Secondhand learning from graduates of leadership development programs

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Abstract

Purpose – This paper aims to explore the impact leadership development program graduates had on their workgroup, the nature of that impact and how that impact occurred.

Design/methodology/approach – This research was conducted at three sites using a qualitative interview methodology with thematic data analysis. Techniques to ensure trustworthiness included purposive sampling, triangulation of researchers, member checks and code checking.

Findings – Analysis of the data revealed secondhand learning as specific changes in practices, behaviors and attitudes, transferred by program graduates to their peers and supervisors. The transfer of learning was described as both intentional and informal learning during episodes of varying duration, and occurred through a variety of dyadic and group interactions in a manner generally consistent with the 4I framework of organizational learning.

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Research limitations/implications – The study was limited to medical educators. Recommendations for supervisors and organizations to maximize training transfer are identified. These suggestions advocate for actively encouraging graduates in departmental leadership and faculty development; focusing transfer on specific practices, behaviors and attitudes; and considering both short- and long-term outcomes.

Originality/value – This paper makes an original contribution to the literature by describing the process of secondhand learning from leadership development program graduates. The paper also expands our understanding of the nuances in transfer methods and associated learning episodes in the context of an educational environment. Finally, the research illustrates how qualitative methods can be used to expose secondhand learning.

Keywords Leadership, Workplace learning, Employee development, Leadership development, Organizational learning, Transfer of training, Faculty development

Paper type Research paper

Despite multibillion-dollar investments, leadership development programs have been widely criticized by the academic and practitioner communities for their lack of impact in helping those trained to deal with pressing organizational demands (DeRue and Myers, 2013; Kellerman, 2012; Petrie, 2011). Programs often lack any relationship to leadership theory and reflect poor evaluation measures (Allen and Hartman, 2008; American Society of Training and Development (ASTD), 2010; Avolio *et al.*, 2010; Watkins *et al.*, 2011). Program content emphasizes a narrow range of individual knowledge, skills and abilities, ignoring identity development, motivations, mental models of leadership or leader – follower processes and relationships (DeRue and Myers, 2013; Kegan and Lahey, 2009). Evaluations of leadership development programs focus on the individual (Watkins *et al.*, 2011) without exploration of how new learning and/or behavior change occurs. Where colleagues have been involved in leadership development program evaluation, they have been asked to assess changes in the participant as a means of triangulating self-reports.

In academic medical centers, medical education fellowship programs have become significant tools for improving the educational leadership abilities and teaching skills of faculty responsible for training students, residents and fellows. Much of the training takes place in workplace settings including clinics, emergency rooms and hospitals, and education centers simulating these environments. Research has demonstrated the value of medical education fellowship programs to participants (O'Sullivan and Irby, 2011). However, similar to leadership development programs in business, assessment of the potential program impact on peers and the organization as a whole is lacking. This fourth and highest level of program evaluation (Kirkpatrick and Kirkpatrick, 2006) is considered necessary to fully understand the impact of leadership development programs on their sponsoring organizations. In addition, scholars have called for exploration of *how* any identified value is provided (Parker *et al.*, 2011).

To begin to fill the gap in understanding the value of leadership development programs, this study explored the impact that graduates of a one-year medical education faculty leadership development program had on their peers and supervisors, the nature of that impact and how that impact occurred. The findings contribute to the literature by first identifying what aspects of the leadership development program transferred to workgroup members, and then describing the secondhand learning process. The findings also provide an understanding of the nuances in transfer methods and the associated learning episodes in the context of an educational environment.

Theoretical background

Five streams of literature informed this study:

(1) leadership development;
(2) training transfer;
(3) workplace learning;
(4) organizational learning (OL); and
(5) medical education faculty development programs.

The literature on leadership development was the natural starting point, as it was the purpose of the program under study. This literature provided categorizations of programs, noted lax evaluation methods and provided theoretical constructs for learning transfer for program participants. The search for empirical studies on learning transfer led to the training literature, which suggested conditions for such transfer. The first two literature streams concerned program participants only, and how they transfer training to their workplace, stopping short of identifying how training might transfer to others at their workplace. To examine this further, we needed to change our perspective from how one transfers learning to how one receives that transfer of learning – how one could learn from others at work (workplace learning) and how learning occurs in organizations (OL). Finally, the medical education literature regarding faculty develop programs provided contextual background on the general type of leadership development program under study.

Leadership development

Leadership development is considered an important source of competitive advantage that "expands the collective capacity of organizational members to engage effectively in leadership roles and processes" (Day, 2001, p. 582). Day distinguished between leader development and leadership development. Leader development focuses on an individual and involves fostering intrapersonal skills and abilities, while leadership development is viewed as a social and emergent process, engaging all members of an organizational community. Both must be nurtured to build organizational capacity. Despite these distinctions, both the academic and practitioner literature continue to use the terms synonymously, reflecting the historical conceptualization of a leader as an individual occupying a hierarchical position (DeRue and Myers, 2013).

