectively.
<b>Openness</b>	Capacity to respect and listen to others.
<b>Communication</b>	Outcomes from effective communication with others.
<b>Resource Management</b>	Capacity to utilise time, money and information effectively.
<b>Satisfaction</b>	General comfort with status quo.
<b>Conflict management</b>	Capacity to negate or deal with conflict.
<b>Self-Positivity</b>	Contentment with performance.
<b>Other-Positivity</b>	Positive view of how self is seen by others.

*Table 4: Aptitudes and change – comparison*

<b>Aptitude.</b>	<b>Stronger in General</b>	<b>No Statistically Significant Difference</b>	<b>Stronger in Professional Role</b>
<b>Assertiveness</b>		A	Ω
<b>Confidence</b>		A Ω	
<b>Openness</b>			A Ω
<b>Communication</b>	A	Ω	
<b>Resource Management</b>	A Ω		
<b>Satisfaction</b>	A		Ω
<b>Conflict management</b>	A Ω		
<b>Self-Positivity</b>	A		Ω
<b>Other-Positivity</b>	A	Ω	
<b>A = Tranche 1; Ω = Tranche 2</b>			

**Figure 1: Role balance - comparison**



**Figure 2: Organisational knowledge - comparison; data presented as means, error bars denote standard deviations**

