Leadership in Health Services

Workplace-based clinical leadership training increases willingness to lead: Appraisal using multisource feedback of a clinical leadership program in regional Victoria, Australia

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Appraisal using multisource feedback of a clinical leadership program in regional Victoria, Australia

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Abstract

Purpose – The purpose of this paper is to reflect upon a workplace-based, interdisciplinary clinical leadership training programme (CLP) to increase willingness to take on leadership roles in a large regional health-care centre in Victoria, Australia. Strengthening the leadership capacity of clinical staff is an advocated strategy for improving patient safety and quality of care. An interdisciplinary approach to leadership is increasingly emphasised in the literature; however, externally sourced training programmes are expensive and tend to target a single discipline.

Design/methodology/approach – Appraisal of the first two years of CLP using multiple sourced feedback. A structured survey questionnaire with closed-ended questions graded using a five-point Likert scale was completed by participants of the 2012 programme. Participants from the 2011 programme were followed up for 18 months after completion of the programme to identify the uptake of new leadership roles. A reflective session was also completed by a senior executive staff that supported the implementation of the programme.

Findings – Workplace-based CLP is a low-cost and multidisciplinary alternative to externally sourced leadership courses. The CLP significantly increased willingness to take on leadership roles. Most participants (93 per cent) reported that they were more willing to take on a leadership role within their team. Fewer were willing to lead at the level of department (79 per cent) or organisation (64 per cent). Five of the 11 participants from the 2011 programme had taken on a new leadership role 18 months later. Senior executive feedback was positive especially around the engagement and building of staff confidence. They considered that the CLP had sufficient merit to support continuation for at least another two years.

Originality/value – Integrating health-care professionals into formal and informal leadership roles is essential to implement organisational change as part of the drive to improve the safety and quality of care for patients and service users. This is the first interdisciplinary, workplace-based leadership programme to be described in the literature, and demonstrates that it is possible to deliver low-cost, sustainable and productive training that increases the willingness to take on leadership roles.

Keywords Health leadership initiatives, Leadership, Health services sector, Education, Employees

Paper type Research paper

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Introduction

A twenty-first century health-care system must respond to the reality of patient harm and deficits in quality of care (Institute of Medicine, 2000). Transforming health-care systems to improve patient safety and quality of care requires engagement and leadership on the part of all clinical staff (Künzle *et al.*, 2010, Fulop and Day, 2010, Botwinick *et al.*, 2006, Swanwick and McKimm, 2011, Kabir *et al.*, 2008, Davidson *et al.*, 2006, Ezziane, 2012, Jones, 2008). Health-care services, therefore, face the dual challenge of enhancing clinical leadership "at the coalface" and attracting clinical staff to formal management roles. In both cases, development (Bass and Avolio, 1994) of the leadership capacity and skills is essential.

Models of leadership in health-care

Many conceptualisations of leadership exist, and these are constantly evolving (Box 1). Swanwick and McKimm (2011) provide a useful introductory overview.

In the health-care context, transformational, distributive and systems-based leadership are important models. The considerable autonomy of clinical staff necessitates leadership "at all levels", as characterised by distributed models (Bolden, 2011). The need for mobilisation of staff and implementing change calls for a transformational style (Burns, 1978, Bass and Avolio, 1994). Systems-based models are appropriate and important for developing the health-care organisation (HCO) as a whole (Osborn *et al.*, 2002).

Clinical leadership training

Education and training is increasingly emphasised to develop the knowledge and skills of clinical leadership (Long *et al.*, 2011). The National Health Service is embedding the Medical Leadership Competency Framework at all levels of clinical education in the UK (Long *et al.*, 2011). However, leadership training is not yet a routine component of the graduate health professional's curricula in Australia or other modern health systems.

International trends in leadership training align with the contemporary leadership theories. Transformational leadership encourages collaboration and integration.

Box 1. Definitions and models of leadership

Leadership, management and administration are distinct concepts that are often misunderstood and used interchangeably. Management and administration concern co-ordination of resources and function, and are generally the responsibility of formalised senior roles within a workplace hierarchy.

Leadership aims to set direction, influence people and manage change; it is necessary for good management, but extends beyond formal roles (Swanwick and McKimm, 2011).

Transformational leadership (Bass and Avolio, 1994, Burns, 1978) defines leadership in terms of motivation and development of followers to implement change. It is distinguished from transactional models, which focus on achieving goals within the culture of an organisation.

Distributed, collaborative and emergent models of leadership separate the concept of leadership from that of organisational hierarchy (Bolden, 2011). They describe leadership as an interaction between leaders, followers and situation.

Models based on systems and complexity theory consider organisational factors that promote or inhibit leadership behaviour (Osborn *et al.*, 2002).

