What Sticks: How Medical Residents and Academic Health Care Faculty Transfer Conflict Resolution Training from the Workshop to the Workplace

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Workshops in conflict resolution were given to enhance the ability of residents and academic health care faculty to collaborate in multidisciplinary teams, patient care, hospital committees, public health issues, teaching, and research. A qualitative research study on the transfer of learning from the workshops to the workplace reports on the attitude, knowledge, and skills consistently reported both immediately after the workshops and twelve months later. Learners' descriptions of workplace conflict confirmed they gained a positive outlook on conflict and their own ability to solve problems and apply conflict resolution skills, such as interest analysis and communication techniques, to gain perspective, reduce tension, increase mutual understanding, and build relationships in patient care, teaching, research, and administration.

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Professionals across many disciplines see the ability to assess, respond to, and resolve conflict as a key competency. Employment ads commonly include language that "the ideal candidate will have demonstrated excellent conflict resolution skills." A quick Internet search locates myriad introductory and custom-designed conflict resolution courses for leaders, executives, and personnel.

But what do we know about the effect of these courses on the conflict management skills of professionals? Anecdotally, instructors report receiving high satisfaction ratings on postcourse evaluation forms, which give a basic, first-level reaction assessment (Kirkpatrick, 1996). Follow-up research is scant on how professionals who take conflict resolution training transfer what they learned to the workplace (Deutsch, 2000b; Raider, Coleman, and Gerson, 2000). Evaluation research has concentrated on conflict resolution education in elementary and secondary schools (Deutsch, 2000b; Jones, 2004).

The University of Ottawa Faculty of Medicine began offering professional development workshops in conflict resolution to academic physicians, scientists, and administrators in 1997 and elective workshops to medical students and residents in 1998 and 1999 (Zweibel and Goldstein, 2001). Physicians are expected to work collaboratively as part of multidisciplinary teams in activities related to patient care, hospital committees, public health issues, teaching, and research (Frank, 2005; Frank, Jabbour, and Tugwell, 1996; Stockwell, Pollack, Turenne, and Slonim, 2005). Facilitating conflict resolution through collaborative problem solving and negotiation is an essential competency required to fulfill these responsibilities.

This research probes the practical question: What sticks? It gives an in-depth account of what residents and academic health care faculty who attended conflict resolution workshops say they learned and then found useful in their workplace. It examines whether the attitude, knowledge, and behavior changes they initially reported held up over time. A qualitative study on the transfer of conflict resolution skills will assist those who plan, teach, and support professional development initiatives in this and the related areas of negotiation and leadership.

Two-day introductory conflict resolution workshops were given to medical residents and academic health care faculty at the University of Ottawa, Faculty of Medicine (2001–2004) and the University of Alberta, Faculty of Medicine in Edmonton (2005). Using qualitative methods, the research examines changes in workshop participants' attitudes, orientations, and emotional responses to conflict. Guided by criteria suggested

by Deutsch (2001), it examines how participants understand and use constructive conflict resolution skills in various workplace situations. Data were collected from two time frames: when the workshops were given and twelve to eighteen months later.

The workshop uses experiential and active learning pedagogy to introduce a framework for working more productively with conflict. The framework draws from many classic conflict resolution works (Moore, 1996; Mayer, 2000; Fisher and Ury, 2001; Deutsch, 2000a; LeBaron, 2003; Thomas and Kilmann, 1974; Hofstede, 1980; Hall, 1981) and includes:

- Identifying sources of conflict and conflict management styles
- Uncovering the needs and concerns, referred to as interests, that motivate the demands or positions taken by people in conflict
- Recognizing the impact of culture on how people define and handle conflict
- Applying communication skills

The framework elements are presented as guides for analysis and not as a series of prescriptive steps. Participants are encouraged to find parallels and overlaps from their own disciplines, other courses, and readings.

Didactic teaching is limited to brief overview presentations so that more than 80 percent of the workshop time is spent actively engaged in small-group tasks, role plays, simulations, demonstrations, and facilitated discussions. The learning activities are structured to achieve "high road transfer" of knowledge through active self-reflection, comparisons, explicit abstraction of principles and skills, and participant construction of new examples. High road transfer refers to conscious application of abstract knowledge learned in one situation to new situations, while low road transfer involves automatic transfer of highly practiced skills (Custers and Boshuizen, 2002; Bransford, Brown, and Cocking, 1999; Raider, Coleman, and Gerson, 2000). The workshop does not define conflict. Instead, it presents diverse examples, ranging in scale from mild tension with a colleague caused by miscommunication all the way to interinstitutional conflict involving many stakeholders competing for resources. To tap into participants' prior experience and motivation, participants describe and analyze work-related situations they consider problematic and that they want to have the skills to address.

This paper focuses on what residents and faculty report having learned, immediately after the workshops and how they describe having used this learning in the workplace a year later. Companion research on workshops given to medical students is included in other presentations (Goldstein, Zweibel, Marks, and Manwaring, 2006). Future writing will include topics of particular interest to those developing medical training curriculum, such as when to teach conflict resolution; mandatory versus elective courses; comparison of the learning outcomes of medical students, residents, and faculty; and program design choices.

Research Methodology

Two-day workshops in conflict resolution were given separately to residents (n = 57) and faculty (n = 45) at two Canadian medical schools in two provinces. Attendance was voluntary except for anesthesiology and surgical residents in Ottawa, whose programs require attendance.

Qualitative research using grounded theory methods was used in triangulated data collection and analysis. At the time of the workshops, data were collected through confidential pre- and postworkshop surveys (residents, n = 41, response rate 72 percent; faculty, n = 32, response rate, 71 percent), anonymous workshop feedback forms, workshop observer field notes, and immediate postworkshop focus groups. Only surveys from respondents who completed both pre- and postsurveys were analyzed. The survey included closed-category questions using a five-point Likert response scale ranging from 1 (disagree completely) to 5 (agree completely) and openended response questions primarily concerned with respondents' attitude toward conflict and self-assessment of their conflict resolution skills. The workshop feedback form contained open-ended response questions.