Leadership development programs are generally categorized by the type offered: formal training, developmental activities or self-help activities (Yukl, 2012). Earlier, Conger (1992) suggested programs be identified by their objectives, such as personal growth, feedback, skill building and theoretical and conceptual understanding. These four objectives were later reframed as components essential for all effective leadership development programs (Allen and Hartman, 2008), and are now considered critical to any program's success (Yukl, 2012).

Although organizations often invest in leadership development programs, they do a poor job of measuring the efficacy of those programs (ASTD, 2010). Fewer than 100 studies of program impact were found in a literature review conducted by Avolio *et al.* (2010). Further, much of the leadership development literature is focused on participant reaction, learning and behavior change (Kirkpatrick and Kirkpatrick, 2006), with scant exploration of how new learning and/or behavior change takes place or may be transferred to others. Yukl (2012) identified facilitating conditions for learning transfer in the workplace, including the

presence of a supportive boss and a learning climate. London and Maurer (2004) offered a diagnostic model of leadership development that integrated individual and organizational factors, but other than identifying these factors, the literature on leadership does not take advantage of what is known about the transfer of training and learning in organizations.

Training transfer

The training literature concentrates on components that transfer an individual's learning to their workplace:

- training inputs, including characteristics of the trainees, design of the training and the work environment;
- training outputs, the learning and retention of the material; and
- the conditions of transfer focused on the generalization and maintenance of the training (Yamnill and McLean, 2001).

Contextual conditions in the organization, such as supportive leadership and climate, have also been identified as impacting transfer of training (Barnett and Ceci, 2002; Ellinger, 2005; Eraut, 2007; Yamnill and McLean, 2001).

Blume *et al.*'s (2010) meta-analysis of 89 studies found predictive value for a number of variables, including motivation of the trainee and a supportive climate. In general, the predictor constructs had a stronger relationship to transfer when the focus was open (leadership development) versus specific (skills) in nature. In addition, moderate correlations were found between the trainee and other (both peer and supervisor) ratings of transfer, indicating that peers and supervisors recognized and assessed training transfer, as well as the trainees themselves.

Workplace learning

The adult learning literature defines learning from others at work as informal learning, taking place as individuals go about their daily work (Marsick and Watkins, 2001). Because informal learning can occur incidentally, it is often not recognized as learning. Eraut (2004, p. 250) describes the characteristics of informal learning as "implicit, unintended, opportunistic and unstructured learning in the absence of a teacher" and suggests that transfer of knowledge into the workplace is more complex than previously thought. Eraut (2007) also identifies major ways of learning from others as observation followed by mimicking, working together on projects, receiving close guidance from another and exchanging information and dialoguing.

Studies have examined the resultant performance of the individual and sometimes included the impact the individual has on his or her workgroup and on the organization's performance (Boud and Middleton, 2003; Yamnill and McLean, 2001). However, it has been generally accepted that individual participation in management programs rarely results in change at the organizational level (Watkins *et al.*, 2011).

OL and the 4I framework

Most models of OL acknowledge individual learning as their foundation (Casey, 2005). Contextual factors such as structure and leadership also play important roles. It is understood that although individual learning is necessary, it is not sufficient for OL to occur (Casey, 2005). OL has been defined in many ways, but most scholars indicate that OL occurs when there is a change in an organization resulting from individual and

organizational experiences. Both individual and collective experiences play important roles in OL (Crossan *et al.*, 1999), and OL is reflected in enhanced attitudes, knowledge and skills that meet the needs of the organization (Yeo, 2005).

OL models, theories and processes have been discussed for decades (Argote and Miron-Spektor, 2011; Huang and Shih, 2011). One model, the 4I framework proposed by Crossan *et al.* (1999), is of particular interest when exploring the influence of individual learning and its relationship to subsequent changes at the organization level. This framework contains four related sub-processes: intuiting, interpreting, integrating and institutionalizing, which occur over different levels. According to Crossan *et al.* (1999), intuiting and interpreting occur at the individual level. Intuiting results from the personal experiences of individuals when they recognize patterns or possibilities. Interpreting bridges both the individual and group levels when individuals and group members explain themselves through words and actions. Integrating primarily occurs at the group level and results in coherent, collective action. Institutionalizing occurs at the organizational level, where learning is embedded in the systems, practices, infrastructure and information systems of the organization. Of note, some overlap of levels may occur, and every process may not always occur. Crossan *et al.* (1999) also described OL as a dynamic process consisting of two simultaneous mechanisms for transferring learning across levels:

(1) feed forward, where new ideas and experiences from the individual level flow to the group and organizational levels; and

(2) feedback, where what has been learned flows back from the organizational level to the group and individual levels.

This model has been criticized for excluding power and politics (Lawrence *et al.*, 2005) and for the challenge of identifying the intuiting process occurring at the individual level (Huang and Shih, 2011).