Distributed models recognise the leadership contribution of all staff, and systems-based models emphasise on organisational culture and relationships. Thus, a workplace-based interdisciplinary model is called for (Hewison and Griffiths, 2004, Swanwick and McKimm, 2012, Cooper, 2003, Gosling and Mintzberg, 2004).

However, few such leadership training programmes have been developed for clinicians (Kabir *et al.*, 2008). In the health-care sector, most leadership training programmes are external to the organisation and focus on developing leadership capacity in an individual, often within a single health-care discipline (Pearson *et al.*, 2006, Kabir *et al.*, 2008, Stoll *et al.*, 2011, Fernandez and Fellow-Smith, 2011, Klaber *et al.*, 2008, Miller and Dalton, 2011).

These formal, university-based courses are also expensive. Costs include substantive enrolment fees, time away from the workplace and the need to replace the staff attending the course. Direct costs and tight workforce resources limit the number of staff able to attend.

More accessible and inclusive clinical leadership training programmes are called for. Ideally such programmes should be delivered in-house, at a low cost, for health professionals at the "frontline" of patient care.

These new clinical leadership programme (CLP) must also incorporate the principles of adult learning. That is, the learners are autonomous and self-directed, and learning is problem-centred and relevant to the learner's immediate goals (Kaufman, 2003). A mix of theoretical and project-based learning is an appropriate approach (Stoll *et al.*, 2011, Fernandez and Fellow-Smith, 2011, Pearson *et al.*, 2006).

Based on these principles, we developed an in-house multidisciplinary CLP. The objective of the CLP was to provide an effective educational training programme that fostered leadership capability, encouraged uptake of leadership roles and was feasible within our existing resources. The present paper describes the development of the programme and reports the feasibility and effectiveness of this model.

Aim

To appraise whether an in-house CLP is feasible and effective.

The CLP educational goal was to foster leadership capability and encourage engagement of staff in decision-making within their team and department.

Method

Programme development

The programme was developed by the clinical director of subacute services based on: his academic, postgraduate teaching experience (15 years); local knowledge of the HCO (4 years); a review of an existing jurisdictional leadership programme (Department of Health, 2013); and content from a contemporary, standard textbook of leadership.

The goals of the programme were: to provide an introduction to clinical leadership; to develop participants knowledge and skills of leadership, strengthen multidisciplinary teamwork and self-directed learning, thus building confidence in areas outside of direct patient care; to increase involvement and effective engagement within working groups and committees; and encourage participants to consider more formal training and qualification or uptake of formal leadership positions.

The pilot CLP was developed and delivered in 2011. Feedback from participants and their respective managers was used to revise the CLP for 2012. Changes included a move

to self-nomination of participants, allocated time for group work and the inclusion of speakers from within the HCO.

Programme elements

The framework for appraisal considered three aspects of the CLP, leadership development, multidisciplinary teamwork and leadership learning (Figure 1).

The key elements of the CLP programme were: one 2-hour session on-site once per month for nine to ten months (equivalent to 20 hours), with a guest speaker and group discussion; one self-organised external site visit and one mini-project, both completed in small, interdisciplinary groups; and a presentation to peers and executive staff of their learning from the site visit and the mini-project. Nine on-site sessions were completed in the pilot programme. In the second round, an additional session was added that consisted of a formal and detailed orientation to the CLP, and time for participants to introduce and become familiar with each other. Materials were a CLP course guide produced by the organisation (Table I) and a standard concise clinical leadership textbook.

There was no summative assessment, nor the ability to award a formal qualification. This was a deliberate choice to minimise apprehension and optimise participant engagement.

Speakers included: current leaders within the HCO as well as external experts and leaders from government, academic and not-for-profit sectors (Box 2).