At least twelve months later, in-depth, semistructured interviews of faculty physicians and scientists (n=18) and residents (n=6) were conducted using a question guide probing attitude toward conflict resolution and use of conflict resolution knowledge and skills. The interview pool included three University of Ottawa faculty members who attended a one-day version of the conflict resolution workshop that was incorporated into a five-day leadership program. A co-investigator and the research assistant-interviewer periodically reviewed the interview transcripts to determine if new themes were still arising. Saturation of themes was reached with the twenty-four interviews analyzed.

Focus groups and interviews were taped, transcribed verbatim, and checked for accuracy. Content analysis of the transcripts applied a grounded theory strategy extracting data through an open coding process. A modified framework approach (Pope, Ziebland, and Nicholas, 2000) was used with some categories initially set to reflect the research questions and the data collected in the survey. These categories were then expanded and refined and new categories added as they emerged from the data. Collection of data from two research sites allowed cross-referencing on the themes emerging and improved data reliability. The transcript coding and category development was done by a research assistant and a coinvestigator working independently using an iterative approach in which transcripts were reviewed several times as new categories were identified. Negative and deviant examples were noted in each category. Source identification codes allow referral back to the original transcripts. Discrepancies between the analyses were resolved by discussion, and a second co-investigator independently reviewed a subset of the transcripts and coding.

The data from all sources were then arranged thematically for discussion and interpretation by the co-investigators. All participants who were interviewed were invited to a member-checking focus group near the end of the study to discuss tentative conclusions.

Several methodological biases should be noted. First, the workshop was an elective professional development course taken by motivated, selfselected people who might have described changes in attitude and behavior more strongly than if they had been randomly selected. Interviewees were self-selected, and it is possible that only people who thought they had something positive to report were motivated to volunteer for interviews. Finally, two of the co-investigators also conducted the training, and although they were not present at either of the focus groups or interviews their status as instructors arguably introduces some researcher bias into the analysis (Greenhalgh and Taylor, 1997).

What Sticks: Overview

The research tracked the attitudes, knowledge, and skills consistently reported by residents and faculty both immediately after the workshop and at least twelve months later. It also analyzed their descriptions of working with conflict in their workplace to evaluate which conflict resolution skills were actually applied. Five key themes were prominent in both time frames:

- 1. "A new spin on conflict" refers to participants' new view of the constructive potential of conflict.
- 2. "Permission to take a breath" describes using a systematic framework approach to analyze conflict instead of reacting defensively or emotionally.
- 3. "The big eye-opener" reports on using interest analysis to understand other people's perspectives as a starting point for better management of day-to-day difficulties and larger, protracted problems.
- 4. "Knowing your own hot buttons" describes an increase in participants' awareness of their personal conflict management styles.
- 5. "I learned it's better to listen than to be smart" reports on communication skills used to reduce tension and create problem-solving opportunities.

"A New Spin on Conflict"

Participants gained positive attitudes toward conflict. In the responses to a preworkshop survey question, "Write down a few words that best describe your feelings about conflict," a substantial majority (more than 60 percent) of faculty and residents used only negative words and phrases to describe their feelings about conflict. These negative vocabulary words included dread, stressful, unproductive, difficult, time- and resource-wasting, avoid, anxiety, apprehensive, inefficient, frustrating, emotionally draining, and potentially destructive. A few preworkshop surveys included positive, constructive, or nonjudgmental aspects of conflict such as opportunity and challenge, it's part of our daily life, and can be useful to achieve change. Just two of the more than seventy preworkshop surveys described conflict with only positive words.

There is a major shift in substance and tone in the postworkshop surveys, with a majority of responses now including one or more positive aspects of conflict. Examples include those shown in Table 1.

In the immediate postworkshop focus groups, residents and faculty elaborated on how they now consider conflict to be a necessary stimulus for change:

Most people would say that [conflict] is a bad thing to be avoided at all costs and dealt with as expeditiously as possible. But I think that with

Table 1. Pre- and Postsurvey Perceptions of Conflict

Question: Write down a few words that best describe your feelings about conflict	
Presurvey	Postsurvey
ID# 519: "When facing conflict, invariably one can feel uncertain, apprehensive, annoyed, defensive. These are just a few I might experience."	ID# 519: "Opportunity to practice conflict resolution skills, grow as a person, and build a better long-lasting collegiality and relationship."
ID# 201: "Frustration/anger, avoidance at a cost to my own needs."	ID# 201: "Unavoidable, opportunity for learning, opportunity for effective problem solving."
ID# 206: "Always feel like running away."	ID# 206: "Challenge. Prelude to better understanding."
ID# 101: "Prefer to avoid conflict."	ID# 101: "Conflict is less to be feared and more to be used. It can be a positive force for moving forward."

this analytical framework, it actually gives you, well it certainly gave me the sense that well, maybe it's not too bad. Maybe it's just a development of an issue that needs to be solved with a great deal of effort. . . . That's a new spin on conflict that I've developed.

I have a feeling that what we are seeing—and I'm seeing it from my own experiences—is that conflict, if it doesn't happen sometimes, the organization never progresses very far. . . . It seems to me it is all about how you handle it. If you do it in a positive way, it becomes constructive for the organization, and you take a step further ahead than you did before. If there is never any conflict, you wonder if people are getting sleepy in your organization because as soon as you start to think and do things, conflict will arise. . . . And so the organization gets stronger and better all the time.

Just actually the revelation of the potential to solve conflict. Just sometimes conflict seems like such a barrier, and people concede to the fact that it's not going to be solved. It really can be. And it can be a constructive tool . . . being a very positive force. Because the conflict is usually identified as a problem—and then the problems get fixed—and then it gets better.