Medical education faculty development programs

Faculty development programs for medical educators have become increasingly important to the mission of fostering excellence in medical education at academic medical centers (Lown *et al.*, 2009). The programs take various forms (e.g. formal training, informal discussion groups) and include content that generally spans topics related to teaching effectiveness, leading educational change and developing educational scholarship (Thompson *et al.*, 2011). One of the most common forms of faculty development is the fellowship program, offered by almost half of US medical schools. Fellowship programs in medical education are defined as single cohorts of medical teaching faculty participating in an extended faculty development activity (Searle *et al.*, 2006). Most fellowship programs require completion of at least one scholarly project.

Research on faculty development programs and on fellowship programs specifically has focused on individual participants (O'Sullivan and Irby, 2011). Various studies point to program satisfaction, learning about teaching and self, changes in teaching behaviors, increased scholarly production and impact on patient care outcomes. These studies address all four levels of program evaluation (Kirkpatrick and Kirkpatrick, 2006), but only for the individual participants. O'Sullivan and Irby (2011), criticizing the narrow focus of the literature, called for reframing faculty development research on process and outcomes beyond the individual participant to include the workplace.

Concurrently, evaluation of research training for clinician scientists has emphasized the importance of "going beyond" the Kirkpatrick levels of program evaluation to explore *how* programs provide value, not just that they do (Parker *et al.*, 2011).

These five streams of literature provided several inferences for the study. First, the literature on leadership development, training transfer and medical education faculty development programs revealed a considerable gap in understanding and need for research on the impact of development programs beyond the participant. Second, the literature on leadership development and training transfer indicated the importance of supervisor and climate in facilitating learning transfer, establishing the workgroup as an important social context to understand the transfer process. Third, the literature on workplace learning reinforced the potential of workgroup impact over organizational impact. Fourth, the workplace and OL literature offered suggestions on how workgroup members might learn from others, the types of interactions that might occur and, by omission, identified leadership development programs as candidates for exploring secondhand learning. Finally, the nascent state of the literature evaluating leadership development programs combined with the challenge to understand *how* faculty development programs provide value points to further inquiry that is qualitative in nature, where the specifics of what is transferred can be identified and how the transfer occurs can be explored.

Methodology

The purpose of this study was to identify what, if any, impact graduates of a medical education leadership development program had on the members of their workgroup. The main research question was: What, if any, is the impact of graduates of the Master Teacher Leadership Development Program (MTLDP) on their workgroup? Sub-questions were:

- How can the impact be described?
- How does the impact occur?

The setting for the study was a one-year faculty education fellowship program called the MTLDP. The program is offered by an urban school of medicine and health sciences, in partnership with the university Graduate School of Education and Human Development. Medical faculty from three separate teaching hospitals and basic and health science faculty from the sponsoring school are selected to attend the program by their organization's leadership. They enroll as a cohort of 10 to 14 participants and, after completing six graduate-level courses, are awarded a graduate certificate in leadership development. Course content includes adult learning theory, curriculum design, learning assessment, qualitative research methods, workgroups and teams and leadership. The program is in its 12th year and has 116 faculty member graduates, 92 of whom are currently working in the organization that sponsored them. Previous research of program graduates indicated significant impact on their own teaching, scholarship and leadership activities, but did not explore workgroup impact (Goldman *et al.*, 2012, 2013).

We completed a basic interpretive qualitative study using semi-structured interviews (Creswell, 2013; Merriam *et al.*, 2002). We were interested in understanding if the learning of MTLDP graduates resulted in changes in the broader workgroup, and if so, how the process of learning transfer occurred. Accordingly, the study was directed at

the workgroups members' interpretations of their experiences with the MTLDP graduate, and the meaning they attached to those experiences (Merriam *et al*, 2002).

The research team consisted of four faculty members, two from the Graduate School of Education and Human Development and two from the School of Medicine and Health Sciences at the George Washington University, plus a research assistant. The university institutional review board approved the study, and informed consent was obtained prior to each interview.

We solicited volunteers from a purposive sample of supervisors and peers of MTLDP graduates from the three participating institutions: The George Washington University School of Medicine and Health Sciences (SMHS), Children's National Medical Center (CNMC) and the District of Columbia Veteran's Administration Medical Center (DC-VAMC). Supervisors invited to participate in the study were those in their positions before their subordinates graduated and were from diverse medical specialties across the three sites. To corroborate and extend perspectives, participating supervisors recommended two potential peer participants who were in their positions before and after graduates completed the program.

Seventeen supervisors were invited to participate via e-mail request from the project team; three declined because of pending retirement and one because of lack of time. Thirty-two peers were invited to participate via e-mail request from the project team; four declined because they had no direct awareness of the graduates' educational endeavors and three because of lack of time. A doctoral student scheduled those agreeing to participate for an interview. In total, 13 supervisors (six from SMHS, five from CNMC and two from DC-VAMC) and 25 peers (11 from SMHS, ten from CNMC and four from DC-VAMC) were interviewed. Only two departments from DC-VAMC sent faculty to the MTLDP, explaining its lower number of participants. The interviews took place over a period of three months.