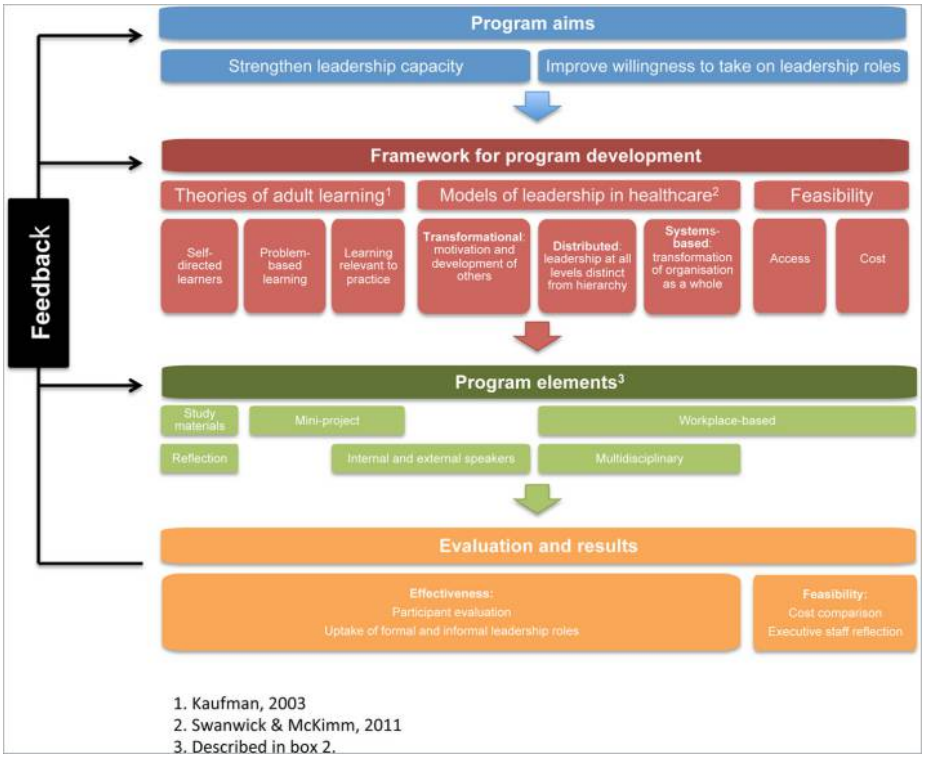

Figure 1.
Research model

Programme aims: strengthen leadership capacity; increase willingness to take on leadership roles		
Framework	Programme elements	Evaluation and results
	Expressions of interest sought	
Adult learning theory: self-directed learning	Application required to discuss with line manager and obtain their support	**Participant follow-up:** self-nomination increased engagement
Transformational leadership: motivation	Personal undertaking that the participant is aware of the attendance and course content requirement	**Executive reflection:** importance of line-manager support
Feasibility: minimal disruption of usual care delivery		
	Face-to-face sessions	
Adult learning theory: timing and setting allows time for self directed learning. Immediate relevance to practice	One 2-hour session per month for ten months (mid-afternoon)	**Participant evaluation:** high satisfaction among participants regarding mix of external and internal speakers
Transformational leadership: motivation, inspiration (guest speakers)	Located on-site and chaired by one or both programme co-ordinators	**Executive reflection:** project worthwhile and feasible to continue for minimum two years
Distributive and systems leadership: trust, teamwork (Chatham House Rules)	A guest speaker currently employed in an executive or management leadership role presented and facilitated learning	**Cost comparison**: estimated savings: A$2,300 plus 36 working hours per participant
Feasibility: access for staff, no travel time, minimal time away from usual care delivery	Chatham House Rules (sometimes referred to "Las Vegas" Rules) "What is said in the room stays in the room"	
	Materials	
	CLP course guide	
	Standard concise clinical leadership textbook	
	Individual and group based learning	
Distributed and systems models of leadership: co-operation, trust, support, development of inter-disciplinary relationships	Small, inter-disciplinary groups (four to seven members per group)	**Participant evaluations:** opportunities to develop interdisciplinary relationships highly valued

Table I.
CLP: Conceptual framework's relationship to programme elements and evaluation

(*continued*)

Programme aims: strengthen leadership capacity; increase willingness to take on leadership roles		
Framework	Programme elements	Evaluation and results
	External site-visit	
Adult learning theory: self-directed learning, problem-based, learning directly relevant to immediate goals	Participant selected the theme and site or organization self-directed and negotiated within allocated small group	**Participant evaluation:** site-visits and mini-projects were considered logistically challenging
	Mini-project	
As above	Mandatory requirement was completion of a specific initiative to improve patient care Topic relevant to participants' clinical practice Negotiated within their allocated small group	
	Formal presentations and reflection of learning	
Transformational leadership: leadership and development between peers	Conducted as the final teaching session Peers and executive staff in attendance	**Participant evaluation:** time for reflection on clinical practice highly valued

Table I.

Setting

Subacute clinical service of Geriatric, Rehabilitation and Palliative Care Medicine (65 inpatient beds) located at a large regional health service in Victoria, Australia. The HCO also operates over 200 acute inpatient beds, with a large emergency department and intensive care unit with acute medical, surgical, paediatric and maternity and mental health services. The annual patient throughput in 2012 was over 30,000 inpatient separations.

Participants

Participants within both rounds of the programme (Table II) included medical, nursing and allied health professionals (AHPs) who were currently employed within the health service setting described. In 2011, 17 participants were enrolled. Enrolment was by nomination by senior executive staff. The executive director, director of nursing and medical director, in consultation with their senior managers, directly identified staff to participate within the pilot CLP.