In the individual interviews more than twelve months later, residents and faculty reiterated how conflict became "a creative tension rather than a destructive force" and highlighted its role in promoting necessary change and creating the conditions for growth. Several people commented that the workshop normalized or "dedramatized" conflict, making it seem more ordinary, more interesting, and less scary. One faculty member reflected that in the past his negative attitude toward conflict caused him to miss opportunities.

Interviewees described making a deliberate effort to look at the positive potential in problems. "Seeing a more positive side of things" was understood as a first step in problem solving. Having accepted that "conflict may come with the territory," a faculty member felt more comfortable supervising residents and using problems as a source of growth in the learning process. Another faculty member now saw conflict as "more par for the course," and this helped her handle complaints more matter-of-factly.

At the same time, some interviewees balanced their comments on the positive potential of conflict with realistic expectations. For example, a resident remarked: "It's more, you know, just trying to work it through and see if a resolution can be achieved. I think recognizing that that's not always going to be the case."

"Permission to Take a Breath"

Immediately after the workshop, participants described how a systematic and analytical framework gave them a welcomed sense of control. They thought they could now act more logically and objectively rather than defensively or emotionally in conflict situations. Comments included:

The course was very helpful to me in standing back and looking at the situation more objectively rather than getting again emotionally involved; that's been probably the most important.

Because we have all those other tools and ways of thinking about the conflict it doesn't pose as much threat because you see some end in sight.

Participants expected to use the framework as "radar" to head off conflict or its escalation, to prepare for difficult situations, and to learn from events by asking, "What happened, what went wrong, what might you have done differently?"

Using an analytical framework also legitimized taking more time to deal with conflict. One faculty member expressed this as a sense of relief: "I feel I now have permission to take a breath when a conflict arises." Another acknowledged that she wasn't spending enough time on conflicts. A resident noted:

And just the idea that you have time. Because it always seems—I don't know, at least in my world it seems as though you're in a big rush and things have to be resolved now and yesterday, and you don't realize that, you know what, this isn't that big a deal. Let's take our time, and pause, and let the emotions sort of drain out a bit.

"Permission" to take the time to stand back and analyze also meant permission to choose the right time and place to work on problems. One resident felt empowered when she realized she could ask her preceptor for an appointment to discuss problems:

It makes me think now—instead of having that scrub sink conversation bringing up something—that I actually can call and make it a formal appointment, even with my preceptor, to discuss something. Rather than doing the rushed, "It doesn't matter, it doesn't affect me" kind of attitude—but it actually does. I think it's empowering.

Another resident expected to use his conflict resolution skills to first calm things down so that he could then take the time to analyze and solve problems later:

The ability to, when you're in that acute situation, to de-escalate it enough that you can leave and go and reflect and do all those other things to figure out the best way to go about it . . . just to realize that you're not going to solve it in the hallway in those thirty seconds. No matter how good you are, that's not an achievable goal to be able to deal with every problem in the middle of the hallway. But that you can deescalate it.

Faculty and residents describe a highly time-pressured work environment that made their resolve to take the time to unravel a conflict even more significant. Some were not convinced that it was possible to use a conflict analysis framework in their work environment. For example, a resident commented on how, given his busy workday, it was "unrealistic to apply conflict analysis to most problems," and it would have to be something "important to you."

Twelve months later, interviewees consistently reiterated that a systematic framework approach made them feel more "at ease," "comfortable," and "better able to deal with conflict" because they could be less reactive and emotional and more logical and objective. "Taking things personally" was seen as an obstacle to dealing with conflict, whereas an analytical framework allowed them to "diagnose" and be more "scientific." A faculty member remarked:

It was to do the analysis, break down the problems, who the stakeholders are, and who are the people that can help you. And plan for talking to them . . . rather than getting emotionally upset, to make specific plans and to carry through on those plans.

Interestingly, some interviewees said that just knowing there were systematic approaches to conflict was important, regardless of whether they remembered the specific ideas from the workshop. They could always, when necessary, refer back to the workshop materials or consult with resource people.

In their practical examples, interviewees consistently mentioned four changes in attitude and behavior in connection with the discipline of using an analytical framework: increased objectivity, taking more time, preparation, and problem solving. A systematic approach was associated with increased objectivity in handling criticism and complaints, working through differences in opinions and values with colleagues, and better relationships with patients.

Taking more time to analyze situations decreased the sense of urgency and crisis associated with conflict. One faculty member realized that rather than "shooting from the hip," he could "stop" and get "a good night's sleep, and think about it the next day" when things would feel less urgent. Another said:

Here again, I think one of the things I've learned is that . . . sometimes things that appear as a crisis are not really a crisis. I mean . . . is it really a crisis? And what do you need to do immediately? And what could be done later on with a more deeper understanding of the situation?

"Taking the time to look at the situation, to find out what's going on exactly" was also viewed as a way to break old habits and look for new strategies.

Using a framework also prompted more preparation. One faculty member used the conflict analysis framework in change management:

So, when I'm going to put in a new policy or a new procedure or something, I tend to think of, you know, what are the potential sources of conflict in going ahead? And try to anticipate them.

A senior faculty administrator reported that she now prepared in advance to deal with "flare-ups" between professionals.

I think the thing that was the most useful was the advice to, sort of, plan out how you would deal with conflict before you engaged in discussions with the conflicting parties. I have two very high-maintenance senior academics . . . who frequently come in[to] conflict over issues. And several times since I took that course I've pulled down the written material that you provided and sort of reminded myself of some of the strategies for trying to interact with the individuals. . . . And in fact when I took the course I was thinking it would be useful in my management of these two particular individuals. But over the year I've had two or three other situations where there's been a flare-up between two professionals. . . . In one instance it was over a clinical issue and it was two different physicians. You know, the strategies that were outlined in the workshop actually were quite useful to me.

Finally, the framework stimulated problem solving. One faculty member reported that she could now sit down "in a more formal point-by-point way" and, with the help of others, figure out the next steps. Another explained how analyzing gave her confidence to be more proactive and really delve into a problem to make sure that all aspects were completely addressed.