The four faculty members on the research team conducted one-hour one-on-one interviews. The interview protocol was provided in advance to facilitate reflection and maximize interview time. Questions posed in the interview were related to MTLDP graduates' workgroup roles and activities; whether contributions by graduates changed after the program; if so, how (seeking specifics about observed teaching, leadership or scholarship activities); if not, why not. Interviewees were asked similar questions about contributions MTLDP graduates made at the organization level, how they occurred and how others experienced them. In addition to the questions provided in advance, the researchers probed areas of particular interest to the interviewees and asked open-ended questions to solicit additional understanding of the impact of program graduates on the workgroup and, if relevant, larger organization. Interviews were audiotaped and transcribed verbatim; transcripts were de-identified (with names of colleagues deleted) and assigned a number to maintain confidentiality. Member checks were conducted, and one minor change was made in one transcript as a result.

All members of the research team participated in data analysis which took place over a six-month period. A grounded theory approach was used, constantly comparing one unit of data with another in search of emergent themes (Merriam *et al.*, 2002). Two researchers (MW, NM) initially examined a portion of the data, coding and grouping it into categories responsive to the main research question: What, if any, is the impact of graduates of the MTLDP on their workgroup? These researchers quickly realized the data identified impact on the graduate, the workgroup and the organization. Discussion

with the full research team led to additional categories clustered around the nature of the impact, which resulted in the creation of a three by three matrix of changes in teaching, scholarship and leadership identified in the graduate, the workgroup and the organization. The remaining three researchers (EG, MP, YH) reviewed the same data to confirm the analysis. The codes and categories were then applied to additional portions of the data, continually comparing data in search of recurring patterns, as well as identifying both confirming and discrepant data.

Following this step in the analysis, the researchers reached consensus on the all of the codes and categories and applied them to the remaining data. Emergent themes (i.e.: changes in practices, changes in behaviors, changes in attitudes) and linkages among the data were drawn, revised and verified (Miles and Huberman, 1994). Throughout the data analysis process, ongoing discussion occurred and consensus was sought among team members in meetings to ensure the accuracy of the findings. In addition, emergent themes were compared across categories of workgroup members (supervisors, peers), departments and sites. Negative cases were sought and explored (Creswell, 2013). The process continued until no new codes and themes emerged, saturation was reached and the accuracy of the findings was unanimously confirmed. Discussion among the research team members led to the organization of data for presentation by the larger themes of changes in practice, behaviors and attitudes as they relate to teaching, scholarship and leadership. Quotes representing the full range of changes experienced by peers and supervisors were selected for as evidence for each theme.

The process above initially focused on identifying *what* the impact was; however, the codes also identified responses to the two research sub-questions: How can the impact be described? and how does the impact occur? The research team compared the analyzed data to the literature on transfer of training, workplace learning and OL. The 4I components identified by Crossan *et al.* (1999) provided the most developed framework for understanding how secondhand learning was experienced by the study participants. Accordingly, we mapped quotes to the 4I components. Considering the four major ways of learning from others identified by Eraut (2007), helped us understand, in part, how the experience occurred. However, this did not describe what we saw in the data regarding the associated temporal aspects including the duration of these ways of learning and how they unfolded over time. After much discussion, the research team developed a pictorial representation of how secondhand learning occurs. This was aided in part by comparing the learning episodes and timing to a previous study on workplace learning conducted by two members of the research team (EG, MP; Goldman *et al.*, 2009).

Trustworthiness was ensured by triangulation of multiple researchers, purposive sampling to obtain diverse perspectives, debriefing following initial interviews, review of initial transcripts by team members who did not conduct the initial interviews, member checks of transcripts for accuracy, code checking by team members throughout analysis and use of devil's advocate and negative case discussion in building consensus around findings (Creswell, 2013; Miles and Huberman, 1994).

Findings

Changes noted in MTLDP graduates were consistent across supervisors and peers at all three sites. All interviewees began their comments by identifying changes in specific techniques graduates used and the level of confidence graduates exhibited in performing their roles as teachers, scholars and leaders.

What was learned secondhand

The impact graduates had on their workgroup was described as changes in practices, behaviors and attitudes (with some overlap among these categories). Table I provides verbatim examples.

Changes in practice involved new or modified procedures or customs that were learned, accepted and adopted by the workgroup. In teaching, practice changes that were transferred to others included curricular designs that incorporated interactive learning and strategies for providing feedback. In scholarship, practice changes included rigor and adherence to the research process. In leadership, practice changes included innovations to program delivery, enhancements to workgroup meetings and positioning of graduates as resources for group members.