In 2012, 22 participants were enrolled. Recruitment was by self-nomination. Staff were invited to self-nominate either by email or by word of mouth.

In both rounds of the CLP, participants worked at non-executive middle or senior levels within the HCO. Some were in emerging leadership positions (e.g. Nurse Unit Manager and senior clinical physiotherapist). As expected. the majority (32/39) were female, which is consistent with the health workforce distribution. In each round of the programme, nursing staff represented the highest number of participants followed by AHPs and medical staff, respectively.

Box 2. Speakers and topics presented

(1) Speakers
- Internal
  - Members of executive staff.
  - Clinical leaders, e.g. departmental clinical directors.
  - Human resources managers.
- External
  - Executive staff of national not-for-profit health organisation and Department of Health.
  - Senior quality improvement managers from public and private sectors.
  - Academics and researchers (patient safety, human factors).
  - Experts and leaders in non-clinical, non-health fields (forensic medicine, law and public policy).

(2) Topics
- How things work at the HCO.
  - Management structure and lines of communication.
  - Accessing and using existing resources: team, department and organisation.
  - Accessing data: reporting systems.
- Health care now and in the future
  - Context of our working environment.
  - Community and patient demand, aging population and chronic disease.
  - Funding and resources.
  - Loci of control for patient care and changing practice.
- Leadership and patient safety, quality of care and clinical errors
  - Leadership styles.
  - Personality, culture and motivation.
  - Leadership's influence on teams, departments and organisations.
- Complex systems: failures in organisations, clinical departments, inpatient wards and programme
  - Reasons for systems failures, the established common causes of errors.
  - Learning lessons from others.
  - Learning lessons from our own data systems.
  - Root cause analysis and other methods for investigating adverse events and assessing the quality of care.
- Communication: effects on organisation, staff, patients and families
  - Identifying and overcoming barriers to change.
  - Implementing effective clinical governance, quality and clinical risk management systems.

- Accessing and using existing resources
  - Department of Health, professional associations, regulatory authorities, other national and international resources (national health and medical research council (NHMRC), Australian centre for evidence based aged care (ACEBAC), Cochrane, agency for healthcare research and quality (ARQH), veterans affairs national center for patient safety (VANCPS), RAND corporation, etc.).
- Engaging patients, families and care-givers to improve quality and safety of clinical care teams and teamwork
  - Developing negotiation skills.
  - Identifying and managing interpersonal issues.
  - Personality types and team roles.
- Overarching themes
  - Managing interpersonal conflict.
  - Approach to participating on committee or working group or.
  - Managing change.

Year	Profession	Enrolled	Completed	
2011				
Nursing	9	(9F, 0M)	5	(5F, 0M)
Medical	3	(1F, 2M)	2	(0F, 2M)
Allied health	5	(4F, 1M)	4	(4F, 0M)
Total	17	(14F, 3M)	11	(9F, 2M)
2012				
Nursing	10	(9F, 1M)	8	(7F, 1M)
Medical	3	(2F, 1M)	3	(2F, 1M)
Allied health	9	(7F, 2M)	9	(7F, 1M)
Total	22	(18F, 4M)	20	(16F, 3M)

Notes: F = female; M = male

Table II. Participant characteristics 2011 and 2012

A post-CLP reflective appraisal was completed by the clinical director, executive director and director of nursing.

Appraisal

The multi-source appraisal was collated and supplemented approximately six months after completion of the 2012 programme (June to July 2013). Feedback data were gathered using three sources:

(1) a structured evaluation survey questionnaire that was completed by participants in the 2012 programme, and used closed-ended questions graded using a five-point Likert scale, also allowing space for general comments;

(2) a post-CLP reflective session that was completed by senior executive staff who supported the implementation of the CLP in both rounds; and

(3) follow-up of the participants involved in the 2011 programme to identify leadership roles they had taken on within 18 months of completing of the course.

Appraisal was structured around the research aims to assess the feasibility and effectiveness of the programme, as defined below.

Feasibility was defined as "possible and practical to do easily or conveniently". We intended this to take into consideration: cost to the organisation, staff time, availability of external speakers and to be of minimal disruption to the delivery of clinical services. This was measured in the calculation of cost and through reflective feedback from executive staff.

Effectiveness was defined based on two factors:

(1) Participants developing their knowledge and skills of leadership, multidisciplinary teamwork and self-directed learning; and

(2) The course was valued by staff and increased the participant's willingness to take on leadership roles.

Effectiveness was measured by self-report in the staff survey. Uptake of leadership roles during follow-up was used as a surrogate measure for increased leadership capacity.