Some interviewees were very specific in ascribing their changed attitude or behavior to using the framework they learned in the workshops. Others rooted these aspects of their personal growth in multiple sources, including the workshop.

"The Big Eye Opener"

"The big eye opener" for many participants was the "power" gained by understanding the needs and concerns (interests) that underlie other people's points of view (positions). After the workshops, participants explained how identifying "the other stakeholders and reflecting on their interests" would "expand the problem," supply "new information," and draw other people in "as resources to reach some even better solutions that wouldn't be otherwise possible." They also understood how interest analysis helped them rethink their own perspectives: "What your objectives are and which ones you're willing to let go and which ones you are not." Analyzing stakeholder interests prompted the important "realiz[ation] that not everyone is going to think the same way I am" and led to being less "stuck to our own ideas and our own point of view."

Faculty anticipated using interests analysis in their work as chairs, program directors, mentors, and committee members, noting that it enhanced preparation, decision making, outcomes, and teamwork:

I think for me it's preparation. I think that was the most helpful thing and the most difficult thing for me. Insistence that we roll back and go through the stakeholder identification and so on. I think that [in the past] I've been comfortable going into conflict situations with no preparation.

For myself, [it's] including others in the decision-making process. If they feel they are part of the team they are more likely to go along with the final outcome. If they've been part of the planning from day one they're going to be more on board with what we're doing.

Twelve months later, interviewees enthusiastically reported using interest analysis to improve their everyday workplace interactions and deal with more protracted disputes. In general terms, they described more effective "negotiated" problem solving because they consciously worked "to get the other side's needs met along with yours." They were also able to identify a wider range of needs and concerns than before. Several people referred to using the "interest triangle" (Moore, 1996), a visual aid used in the workshop as a reminder to look for substantive, procedural, and psychological interests. They reported probing for the less obvious aspects of problems: "finding out the nonarticulated needs," which was often "what the actual problem was." A faculty member said that he now "look[ed] for different aspects of the conflict that are not on the table" because he wanted to be sure to "understand all of the points that they're saying. You know, like 'cause maybe they're only telling me three when there's really five points."

On a day-to-day basis, residents and faculty used interest analysis to handle disagreements, criticism, and complaints, and to provide feedback.

A chief resident had more confidence in mediating arguments and handling conflicts over schedules. A faculty member incorporated interest analysis into her formal evaluations of residents by remembering "to take into account the residents' interests and perspectives," which gave the evaluation a positive, problem-solving orientation. Another faculty member used interest analysis to remove the critical sting from a colleague's e-mail. Rather than getting caught up in the e-mail's implicit criticism, interest analysis helped her to "take that e-mail as important information. How we can make the schedule even better? Or what changes can be done in a constructive way?"

Faculty in administrative roles gave examples of handling routine tasks better. One faculty member reported turning a meeting that had become mired down by critique and blame into a problem-solving session by expanding the discussion to include the concerns of others who weren't present. A faculty member in a new senior administrative position adopted an interest-oriented perspective toward working with the people in her new job: "I really need to go and, you know, walk-a-mile-in-their-shoes type of thing to understand where they're coming from."

Taking a moment to consider other people's perspectives kept several interviewees from jumping too quickly to a conclusion, being overly critical or judgmental, and making negative assumptions about others' motives. One faculty member felt that this enhanced her professionalism and improved her relationship with medical trainees and colleagues because "it taught me to have respect for the other people in conflict, and not always jump to conclusions."

In addition to applying interest analysis on the spot in day-to-day events, there were examples of interviewees handling larger issues requiring more conscious, preplanned strategies. Several described informally acting as a "gobetween" or a "face-to-face" facilitator, helping colleagues involved in dispute focus on their real needs. A faculty member effectively intervened in a situation that had gone to "extremes," with one physician poised to report another to the accrediting body over what was in essence a mutual misunderstanding. Another defused a disruptive "blow-up" between a graduate student and a postdoctoral fellow over allocation of laboratory equipment and technical support. The disagreement had infected the work environment for the other staff; the faculty member met separately with each person and then held a discussion with both, in which she guided them in calmly listening to the other's explanations of his or her needs.

A resident involved in a multidisciplinary, multisite research collaboration used an interest-based approach to work out problems that had already brought some collaborators to the brink of pulling out of the project. The resident helped the members of his own team understand the perspectives of the other research units. At the same time, he arranged for meetings at which key people could first educate one another on the challenges faced by each division and then work through the funding and staffing differences that had emerged. He summarized:

I have been able to utilize the training to diffuse what would have been, what I would say would be a project-ending conflict and just being able to cool people down and say, let's get it for the common good.

Several interviewees talked about improving their long-term relationships with other members of the health care team by making an effort to understand interests. An anesthesiologist revitalized working relationships with surgeons by disengaging from the "chronic turf war" over the best anesthetic or procedure for cases:

The traditional anesthesia way of reacting to a surgeon that doesn't agree or is trying to tell you what to do is, you know, the back goes up and you resist, and you say, 'You know, how dare they tell me how to give the anesthetic.' But I think that despite still feeling that I'm the best person to judge, and my medical expertise should be directed at choosing the best anesthetic for the patient, I think that it's made me a little bit savvier at discussing with the surgeon, or coming to a mutually agreeable conclusion. Rather than just, 'Go sit down in the lounge, I'll call you when I'm done, and that's the way it's going to be.' Rather, trying to understand where they're coming from. Which is usually quite frankly just a question of getting the work done in the time that's allotted. . . . And if we take a little longer because we're doing something fancy, or doing teaching, or adding a nerve block . . . and they have the potential for having a case cancelled, which they frequently do because of [operating room] overruns . . . it is a valid concern. . . . It just made me look at it in a different, in a little bit of a different perspective. So now instead [I say], 'Look, we're going to do these nerve blocks, but we're going to arrange it this way and that way, and do them in recovery room between cases. . . . We'll just make sure that your cases are on time and we're going to finish at the end of the day and there won't be any cases cancelled.' And usually that solves the problem. And they're happy, and there's no more conflicts.