Changes in behaviors concerned modifications to the way workgroup members interacted and performed their work. Teaching behaviors that transferred to workgroup members included team and inter-professional teaching and specific strategies for managing trainee interactions. Scholarship behaviors that transferred to workgroup members included sharing expertise and excitement for research and including others at various levels of the organization on research teams. Leadership behaviors that transferred to workgroup members included enhanced respect for individuals and a willingness to accept peer mentoring.

Changes in attitudes were evident in how workgroup members viewed teaching, scholarship and leadership. Workgroup members were more open to asking for assistance and experimenting with new teaching techniques. An enhanced interest in research and publishing were noted in the workgroup. Workgroup members began to view teaching and curricular enhancement as a process (vs a product) of continuous improvement cultivated by feedback and to see the contributions of all individuals in the department as valuable regardless of rank.

How secondhand learning was characterized

Based on the verbatim comments in Table I, the transfer of training from program graduates to their workgroup members was both intentional and informal. Intentional transfer took place as graduates were assigned or assumed leadership roles in curriculum development and departmental meetings, convened research study teams, provided formal faculty development sessions and responded to requests for assistance from peers and supervisors. Informal learning transfer took place as peers and supervisors observed graduates' teaching and leadership, participated with graduates in the work of the department and heard from students and others about specific approaches and techniques graduates were using.

In addition to secondhand learning being both deliberate and informal, it can also be described as taking place in episodes of varying duration. Many of the practices and behaviors were transferred to workgroup members via short, focused moments with graduates, as noted in the following statements: "I loved the way you talked to that resident; […] I'm going to try that next time" and "I always learn something when I observe a Master Teacher interacting with a trainee". Other learning transfer took place via more intense and/or longer shared experiences. For example, "I'm a co-investigator on a project; […] we went through everything much more systematically" and "she helped me in one of my earlier educational initiatives; […] we worked to avoid lecture". Finally, other learning was transferred through repetition of routine activities with

Changes in practices
Teaching
I see changes in [. . .] being more flexible in how we give feedback [. . .] being very particular about when we identify students who are not meeting our standard
She helped me in some of my earlier educational initiatives [. . .] we worked to use a lot of simulation and hands-on skills and activities [. . .] instead of (me) getting-up and lecturing
A lot of people including myself adopted (the way she does feedback) [. . .] that's the norm now [. . .] it's using exams as a way of learning and not just "this is your grade"
Scholarship
She really did have a much better level of rigor in terms of technique [. . .] we went through everything much more systematically than if I were running it
Referring to the Master Teacher graduates leading others in educational studies:
[. . .] (they instruct others) go to the literature first: "Let's look at what's out there"
[. . .] (they ask the group) "What are going to be the confounders? How are we going to control for those confounders?"
Leadership
She runs pretty close to the best clerkship that we have in terms of the organization, educational theory and the assessment of learners. A lot of the innovations she's brought [. . .] assessing learners and structured clinical evaluation forms have been picked-up by other clerkships
They've certainly revolutionized the way we run our Thursday meetings. [. . .] Much more interactive [. . .] and uses adult learning theory. It's a much more give and take process and much more interesting to attend
Often times when we're stuck or stymied, (the graduates) are resources that we go to and say: "this is what I think [. . .] what are your thoughts?" and they bring a different perspective
Changes in behaviors
Teaching
They started teaching together [. . .] as opposed to the usual model that we teach alone [. . .] That's one of the most dramatic things I've seen from them [. . .] I tell the Fellows to watch [. . .] try to model
Instead of working in our own little silos, people are working together
She taught in particular ways and (faculty) thought, wow, she seems to be into something [. . .] by the force of example and the acceptance by students she made a substantive change
I always learn something when I observe a Master Teacher interacting with a trainee [. . .] I always pick up something new [. . .] it's like oh, I never tried it that way before
Scholarship
She was a remarkable resource [. . .] her involvement with the curriculum was clear as she was helping us put together this research project
Being surrounded by (graduates) with research projects going on is a stimulating environment
He has [faculty] involved in a number of multi-institutional projects. He's worked with a number of fellows as a research mentor on projects
Leadership
They're positive role models [. . .] very well respected because they respect others. They follow through on all of their projects; they participate and are very engaged which transfers to others
People go to [the graduates] for their input. Look to them for advice; look to them to be mentors
As we develop new educational activities in our department [. . .] the conversation starts with: What is really important that the learner take away? What does the learner bring to the table at the beginning? How can we make this more self-directed and individualized and not just off-the-shelf or prepackaged?