Ethics

This study was granted exemption from the institutional ethics committee, as it posed negligible risk to patients and staff and was considered to form part of the HCO's standard education evaluation.

Results

In February 2011, 17 participants were enrolled by their supervising managers. Just over half (11/17, 65 per cent) completed the programme: two medical staff, five nurses and four AHPs. Those that completed the programme attended an average of 73 per cent of on-site sessions (approximately 7/9 sessions).

In February 2012, 22 participants self-nominated and were enrolled, of which 20 (91 per cent) completed the programme: 3 medical practitioners, 8 nurses and 9 allied health. Participants attended an average of 80 per cent of on-site sessions (8/10).

Participant projects and site visits

Participant-organised site visits included: a private health-care provider with high staff retention rates, a large manufacturing company and an interstate hospital (via teleconference). Participants used the site visits to discuss: workplace culture, staff retention and recruitment and specific programmes that could enhance patient safety and quality of services.

Group-based projects included: investigating use of a validated questionnaire to assess psychosocial impact of amputation (TAPES-R), assessment of the introduction of interdisciplinary bedside rounds in an acute geriatric medicine ward, improving the referral process from acute to subacute care, and preparing a presentation to peers on the effect of adopting a workplace culture for improving safety and quality within the workplace.

Programme effectiveness

Participant evaluation of the CLP: learning, value and willingness to take on leadership roles (2012 cohort). Of the 20 participants, 14 (70 per cent) completed the CLP evaluation survey (Table III). Respondents reported the duration of individual sessions and the programme as a whole to be "just right" and were overwhelming positive about the quality of information, the speakers and the value of the programme.

All respondents "strongly agreed" or "agreed" that the programme "changes my approach to improving practice in our healthcare". The respondents' willingness to take on a leadership role was greatest if it was within their team, with nearly all (13/14, 93 per cent) respondents stating that they "strongly agree" or "agree". In contrast, just over half were willing to do so within the organisation (9/14, 64 per cent).

Duration	"Much too short" or "a little too short" N	(%)	Just right	(%)	"A little too long" or "much too long"	
Session length (2 hours)	0		14	(100 per cent)	0	
Programme length (12 months)	1	(7 per cent)	13	(93 per cent)	0	

Information provided was	"Strongly agree" or "Agree" N	(%)	Undecided		Disagree or 'Strongly disagree'	
Relevant to practice	14	(100)	0		0	
Useful to practice	13	(93)	1	(7)	0	
Reliable	14	(100)	0		0	
Timely (up to date)	14	(100)	0		0	
Presented clearly	13	(93)	1	(7)	0	
Allowed sufficient opportunity for discussion	12	(86)	1	(7)	1	(7)
The CLP was						
A valuable use of my time	14	(100)	0		0	
Raised awareness of issues that would not otherwise be apparent	14	(100)	0		0	
Provided ideas for improving patient care	13	(93)	1	(7)	0	
Provided me the opportunity to review and reflect on my practice	13	(93)	1	(7)	0	
Will assist in changing my approach to patient care	14	(100)	0		0	
Will assist in changing my approach to improving practice in our health service	14	(100)	0		0	
The CLP improved my willingness to take a leadership role within my:						
Team	13	(93)	0		1	(7)
Department/discipline	11	(79)	2	(14)	1	(7)
Organisation	9	(64)	3	(21)	2	(14)

Table III. Evaluation of the CLP (2012 cohort)

Both internal and external speakers were highly valued; collectively rating "very good" or "excellent" (109/122, 89 per cent) on survey evaluation.

Participants commented that they valued the input of internal and external speakers, the time for reflection on clinical practice and developing relationships with colleagues from other disciplines. Criticisms related mostly to time constraints and logistical difficulties in organising group discussions and mini-projects:

> I valued the time for reflection and thinking on how the presentation topics related back to my clinical practice. Two hours is not something clinicians give themselves to reflect and think about how they would do things differently in the future, but I feel this reflection time is very important and beneficial (Participant 14).

> The clinical leaders program has assisted me to recognise and accept that some of my instinctual behaviours can be considered leadership qualities and it has provided me with the confidence to act upon them (Participant 2).

> [The most valuable aspects of the program were] networking with colleagues, sharing ideas and experiences and breaking down the silos in our site (Participant 11).

Participant follow-up (2011 programme). Of the 11 participants who completed the pilot CLP in 2011, 9 (82 per cent) remain employed at the HCO 18 months after completing the programme. Four had been promoted to more senior or managerial roles, including one who was redeployed to another section to assist in facilitating change to practice. Another member of the group has since participated within two separate quality improvement projects within the organisation.