A senior resident in the emergency department used interest analysis to handle a disagreement with nursing staff over the treatment of a cognitively impaired older patient with serious complex medical problems. The nursing staff had balked at the resident's plan to insert a single invasive arterial line, even though the approach was worked out with the patient's physician and family. Over the course of the evening, the resident's "calm and respectful" questioning eventually turned up the nurses' "real concern" about causing unnecessary discomfort for a disoriented, elderly patient. A compromise emerged in which the resident agreed to abort the procedure if the arterial line could not be inserted after two tries, and the nurses agreed to find staff to monitor the patient if the procedure was successful. From the resident's perspective, the interest-based approach fostered a better long-term relationship with the nurses: "There are definitely less barriers to patient care when I work with them now than maybe there would have been if that incident had never happened."

A faculty member improved his working relationship with his department head by considering interests:

I mean, at one point I had a lot of conflict, not conflict but resentment, towards the head of our department for not moving faster with the particular program that I work in. It was a program that's under development and it's been very slow to kind of get going. And I had a lot of resentment about that. And feeling . . . that, you know, these patients deserve as much resourcing and all that as everybody else. . . . What it helped me to do was to really pinpoint—when I'm getting into that situation . . . to kind of step back a bit. And I've done this before but I'm doing it a lot more now. It's just to remind myself as to where my boss is coming from and what his priorities are and what his interests are and what his resources are and not worrying about it. I think I can apply that a lot, well, because I have the confidence in doing it.

"Knowing Your Hot Buttons"

Immediately after the workshops, residents and faculty reported greater selfawareness of their habitual patterns for dealing with difficult situations. They noted how understanding their own conflict management style allowed them to interpret other people's behavior more generously, which in turn reduced the emotional content of the conflict. One resident summed up: "I think that this program is for self-awareness, which helps avoid conflict. Knowing what gets your own back up. What are your hot buttons."

Although the workshop explored both the strengths and the limitations of conflict management styles, people often self-critically identified themselves as conflict-avoiders or appeasers. They also described their work colleagues as ineffective conflict-avoiders. A faculty member's comment that "people sure spend a lot of time avoiding it and then it only gets worse" elicited considerable agreement on the part of other focus group members.

Faculty talked about conflict avoidance as a sign of poor leadership. A faculty member remarked, "I think that one of the worst things would be that if as chairs we believe in this, and then we have a dean who would do anything to avoid conflict. It would be a total disaster for chairs; you'd never get backed."

Residents also talked with some frustration about chief residents who avoided dealing with conflict and thereby lost the opportunity to improve teamwork. Several residents promoted making conflict resolution training mandatory for chief residents:

Yeah, the chiefs all go through this. Because I know you work with chiefs who are very good at conflict management and other chiefs are totally . . . they don't want to get involved with it, right. And it's basically: 'you guys figure it out,' or 'I'm just going to do the call schedule for you. I don't want to hear it. I don't want to hear it, I don't want to see it. You guys deal with it.' But it's like, 'You're the chief resident. We're on your team. We have a conflict amongst the team members and you're not willing to . . . help in trying to go through a resolution—not seeing the value [that] an effective team is more of a productive team.'

Residents spoke about wanting to be more "assertive" about their own needs, particularly with respect to workload and in dealing with preceptors and chief residents. One resident commented on how the workshop helped him pinpoint what he needed to do:

The different, you know, styles of personality or negotiation . . . I mean, that in itself can be useful if you're in the moment and you realize what you're doing. Then you can change your style. So I think that can be really useful for me because I usually get shafted because I back down so badly. I mean, I'm doing extra weekends like crazy all the time. Extra call. And it just, it hurts my family, it hurts everybody else. I have to realize that it's not just affecting me, it's affecting my team, it's affecting everybody around me too. And when I get tired then I might start letting people down.

A group of residents identified two difficult situations they thought required more assertiveness: not standing by when witnessing abuse and not taking responsibility to stop racist or sexist behavior. In the first example below, two residents describe standing by silently while a chief resident publicly "reams out" another resident. They consider whether in the future they might use skills gained in the workshop to intervene. One of the residents suggests that the decision to intervene might hinge on being backed up by others.

FIRST RESIDENT: And I think now I have more confidence. . . . How many times I watch the chief resident, you know, totally reaming out a junior resident and the rest of the team is like, you know, looking away. . . . There's ten of us but you're not going to get involved. And maybe someone has more confidence to say, "Hey, you know . . . you're raising your voice. Can we do this somewhere else?" Instead of just ignoring it, and pretending it's not happening in front of you. That's happened so many times, and I've gotta be guilty of being part . . . kind of looking down. And everyone's drifting away until the chief resident is finished reaming out the junior. Raking him though the coals . . . yeah, but I'm thinking that's how we kind of escalate. I play a part in keeping that bad behavior continuing. So maybe if I had said, "You know, hey, can we just kind of go somewhere else. Like, the nursing staff's hearing." Being able to have the courage to say, "Hey, wait a minute, can we do this somewhere else?"

SECOND RESIDENT: And I think that's exactly so. It's not only action that can be harmful, but nonaction can be equally harmful. And if you're the only resident who kind of works through this workshop and understands the consequences, it might be hard to bring it up. I think it would important if everyone was on board. I think everybody would be much quicker to respond and say, "Yeah, you are right. You should stop it right now and work it through in a different manner."

In the second example, the residents discussed their ethical responsibility to speak up when the behavior involved serious issues of racism and sexism.

