

*Key Questions for Training and Practice***How does an “opinion leader” influence my practice?**

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Adoption of new knowledge, skills or attitudes into clinical practice involves numerous factors, including social influence. Change theory suggests that a group of emergency physicians will not alter practice solely via democratic or objective processes, but through the social influence of individuals (opinion leaders [OLs]) within the group. Opinion leaders are respected sources of information who are connected to novel ideas and possess sufficient interpersonal skills to exert influence on others' decision-making. We discuss methods to identify OLs and the limited evidence that supports their influence on clinical practice. An understanding of the role of OLs may assist emergency physicians with incorporating new ideas into their clinical groups.

EDUCATIONAL SCENARIO

Driving home from a staff meeting you scratch your head in confusion, wondering why your suggestion to change your group's use of an anticoagulant in the treatment of acute coronary syndromes was never considered. Despite a seemingly clear presentation and very strong evidence from the literature, the discussion never really took off. On further reflection, you realize that group consensus palpably and acutely shifted when a well-regarded colleague was unsupportive: “In my experience, this new drug is inferior to our standard treatment.” Momentum never built and the proposal fizzled. What happened?

HOW DO CLINICIANS RESPOND TO CHANGE?

The diffusion of innovation requires 4 elements: the innovation, communication, time and a social system.¹ Adoption of new clinical practices is dependent on 3

basic influences: perceptions of the innovation, the clinical context and the characteristics of the individuals engaged with the innovation. One framework that addresses this latter element distributes clinicians across a normal curve with the extremes representing innovators and laggards, with the remainder of the curve including early adopters and the early and late majority.² This conceptual framework suggests that change in practice does not require influencing a group majority. Rather, focusing change efforts on early adopters can influence the majority. Similarly, without buy-in from this key segment, change efforts can be resisted. In effect, early adopters can lead opinion within a clinical group.

WHAT IS AN OL?

Opinion leaders are respected sources of information with sufficient interpersonal communication skills to exert influence on others' decision-making.³ Because physicians live and work within a social environment, external influences certainly impact learning. For example, social learning theory emphasizes the influential power of leading by example and the ability to modify others' behaviour by modelling alone. Learners are obviously more likely to emulate a behaviour when positive consequences are associated with the new action.¹ Paradoxically, an OL can promote or inhibit innovation, depending on their perception of the potential change coupled with their verbal and nonverbal responses to the proposed change.⁴

A standard OL mould does not exist because the clinical contexts and the social networks differ across specialties, institutions and geographic locales. Thus, identification of OLs can vary by site, situation and regional preferences. Although a person may self-identify as an

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OL, doing so can be perceived as self-appointed elitism.⁵ In fact, OLs are most effectively identified via group consensus.⁶ Finally, the evidence, though insufficient, suggests that formalizing the OL role may diminish effectiveness.⁷ Table 1 provides an introductory outline of different techniques to identify an OL.^{1,5}

Different studies have employed various methods to identify OLs, limiting the ability to reliably compare results across different settings and interventions. Recurrent findings indicate that an effective OL must be socially connected, but not necessarily specific to a specialty. The heterogeneous scope of practice within emergency medicine can produce many OLs across diverse fields outside of the specialty. However, “super-specialists” externally (and formally) labeled as OLs without local social connections, certification within the field or ongoing clinical practice have more difficulty effecting change within a community.^{3,8} Although OLs

need not be personally innovative, they must be connected to novel ideas and to practice pioneers.

WHY DO WE NEED OPINION LEADERS?

Opinion leaders represent an often untapped resource to ensure that patients receive medical care based on the best evidence. Historically, the delay from trial publication to incorporation into consensus statements and guidelines can extend beyond a decade.⁹ Even then, guideline-directed care is often neglected.¹⁰ Unfortunately, the relationship between years of experience and current standard of care are often inversely related¹¹ and traditional continuing medical education has only modest effects on practice to improve patient outcomes.¹² Opinion leaders can offer one bridge to span the knowledge translation gap via early adoption of new evidence and subsequent influence on the majority of a clinical group.