Feasibility

Costs. Costs for the programme (Table IV) are calculated per participant as 24 staff hours each, A$200 for meals and materials, and an additional 50 hours for senior staff.

The cost of external locally offered CLPs of equivalent duration are estimated at: an enrolment fee of A$2,500 per person, travel and accommodation costs, the continued wages of staff attending the course and the costs for providing additional manpower to cover staff absences. We estimate our programme saves A$2300 and 36 working hours per participant.

The direct cost of internal speakers was negligible as this was part of normal work hours under standard education and training offered by the organisation. External speakers were organised drawing on professional contacts of the CLP co-ordinators; the cost was a small gift (less than A$50 per speaker). We estimate the real cost of arranging professional external speakers for the whole programme would have been approximately A$5,000-10,000 (assuming a half day each at commercial rates).

Executive staff reflections. Reflective discussions with executive staff explored feedback from managers about the ongoing feasibility of the programme and their perceptions of participating staff's capacity to contribute. Discussions identified benefits and challenges of implementing an in-house leadership programme.

Overall, the programme was considered to be feasible. The programme was considered to cause little if any disruption to clinical service, to be very modest in

Cost category	In-house	External (one semester unit)	External (two-day course)
Accumulated staff hours			
Staff travel to education venue	Nil	1 hours each way	1 hours each way
Staff attendance in 'classroom'	2 hours × 10 sessions	2 hours × 10 sessions[a]	8 hours × 2 sessions
Site visit	4 hours × 1	Nil	Nil
Staff back fill	Nil	3 hours × 10 (inclusive of travel)[b]	8 hours × 2 sessions
Programme development	20	Nil	Nil
Programme implementation	3 hours × 10	Nil	Nil
Direct costs			
Registration/enrolment fee	Nil	A$2,500	A$2,500
Transport costs	Nil	Variable	Variable
Meals	10 meals (A$20)	Nil[c]	Nil[c]
Text	A$30	Nil[c]	Nil[c]
Total	A$200-A$300 plus 24 staff hours per participant 50 senior staff hours total	A$2,500 plus 60 staff hours per participant	A$2,500 plus 36 staff hours per participant

Notes: [a]Flexible learning formats may mean two whole days are required; [b]This may be substantially greater, as it is often necessary to offer the health professional who is attending to the clinical work a minimum shift length of 4 hours or a whole day; [c]Generally covered by registration

Table IV. Estimated direct cost per person

costs and had an observable benefit to the participating staff. The impact on the HCO was not yet visible.

Executive and line manager support was believed to contribute to achieving the feasibility of the programme. This imbued the programme with a greater sense of credibility and demonstrated that the CLP and its participants were valued by the HCO.

The high drop-out rate in supervisor-nominated staff was noted following the 2011 pilot programme. As a consequence, the 2012 programme moved to participants' self-nomination. Other suggestions to maintain staff participation included: the need for quarantined study time for participants, the need to better engage nursing staff, greater attention to include topics and guest speakers of local relevance to our organisation.

Based on these considerations, it was considered practicable and valuable to continue the programme on an ongoing basis. The HCO plans to expand the programme to incorporate additional staff from other clinical departments (e.g. staff employed in nursing homes). The results of participant surveys in 2013 and 2014 will be considered by the executive to determine the need for a more comprehensive evaluation. Follow-up in five years of these two cohorts will be of interest to determine if there is any enduring effect.

Discussion

The CLP's overarching objective was to fill an apparent gap in available leadership training programmes by providing an introductory-level leadership course.

In developing the programme we had three priorities: to be multidisciplinary, workplace based and cost-effective. Our experience was confirmed by the multisource feedback that an in-house CLP is feasible, cost-effective, valued by staff and increases willingness to take on leadership roles.

The response to the programme was highly positive; engagement exceeded our expectations. Most survey respondents reported improved willingness to take on leadership role within their team (93 per cent). As expected, as the level of responsibility increased, fewer expressed a "willingness to lead at a department or organisational level" (79 and 64 per cent, respectively). This reflects the professional background of participants and the focus of the programme; most participants were mid-level clinicians in non-executive roles, and we aimed to increase involvement in decision-making "at all levels" with particular emphasis on engagement within the department.

Respondents reported high satisfaction with the programme. There was considerably greater engagement in the programme when participants' self-selected (90 per cent completion) compared to when they were nominated by their supervisor (55 per cent). Nonetheless, a completion rate of 50 per cent is comparable to single discipline leadership programmes in other institutions (Gagliano *et al.*, 2010). Clinicians in our programme cited time pressures as the main hurdle to participation.