This wasn't directly talked about yesterday, but it's something that I thought about last night a lot after the talk about racism, sexism, jokes, implied or otherwise. And I thought that the people who are having these jokes said to them, or these horrible things said to them, shouldn't necessarily be the ones that bring these conflicts to task. And I think . . . we're a health care team, so maybe people who don't have this huge power differential . . . the other staff, the other residents, should be the ones who as a team are responsible and really step up. . . . You could really build something positive teamwise. That was just something I thought about in terms of the bigger picture of conflict. It doesn't necessarily have to be the person that's downtrodden upon. But the other people that are being vigilant and watching, that are friends and coworkers.

Both residents and faculty anticipated it could be harder than it sounded to avoid less and collaborate more. One resident noted that "in reality we may or we may not be able to apply this" and questioned whether it was sensible to "assume" that co-workers would be willing to collaborate. A faculty member realized that he still didn't have a handle on how to work with a colleague in a managerial position who didn't take "ownership for resolving an issue" and who was "ignoring the conflict."

Twelve months later, most interviewees were still unsure whether greater self-awareness of their conflict management style had translated into more effective behavior. Their comments were sometimes tinged with self-criticism. For example, one faculty member said with great emphasis, "I definitely need to sign up for an assertiveness workshop." Another talked about having a persona of "being a pushover" and still needing additional insight in how he affected others.

Avoidance and appeasement were still identified as the predominant styles and were still seen as an impediment to dealing with conflict appropriately. For example, avoidance was linked with not setting appropriate workload limits and with burnout.

At the same time, some self-described conflict-avoiders reported they were now making more conscious decisions about which "battles" to engage in, and some gave examples of more assertiveness. A faculty member said:

Well, I feel more comfortable confronting people, but I still have problems with that. Like nobody really likes to do that. But just recently there was something between one of my colleagues and myself, and in the past I probably would have ruminated on this thing forever. And I just kind of went to this person and I said, "You know, this happened, I'm not happy about it. . . ." And I said why I wasn't happy. And this

person apologized and . . . I offered a solution. She agreed, so it's over . . . instead of just kind of dragging it on. So, like I still don't do it very often. But I doubt that I would have done that five years ago.

"I Learned It's Better to Listen Than to Be Smart"

Physicians are expected to be proficient communicators with patients and families. Many participants had prior communication-skills training and considered the workshop "a good refresher." The workshop taught them to apply their existing skills in a new context. One faculty member summed up a general consensus: "But all of us have some of these skills ingrained through taking [patient] histories. We know how to actively listen. We just need to apply it somewhere else."

Listening to understand was consistently identified as the most important communication skill gained in the workshop. One faculty member underscored this when he said, "I learned it's better to listen than to be smart." The need to ratchet up listening skills struck a strong chord for one resident:

I think the great one I really realized [is] that I'm not paying that much attention. I have to admit that. But that is listening, and listening, and listening continually. We do sometimes really do selective hearing.

Communication tips covered in the workshop made some participants realize they could take more responsibility for how they communicate. For example, following up on the instructor's suggestion to avoid trigger words such as but, why, never, should, and always because they can sound accusatory or can undermine the speaker's intended message, one resident said:

Realizing what part, what do I play in any shape, in causing a conflict? Maybe not using those trigger words. When I'm really fired up and angry about something, not using "But, why?" It makes you think. Like, what part am I going to play in inflaming the situation?

Some residents expressed hesitation about using communication skills with people who hadn't taken conflict resolution training. In this vein, a resident said: "They don't have any conflict resolution training themselves, so they may not know that perhaps they should listen to the whole story before they start interjecting and commenting." On the other hand, during a focus group exchange on the impact of "power differential," one of the residents imagined using communication skills practiced in the workshop to bridge the power gap and set an example for other staff members.

I think also I found that sometimes when . . . you're put in that power differential, you tend to, you assume and mind-read what the other person's thinking. . . . To actually be able to have the confidence and go, you know: "I noticed you rolled your eyes about my comment. Did that really bother you? I got the sense that you might have been ticked off by what I said. Is that true?" You know, just so you can check. And maybe actually starting to . . . kind of ease that checking into the staff. So the staff are realizing, "Oh my gosh, am I rolling my eyes?" So maybe letting them become more aware that when they roll their eyes or they say this comment, it does, it's going to have an impact.

Twelve months later, interviewees talked a great deal about using communication skills to create an atmosphere conducive to resolving differences with colleagues, nursing staff, families, and research collaborators. For the most part, they identified the situations but didn't give many details about the communication exchange. They acknowledged both personal improvement and the need to continuously hone their skills.

Effective listening was repeatedly mentioned in connection with empathy and problem solving. Comments include:

Well, I think that number one you have to be an effective listener. . . . I mean, if you can't demonstrate to the person [you] understand, empathize with their concerns, and recognize what their values are, you're going to get nowhere.

Well, I definitely [now] try and listen to the other side first. Like, I'll definitely try and make sure . . . I understand what they're saying. Because I might not hear all of what they're saying. Or I might only hear part. So I definitely try and make sure I'm more complete and listening to all of their factors first. And then I'll also try and understand why that's an issue for them . . . and try and do it more as a problem solving.

Some faculty continued to comment on how "listening" was a new skill they gained in the workshop. A faculty member said, "I hadn't thought about the importance of really listening before." Others noted the reinforcement of specific, effective listening techniques, such as paraphrasing and checking. A faculty member explained:

Again, I think it reinforced the aspect of really listening. And it reinforced the issue of when you're discussing the conflictual situation . . . you also speak of your interpretation. So I've listened. This is what I'm hearing and [I say], "Is that correct?" and then "This is how I interpret it." That part of it, I think I probably wasn't doing that as well as I should. And so that's a skill that I really took out of the workshop.

Interviewees also reported asking more effective questions, which allowed them to understand other people's interests and get more complete information. They describe formulating questions in a calmer, more respectful manner, rather than with a negative or defensive affect. One faculty member said that she now asks questions to learn more about the situation before making judgments or taking a position. She believed that her willingness to ask more "clarifying questions" improved the tone of department meetings and kept conflict from escalating. Another faculty member described using questions during student evaluations to make the session more collaborative.