Table I.
Changes in peer, supervisor and group practices, behaviors and attitudes

(*continued*)

Changes in attitudes
Teaching
I find it difficult to be interactive with a large group [. . .] I asked [a graduate] to give me some pointers. I feel really good that I have people (to go to) who are resources and have expertise
[The program] definitely had an impact on the division in that [the graduates] introduced us to the concept of adult learning and how it applies in our area [. . .] raising [our] awareness
In the library instructional sessions there's a willingness to go out there and incorporate this [. . .] try it, and see what happens
Scholarship
I feel like I have learned from [the graduates]. Without a doubt being surrounded by people who all have [research] projects going on is a stimulating environment
I've seen an increased interest in research [in the department]
Leadership
[Feedback] is being done now much more in real time: asking for feedback right after a difficult meeting [. . .] inviting [others] to critique [. . .] because of the way that [the graduates] are functioning and communicating it's a fabric of the culture that everyone is always learning and you have to be actively engaged in your own learning. You have to seek feedback [. . .] give feedback
At a departmental level, we have graduates at all levels [. . .] very junior faculty and very senior faculty [. . .] one of the things I have observed is that [the program] breaks down the barriers of that hierarchy and allows for interactions among the faculty [. . .] there's common ground [. . .] they've all been through the same thing [. . .] we're all speaking the same language and there's also the confidence in leadership skills that were developed by participating in the program

Table I.

graduates and just by being in the same environment: "Feedback is done now much more in real time; […] it's a fabric of the culture that everyone is always learning"; and "without a doubt, being surrounded by people who all have [research] projects going on is a stimulating environment".

How secondhand learning occurred

Regardless of how learning was described in terms of its intentionality, formality and duration of episode, secondhand learning occurred via four ways: by observing graduates and copying their practices, by working with graduates together on projects, by receiving specific close guidance from graduates and by exchanging information and dialoguing. These methods of learning transfer were identified across practices, behaviors and attitudes regardless of whether they related to teaching, scholarship or leadership. The first three processes were described as how learning transferred much more often than exchanging information and conversing.

The experience of these methods of learning transfer was consistent with the 4I framework of OL (Crossan *et al.*, 1999). Table II provides verbatim examples at each level.

It was clear that peers and supervisors believed program graduates internalized their MTLDP experiences (intuiting) and were practicing in materially different ways. Peers and supervisors noted how graduates interpreted what they learned and transferred it by explaining concepts, role-modeling behaviors and engaging in dialogue. The social interaction took place in dyads and across the workgroup as a whole, changing the educational techniques used and the approaches to workgroup activities. Integration of graduates' learning across the entire workgroup occurred through continued

Intuiting: individual level
Intuiting focuses on the subconscious level; it was not possible to gather examples of individuals' intuiting. However, interviewees described how graduates used what was learned:
MTLDP has freed people up to experiment
They (graduates) influence me to keep more at the top of my brain that has to do with openness
Interpreting: individual and group levels
(Graduates) in working group meetings, leading by example in the conversation [. . .] asking those questions: What is our goal? What are our outcomes? How are we assessing this?
I think it's much more by role modeling and just seeing what (graduates) do that's a little bit different than how other people do it
We worked to avoid lecture [. . .] nobody learns that way [. . .] that's the biggest thing I learned from her. Then as I've gone to school, what she said was integrated into my whole educational psyche
(Graduates) have the knowledge how to do whatever they want to do [. . .] and the enthusiasm. This is infectious because we all now want to do more than we did before
Integrating: group level
We are all speaking the same language now
[. . .] making changes in the curriculum that reflect things like reflection [. . .] are starting to permeate the old guard of how we teach at the institution
I think in other ways it rubs off on those around (the graduates). People just absorb whatever they are teaching [. . .] and learn from them
Institutionalizing: organizational level
It's helped the whole culture [. . .] promoting the idea that teaching is important and taking the old traditional approach is probably not the best way of going about the teaching
The thing that has been most influenced is the culture of learning and the specific behaviors that are practiced by the graduates that help strengthen the culture
Once she started doing (exam reviews and feedback) [. . .] a lot of people including myself adopted that and [. . .] That's a norm now [. . .] that's changing the culture of the institution
This belief in getting feedback is a very key behavior that I don't think we were doing before [. . .] now is it's being done much more in real time–right after a difficult meeting [. . .] inviting critique

Table II.
How peers and supervisors experienced secondhand learning

conversation and shared practices, leading to changes across the entire curriculum. Peers and supervisors identified several routines and procedures that had been institutionalized, describing these as changes to the culture of learning and working together.

Figure 1 depicts secondhand learning from program graduates as described by peers and supervisors. Learning occurred in different periods of time and levels of intensity, including focused moments, intense experiences and routine activities. Learning episodes were facilitated by peers and supervisors observing/mimicking, collaborating, receiving guidance and exchanging information with program graduates and resulting in changed workgroup practices, behaviors and attitudes.