Models of leadership

We developed the in-house, multidisciplinary approach in response to distributed and systems-based leadership models.

Multidisciplinary training programmes are highly valued by health-care staff (Cooper, 2003, Fernandez and Fellow-Smith, 2011). The "in-house" training model promotes development of social capital across different disciplines and levels of management. This overcomes the organisational barrier of inter-professional tension commonly recognised as hindering leadership development (Fealy *et al.*, 2011, Halcomb *et al.*, 2008, Hancock *et al.*, 2005).

Participants emphasise the opportunity to develop interdisciplinary relationships, which is essential for the promotion of clinical leadership (Fulop and Day, 2010). These relationships are increasingly viewed through distributive and relational models in which the professional context is conducive or hostile to the emergence of leadership behaviours (Swanwick and McKimm, 2011). This was reflected in our experience by high participant satisfaction, and comments from participants on the value of "breaking down the silos".

Theories of adult learning

Adult learning theories recommend self-directed, problem-centred and personally relevant approach (Kaufman, 2003). The inclusion of internal speakers, site-visits and mini-projects aimed to meet these needs.

This is consistent with previously described programmes in which the inclusion of site visits and mini-projects was found to improve leadership skills and the uptake of leadership roles (Stoll *et al.*, 2011, Fernandez and Fellow-Smith, 2011, Pearson *et al.*, 2006). The combination of external and internal teaching is also endorsed elsewhere. Participants value the balance of dynamic teaching on general leadership principles from external speakers and information applicable to their daily work from internal speakers (Gagliano *et al.*, 2010).

The adult learning approach requires greater investment of time and energy. The site visits and mini-projects were the most logistically challenging element of the programme, reflecting time pressures to organise and the need for support from HCO senior staff in contacting senior executives of the external organisations to obtain permission to visit.

Time away from clinical duties was also a challenge, and the diversity of the locations where the participants performed their clinical duties limited incidental or informal contact between group members, thus requiring formal meeting times to be organised. Also, there was an expectation that the majority of tasks related to the CLP would be completed in working hours. We inadvertently reinforced this perception because the CLP did not lead to a formal academic qualification.

Organisational challenges are expected, and even desirable, in tasks that develop self-directed and problem-solving skills. Nonetheless, clearly defined expectations and support from senior staff is important and will be emphasised in future programmes.

Feasibility

Running an "in-house" programme was significantly lower in cost than external alternatives, allowing the HCO to educate a larger group of staff. A university-based or commercial training of equivalent duration is more expensive in direct enrolment costs, requires substantial more staff hours and the need for backfill to cover staff leave. For the same cost to the HCO, we estimate the "in-house" CLP doubles or triples the number of staff who are able to participate compared to an external programme.

The internal programme also has the benefit of providing training that is immediately relevant and applicable: e.g. in the area of reporting systems, data, lines of communication and management structure.

The in-house approach also has drawbacks. The reflective discussion of senior staff emphasised the need for quarantined time for participants. Arguably, the potential for interruption is greater in a workplace-based programme. Participants may also miss out on intramural learning from mixing of personnel from other organisations. We mitigated this to some extent through the involvement of external speakers and site visits.

Evaluation

The course aimed to provide an introduction to clinical leadership, build confidence in areas outside of direct patient care, increase involvement with working groups and committees and that some participants may consider more formal training and qualification. The need for training to improve confidence and competence in non-clinical areas is well-established (Gould *et al.*, 2001, Higgins *et al.*, 2005, Capewell *et al.*, 2014). The leader requires the confidence to adapt to and implement changes that improve quality of care – hence, leadership "at the coalface". They also need skills that are supportive of others, to be able to develop collaboration, motivation and trust among group members.

Participant feedback suggests these objectives have been met, although it is difficult to quantify the impact of our training programme. There is a potential for bias in self-report that would overestimate the positive effect. Formal assessment of knowledge would have allowed better evaluation of the learning objectives, but was considered a disincentive or hurdle to participation.

One surrogate measure of leadership we used was about the status and promotion of CLP participants. Some would consider this contentious, as status and position are

distinct concepts from leadership (Box 1). There is a valid argument that every staff member, irrespective of their position in the organisation is able to inspire and develop their colleagues in areas in which they have some expertise. Measuring the "effectiveness" of leadership training by whether the participants have been promoted may not be an accurate reflection of their role. A more robust measure of effectiveness would be a demonstrated improvement in the participants' leadership skills, abilities and processes. This requires assessing the participants' leadership competencies before and after the course and whether their learning goals have been reached. This is an area for further research.