Limitations on Applying Conflict Resolution Skills

The postworkshop focus groups often began in an air of enthusiasm as people who worked together for two days shared their positive experiences and insights and expressed their appreciation for the workshop. The aspiration to use workshop skills was very high. These same sentiments were also quite evident in the interviews twelve months later. Participants felt upbeat about the course and already felt supported just by having taken it.

In the postworkshop focus groups, faculty and residents joked about how easy it would be to find conflicts to practice on. Their few hesitations or concerns were based on some uncertainty about whether others would be receptive, time and resource pressures, and difficulty stemming from hierarchical structures or leadership problems.

Some residents were concerned that others without the same training would be resistant, unable, or unwilling to work through conflict. One said he might be "rebuffed by others when trying to use these skills." Another said that he might "get bogged down by other's limitations." In a similar vein, some faculty suggested that physicians' attitudes could be a barrier.

One faculty member remarked, "The problem with doctors is that doctors are very, very autonomous individuals; they seem to do things the way they like. Doctors are not naturally cooperative individuals." Some others commented that physicians are cynical and skeptical about these kinds of approaches. Adding to this concern was the repeated observation that people who sign up for workshops to improve "soft skills" such as conflict resolution are the "already converted." Those who really need it don't think to come.

Residents and faculty talked a great deal about time pressure, overwork, and fatigue, which some thought could be an impediment to using more time-demanding conflict resolution approaches. Some thought that heavy work demands would reduce their personal capacity to use skills. A faculty member noted that "under stress" or "at crunch time" "former bad habits are more likely to reappear."

Hierarchy in the academic health care workplace was generally acknowledged as a potential barrier. Residents spoke about their vulnerable status as trainees, and faculty members wondered if residents would be comfortable initiating difficult conversation. Faculty also spoke about managers and leaders without administrative or people skills and institutions with top-down decision-making processes.

Overall, a general sense of increased confidence was tempered by a realistic "Now I need to try this out" attitude, summed up by one faculty member's statement: "We have the opportunity to now practice new skills. This was a nonthreatening environment, but we do need to bring this back to our workplace."

Interestingly, twelve months later, most of the hesitation participants raised during the focus group discussions was not mentioned again. For example, none of the interviewees described meeting resistance or being rebuffed when they used their conflict resolution skills, and none of the interviewees described a failed attempt. Of course, this doesn't mean that people didn't experience resistance, nor does it mean they were always successful. It is quite possible that participants who were pleased with the course were reluctant to report negative experiences, or those who had negative experiences did not volunteer to be interviewed. Some faculty continued wondering if residents would use these skills given their status in the hierarchy, and there were still general comments on poor leadership and management skills as impediments to resolving conflict.

In both the focus groups and the interviews, participants suggested ways to support conflict resolution skills in the workplace. Universal training for faculty, residents, and nurses was enthusiastically proposed as a way

to create a more conflict-resolution-oriented culture. Chief residents thought training should be offered at the beginning of their term. Some suggested intradepartmental training so that "everyone is on the same page," and a faculty member from a unit where several others had attended workshops thought that the "common language and appropriate behaviors" was helping prevent conflict. Others wanted to mix with colleagues from other services. Of course, not everyone thought universal training was necessary, and there were several debates on the pros and cons of mandatory courses. One resident pointed out that people who took these courses could be effective role models.

An idea that was popular with residents was to set aside time for weekly or monthly sessions of general discussion of "issues" arising in a unit. Having a venue where difficult topics were expected to be raised was seen as giving conflict resolution both time and legitimacy and could potentially remove some of the inhibitions created by hierarchy. Residents from three specialties reported that their programs had already done this. One resident noted that having a specific time to just "chew on things" was helpful, even if the program appeared to be going well. Another resident thought these meetings could be the perfect place for him to apply his conflict resolution skills.

Some faculty also wanted a regular, informal forum to talk with colleagues about their experiences in applying conflict resolution skills. The only feedback they were getting postworkshop came from their self-assessment and an occasional positive remark by someone they had dealt with.

Discussion

This research responds to Deutsch (2000b) and Coleman's recommendations (2000) for longitudinal studies on the effects of conflict resolution training. It also responds to academic medicine's recognized need for broad training strategies to develop personal conflict management skills (Marcus and others, 1999; Sinai and Hodges, 1999).

Sources of conflict in health care organizations and application of informal conflict resolution principles and systems to health care disputes has been written about extensively (Siders and Aschenbrener, 1999; Kressel and others, 2002; Mamchur and Myrick, 2003; Marcus and others, 1999; Chervenak and McCullough, 2004; Glickman, Comer, Filler, and Fine, 2002; Hoelscher and Comer, 2002; Trombly, Comer, and Villamil, 2002; Porter-O'Grady, 2004).

Research documenting inadequate physician preparation and training for managing stress and conflict suggests that most physicians learn these skills through "anecdotal peer-to-peer education," which commentators note is usually uninformed by leadership research or benchmarked best practices (Stockwell, Pollack, Turenne, and Slonim, 2005, p. 668). For the most part, conflict resolution is not generally part of any formal medical training curriculum except for some interprofessional education initiatives (Fulmer, Flaherty, and Hyer, 2003; D'Eon, 2005; Coogle and others, 2005). There is some limited research evaluating workplace conflict resolution training for health care workers. Haraway and Haraway (2005) evaluated workplace impacts of a six-hour course in conflict management given to supervisors and managers in a health care organization; Saulo and Wagener (2000) studied mediation training for staff at three health care organizations and a managed care insurance company.

The researchers in our study already had five years' experience developing and giving conflict resolution workshops to medical trainees and faculty. The training content was based, in part, on several years of preworkshop needs assessments and wrap-up discussions on whether the workshop objectives were met. Feedback comment forms had already confirmed that participants were highly satisfied with the workshops and considered the skills taught to be relevant to their work. This paved the way for delving more deeply into the transfer of learning from the workshop to the workplace.