Discussion

The data reflect a view of secondhand learning from graduates of a leadership development program as changes in practices, behaviors and attitudes, transferred by program graduates to peers and supervisors. The transfer of learning was described as both intentional and informal learning during episodes of varying duration that occurred through a variety of dyadic and group interactions in a manner generally

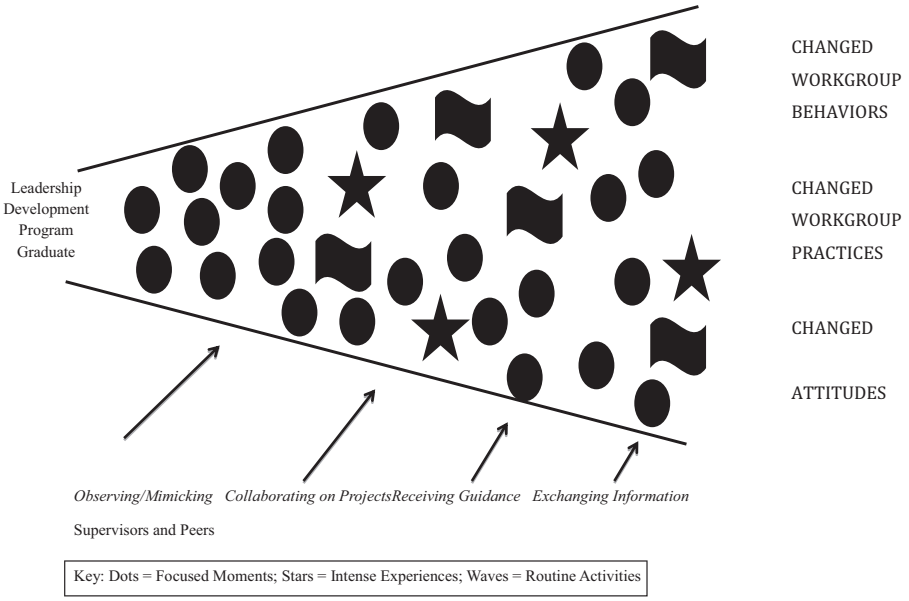

Figure 1.
How secondhand learning occurs

consistent with the OL process described by Crossan *et al.* (1999). Secondhand learning occurred most frequently via observation and copying of graduates, working with graduates on projects and receiving specific guidance from graduates. These means of learning transfer are not surprising, as they are consistent with the most common forms of teaching in medicine:

- "transmission", where material is presented by content experts; and
- "apprenticeship", where learners work alongside experts (Pratt *et al.*, 2001).

Looked at from the teaching (vs learning perspective) perspective, *transmission* is consistent with the graduates leading meetings and project teams, and providing specific guidance to peers and supervisors. *Apprenticeship* is consistent with colleagues observing program graduates model and demonstrate practices, behaviors and attitudes. Thus the secondhand learning occurred in ways that peers were used to receiving information (from years of medical and health science training).

Learning in this study did not occur substantially differently than other types of workplace learning in terms of the methods of transfer (observation, working together, receiving close guidance, exchanging information; Eraut, 2007). However, what differed were the types of episodes in which learning occurred. Previous research revealed four types of learning episodes experienced by emergency medicine residents (Goldman *et al.*, 2009). The episodes identified in this study included far more focused moments of learning as compared to other types of episodes and few, if any, connections among the learning episodes. One potential explanation for these differences is the context in which participants worked. Unlike in the previous study, faculty members in this study are rarely in the same location at the same time, making the interactions with each other shorter and more focused. In addition, numerous focused learning moments may be

required before faculty members ask for assistance or participate in a more intense learning episode, whereas residents are expected to ask for clarification, assistance, etc.

It is interesting that the findings did not vary by the medical specialty practiced, across the three sites, or by supervisors versus peers. As mentioned earlier, one of the sites had only two participating departments; we might have expected less transfer there given the importance attached to organizational support in the literature (Barnett and Ceci, 2002; Ellinger, 2005; Eraut, 2007; Yamnill and McLean, 2001). Similarly, we might have expected stronger transfer of training within the one site that initiated the program. The lack of differences across the three organizations suggests that transfer of training related to leadership development can be robustly achieved in the immediate work environment even if the rest of the organization does not participate.

The study has several limitations. We spoke to supervisors and peers involved in medical education. These colleagues may be more attuned to wanting to learn what program graduates were exposed to as compared to faculty not involved in medical education (i.e. clinical research faculty). We also selected departments where at least two graduates were employed. This was done to minimize the impact of a single person's drive or determination in fostering change; however, it is possible that we would have found more negative cases in the very few departments with single graduates. A more general limitation concerns the nature of qualitative research as focused on a small number of participants. However, qualitative research is not meant to be generalized; rather, rich descriptions of secondhand learning are provided in the tables to enable readers to determine the transferability of these findings to similar situations.

Implications for theory

The study findings support OL theory and specifically the 4I process (Crossan *et al.*, 1999). The learning of the graduates was intuited, interpreted, integrated and institutionalized across individuals, small groups and eventually the department as a whole. Practices and procedures were shared and adopted, changing the workplace culture. The study findings also supported the methods of training transfer described in the literature (observation, working together, receiving close guidance, exchanging information; Eraut, 2007), but did not support the notion that most transfer occurs informally (Boud and Middleton, 2003; Ellinger, 2005; Eraut, 2004; Watkins *et al.*, 2011). Learning transferred both formally and informally, and the lines between the two were not distinct. For example, learning for peers and supervisors occurred by watching graduates interact with students on rounds, a formal activity. But what they learned occurred informally; for example, recognizing techniques used to give feedback in an unpredictable situation. Similarly, learning occurred during routine, formal department meetings where a graduate might be providing a faculty development session, but the learning arose from extemporaneous discussion. It may be that in today's world of continuous learning, formal and informal learning are symbiotic.