The significance of 5 of the 11 participants subsequently attaining formal leadership roles is also difficult to assess. It is not possible to know what the promotion rate may have been without the programme. Career progression may reflect selection of participants with pre-existing leadership skills, or enhanced development of leadership skills through the programme. The follow-up period for the 2012 programme is too short (less than six months) to determine the influence on staff career progression.

Given the emphasis on leadership "at all levels", and the relatively limited opportunities for promotion over the follow-up period, higher rates of formal leadership uptake at the organisational level would not be expected. Participation in team or department-level decision-making is more difficult to assess, and also depends on systems factors such as workplace culture, the existence of opportunities to participate and support from supervisors.

Our experience reflects the difficulty faced by all training programmes: how to evaluate whether leadership education produces better leaders. A training needs analysis and knowledge of the HCO's pre-training promotion rates could provide some insight in future studies.

Increased willingness to take on leadership roles requires motivation as well as knowledge and skill. A full discussion of the work motivation theory is beyond the scope of this study. However, an important element to improving staff motivation through leadership training may include increased feelings of competence and organisational commitment. Self-nomination and self-directed learning also increase feelings of autonomy that enhance intrinsic motivation (Gagné and Deci, 2005).

Recommendations

Based on the findings of this programme, we have several recommendations that would enhance the success of future programmes, which include: practical arrangements, the need to ensure there is formal recognition of learning, the selection of participants and inclusion requirements and a comprehensive course evaluation system.

Practical matters in the design include the importance of self-nomination, as this results in higher levels of engagement. Dedicated time for reflection on practice is appreciated by adult learners, as is an opportunity to listen to guest speakers on developing inter-disciplinary relationships. We also recommend organisers draw on their own professional networks to develop the programme – this was important for organising guest speakers and may overcome logistical difficulties in organising self-directed projects.

Formal recognition of the learning programme for the participants should be considered. There are obvious benefits if the CLP has formal recognition as an

education qualification. However, we considered the logistics and requirements to meet the accreditation requirements for each relevant clinical speciality training authority to be onerous and not feasible with the available resources. We elected to have a more locally applicable and context-specific programme, which is a significant attraction to the participants. Our programme provides internal recognition through an HCO-issued certificate of completion. However, this may not be recognised by other health services should the staff member seek employment elsewhere. Although the skills are transferable, the local-specific content for our HCO may not be applicable in other HCOs.

We elected and recommend a selective entry. Some HCOs may want to consider a much more inclusive approach and have recent graduates participate. We elected to focus on staff that are most likely to be leaders in the HCO within the next 5 to 15 years, these are professionals established as middle to senior level in their clinical staff position. We considered recent graduates but decided not to include because they are often preoccupied with learning their clinical craft, are more likely to move to another HCO as part of their formative development and may not yet be invested in the organisation.

A more comprehensive structured evaluation of the CLP would be ideal. This requires investment to obtain the outcome level information required to determine the value of the CLP training. The central questions are whether the CLP leads to sustainable changes, on the individual, the HCO and patient care. To determine this requires gathering a broad range of specific metrics on a much larger cohort of participants over at least five years, ideally it needs a controlled study design. Therefore, we recommend partnering with a research group with programme evaluation expertise from the outset.

We did not find any other published examples in the peer-reviewed literature of workplace-based leadership training that integrates staff from medical, nursing and allied health fields.

One comparable programme for consultant physicians has been developed elsewhere (Gagliano *et al.*, 2010). This programme had similar goals and structure to the CLP: programme developers emphasised the cost of external training, the value of combined internal and external teaching and participant preference for short, monthly sessions rather than an intensive course. Participants reported improved approach to day-to-day challenges, and increased interest in future leadership roles.

Strengths of our study include multisource feedback and the fact that this is the first appraisal of a leadership programme that is both multi-disciplinary and workplace based. Limitations include the small sample, short timeline from programme implementation and limited formal evaluation of participants' knowledge and skills in leadership at entry into the CLP.

We expect this CLP model to be transferable to other similarly sized, publically funded regional and metropolitan HCOs for their clinical staff working at the "frontline" of care. However, whether this CLP is transferable to all HCOs is debatable. Each HCO has its own culture, in part, influenced by size (large or small), location (regional or metropolitan) and the dominant disciplines or departments (Taylor *et al.*, 2011).

Conclusion

The integration of health-care professionals into formal and informal leadership roles is essential for promoting and implementing organisational change (Swanwick and McKimm, 2012) and for improving patient safety. It is also necessary for staff at all levels to demonstrate leadership in everyday practice.

Workplace-based multidisciplinary clinical leadership training is feasible, cost-effective and increases willingness to take on leadership roles.

Further research is also required to directly compare "in-house" and external leadership training programmes. More importantly, we need research to answer the question of whether leadership training improves specific patient care outcomes.

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