Applying criteria for evaluating effective conflict resolution training (Deutsch 2000b, 2001), one finds it clear that the workshops meet many of the recommended measurements. Participants develop a positive outlook toward conflict and toward their own ability to solve problems. They can explain how they apply constructive conflict resolution skills, such as interest analysis and communication techniques, to gain perspective, reduce tension and defensive reactions, understand others, increase mutual understanding, and build relationships. They give examples of using conflict resolution skills in the four primary domains of academic health care: patient care, teaching, research, and leadership in administration.

The participants' descriptions of the five changes in attitude, knowledge, and skills elucidate how the workshop experience increased their confidence and ability to manage conflict. First, seeing conflict as just a problem waiting to be dealt with created the momentum necessary for participants to overcome avoidance behavior and engage in problem solving. Second, strategies for taking the time to step back and analyze a difficult situation reduced participants' defensive and emotional reactions that had interfered with their

problem-solving efforts in the past. Third, striving to meet the needs and concerns of all the parties affected—including their own—increased participant's empathy, reduced their negative assumptions about the motivation of others, and promoted information gathering and their use of communication skills. Fourth, increased awareness of habitual conflict management styles helped participants pinpoint when habitual behaviors were interfering with getting their own needs met. Fifth, participants became motivated to listen to understand, which, in turn, increased their empathy and supported their use of interest analysis.

The five changes reported track most of the main themes in the workshop's conflict resolution framework, with two notable absences. First, participants retained the broad idea that the various sources of conflict could be used as a diagnostic tool (Moore, 1996; Mayer, 2000), but they did not remember the specific content within each category. Participants viewed the specifics as something they could look up later, if necessary, when preparing to deal with a difficult situation. The participants may not have found the details in this element of the framework immediately useful.

The second, and more significant, absence involves culture and its impact on conflict, which participants did not raise in either the focus groups or the interviews. A few references to the hierarchical nature of the profession and generalizations on physicians' attitudes could be seen as having a cultural dimension in the broad sense. However, none of the participants' descriptions of how they handled conflict were based on their understanding of any aspect of culture. This was a course objective that was not met.

The research presents a realistic picture of what participants took away from a short professional development course. The pedagogical approach of using a conflict resolution framework as a guide for self-refection, inquiry, preparation, and analysis worked well to prepare professionals for managing conflict in diverse workplace situations. The framework promoted a disciplined, structured approach to conflict that participants found useful, regardless of whether they remembered the specific labels or details in the framework. As one interviewee pointed out, with time the details and categories would become blurred, but the idea of applying a framework would continue to stick with him.

The research does not allow generalizations about causal connections between the workshop and specific attitudes and behavior changes. The diversity in participants' prior experiences, level and type of medical expertise, and work roles clearly influenced which aspects of the course where important to them and consequently what they took away from it. In the year between the course and the follow-up interviews, individual participants report taking on new jobs with more responsibility and more opportunities to resolve conflict, enrolling in additional courses, reading books and articles on the topic, and being mentored and coached.

The research flagged several longstanding and systemic problems in the academic health care work setting that require larger strategies to address: time and resource pressures, hierarchies within the various health care professions, the hierarchy between residents and preceptors, intergenerational differences in what knowledge and skills are important, and physicians' preference for autonomy. In addition to the earlier quoted example where a resident describes a chief resident verbally dressing down a colleague, in one workshop there were also descriptions of abusive behavior toward female residents on the part of physicians and resident colleagues. Even though the workshop may have assisted some individuals with strategies to deal with issues of this type, these are institutional problems that require concerted institutional action.

The research also identified ways in which institutions can bolster conflict resolution skills. Participants recommended offering conflict resolution workshops to the majority of health care team members. Faculty wanted venues for exchanging ideas and experiences with colleagues. Residents raised the possibility of setting aside regular program time for general nonmedical discussions where problems could be discussed and aired noncontentiously. Finally, some participants wanted more courses on working with their own conflict management style. Consistent with other research, participants tended to self-identify as conflict avoiders (Kressel and others, 2002; Aschenbrener and Siders, 1999), and some wanted assertiveness training.

Future directions in training and research could focus on addressing the systemic barriers rooted in hierarchy within the health care professions. To this end, the researchers have been invited to redesign and evaluate a conflict resolution workshop as part of a larger research initiative, "Interprofessional Collaborative Practice: Building our Community of Health Care Champions," funded by Health Force Ontario IHEIF.

The researchers have recently completed an interactive Web-based teaching resource that will be combined with active classroom learning. This blended learning approach will partially address the time and resource pressure that limits workshop participation. It will also expand workshop participant's opportunity to review and apply the targeted skills over a

longer period of time. The Web site will be launched as a free training resource through the University of Ottawa. The researchers are also expanding the program further through a train-the-trainers Web site, currently in production at the University of Ottawa's Centre for e-Learning. This new site is targeted at conflict resolution instructors in many disciplines. It will describe with detailed examples how conflict resolution skills can be taught using blended learning, and it will incorporate links to the interactive Web-based modules.

Conclusion

This study demonstrates that even a short professional development course in conflict resolution can make a difference in the conflict management skills of professionals. Over a year later, participants report applying conflict resolution skills to difficult situations in diverse workplace settings.

"What sticks"—or in other words, which conflict resolution skills transferred to the workplace—appears to be rooted in some straightforward, though powerful, teaching points. In a two-day workshop, participants can gain the perspective that conflict doesn't have to be overwhelming and destructive. They can gain confidence to approach conflict systematically, rather than just reacting to people or events. They can be motivated to understand and consider the needs and concerns of others along with their own. The communication skills of listening and asking questions can be revitalized and effectively used to de-escalate tense situations, create empathy, and generate understanding as a prelude to problem solving.

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