The study findings support the importance of considering the notion of learning episodes (Goldman *et al.*, 2009). Learning methods and learning episodes are closely related. For example, in this study, the moderate use of observation was related to shorter focused episodes of learning. Consideration of learning episodes revealed that methods of transferring learning were not equally used; learning occurred more frequently through observation, collaboration on projects and receiving guidance than it did through exchanging information. The findings also illustrate the role that

participants and context can play in determining the nature, amount and duration of learning episodes, as the episodes found here differed significantly from those reported in an earlier study of a single environment involving trainee learning. The concept of learning episodes offers another perspective from which to describe and differentiate learning processes, both as individual occurrences and as a series of events over time.

Implications for practice

For learning from leadership development to transfer to workplace colleagues, a number of elements are useful. First, supervisors can facilitate transfer of learning by actively encouraging relevant interactions of program graduates and their colleagues. Supervisor "support" is identified in the literature as a requirement for training transfer (Baldwin and Ford, 1988; Barnett and Ceci, 2002; Blume *et al.*, 2010; Ellinger, 2005; Eraut, 2007; Watkins *et al.*, 2011; Yamnill and McLean, 2001), but few specifics are provided. Supervisors in this study openly encouraged graduates to run departmental meetings, introduce others to what they had learned and accept responsibility for making changes in departmental procedures. In addition, they encouraged other faculty to use graduates as resources and openly admitted they did so themselves. The supervisors were not just "supporting" what the graduates wanted to do; they were guiding the entire department to learn. In addition, admitting to their own learning implied there is no hierarchy in training transfer.

A second important element for training to transfer is the focus on specific practices, behaviors and attitudes. Evaluations of most leadership development programs center on what individual participants were or were not able to accomplish after completing a program. The meta-analysis completed by Blume *et al.* (2010) indicated that more open training had a stronger relationship to transfer than closed training. Here, while the training was open (i.e. leadership development), it also included specific skills (e.g. teaching using active learning). We suggest that, regardless of the nature of the training, focusing *transfer* on specific practices, behaviors or attitudes enables impact. This is because most of the transfer identified was completed via short, focused episodes.

Finally, in evaluating transfer of training, short- and long-term outcomes should be considered. At times the impact was seen immediately, as many interviewees referred to practices currently enrolled program participants transferred to their workgroup. Others described an accumulation of short focused moments of learning transfer and more intense learning experiences that led to alterations in routine workgroup activities. The program studied was 11 years old at the time of data collection. Some departments had faculty in the original cohort; some had faculty who graduated as recently as 2 years ago. Given that the findings did not vary by department, it seems critical to consider both the long- and short-term impact at the "institutionalizing" level from graduates of a year-long program (Crossan *et al.*, 1999).

Implications for research

Many opportunities exist to enhance our understanding of the secondhand learning from participants of leadership development programs. First, it seems useful to compare learning processes, including the nature of learning episodes, across contexts. For example, in this study, similar types of episodes occurred, but they were different than what had been noted in a previous study involving a different level of learner in a more chaotic medical environment. Research at different levels and in different environments

within medicine may further delineate variables in learning transfer. Studies of secondhand learning from leadership development across domains (business, government, etc.) might also provide valuable information for training transfer. For example, are the methods of learning equally practiced? Where do the episodes occur differently? Further research could also focus on understanding the transfer of different types of leadership development training (self-study, e-learning, coaching, etc.) on colleagues. Additionally, given the time that may be required for learning to transfer, short- and long-term impact should be considered. Such research could also differentiate the transfer of practices versus behaviors versus attitudes: How does each one transfer? Is there an order? Is a different timeframe required? Do specific methods or types of episodes facilitate each? Finally, across contexts, levels, domains, program types and time, the study of secondhand learning should also consider other potential consequences: Does it lead to third- and fourth-hand learning (i.e. is what is learned secondhand passed on when the initial recipient changes workgroups)? Does it lead to increased self-directed learning of peers and supervisors? Or prompt other forms of formal or informal learning?

This study deepens our understanding of secondhand learning from participants of leadership development programs. Taking a qualitative approach enabled us to identify specific practices, behaviors and attitudes that transferred from program graduates to peers and supervisors. The primary modes of transfer included observing the graduates and copying their practices, working collaboratively with graduates on projects and receiving specific close guidance from graduates. Transfer occurred intentionally and informally, taking place in short focused moments, via intense shared experiences, and through repetition of routine activities. Every level of the 4I framework of OL was experienced.

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