Table 1. Methods to identify opinion leaders¹⁵

Method	Definition	Advantages	Disadvantages
Celebrity	Regional or nationally recognized people are recruited	<ul style="list-style-type: none"> • High visibility 	<ul style="list-style-type: none"> • Personal conduct may be contradictory • Uncertain expertise or commitment
Self-selection	Solicit volunteers	<ul style="list-style-type: none"> • Low cost • Easy to implement 	<ul style="list-style-type: none"> • Undefined ability or motivation • Recruitment barriers
Self-identification	Leadership surveys identify leaders within a group	<ul style="list-style-type: none"> • Qualitative attributes of leadership assessed 	<ul style="list-style-type: none"> • Uncertain survey validity • Time, expense and inconvenience of surveying the group
Staff selected	Group observation-based identification	<ul style="list-style-type: none"> • Easy to implement 	<ul style="list-style-type: none"> • Undefined motivation • Staff misperceptions
Positional merit	People currently in other leadership positions nominated	<ul style="list-style-type: none"> • Easy to implement • Pre-existing leaders already identified 	<ul style="list-style-type: none"> • May lack clinical relevance, time, motivation or group consensus
Judgment based	Select community members identify leaders	<ul style="list-style-type: none"> • Incorporates pre-existing established community trust 	<ul style="list-style-type: none"> • Multistep process • Nonrepresentative community judge • Biased judgment scale possible
Expert identification	Ethnographers filter through communities to identify leaders	<ul style="list-style-type: none"> • Widespread applicability 	<ul style="list-style-type: none"> • Expert-dependent process • Time • Expense
Snowball method	Potential leaders identify other potential leaders who continue the process until no new leaders are identified	<ul style="list-style-type: none"> • Widespread applicability • Provides measure of the social network 	<ul style="list-style-type: none"> • Index-case dependent validity • Time
Sample sociometric	Randomly selected group members identify leaders and most frequent nominees are selected	<ul style="list-style-type: none"> • Widespread applicability • Provides measure of the social network 	<ul style="list-style-type: none"> • Sample bias may skew result • Extremely difficult, expensive and time-consuming in larger communities
Sociometric	Most of the group interviewed to identify leader and majority opinion leader(s) selected	<ul style="list-style-type: none"> • Entire community network can be mapped • High validity and reliability 	<ul style="list-style-type: none"> • Time-consuming • Difficult in large groups • Personally inconvenient

DO OPINION LEADERS CHANGE PRACTICE?

Opinion leaders have changed group practice patterns in a variety of settings, as detailed in a recent Cochrane Review.¹³ Although limited by a small number of trials with potential biases, the findings suggest that OLs (via group discussions, informal consultations and protocol revisions) can influence practice more effectively than standardized lectures, distribution of education materials, audit and feedback, or combined interventions.

Specifically, Soumerai and coauthors¹⁴ evaluated the impact of audit and feedback compared with an OL plus audit and feedback in the acute management of acute myocardial infarction. They demonstrated a significant improvement in the appropriate use of acetylsalicylic acid and β -blockers, but did not impact the use of thrombolytic therapy or lidocaine. Berner and colleagues¹⁵ evaluated audit and feedback alone compared with the addition of an OL to improve the use of best-evidence medical management in unstable angina and noted an improvement in prescribing antiplatelet agents and heparin. Finally, Lomas and colleagues¹⁶ compared the distribution of educational materials or audit and feedback with the impact of OLs advocating for a trial of labour in women with previous cesarean deliveries. They demonstrated a significant increase in vaginal deliveries in the OL group. Although this evidence suggests that OLs can change practice, further research is required to build the limited base of OL research, to determine why educational effects are not as broad as anticipated and to identify potential confounding variables.

HOW CAN I APPLY OL THEORY TO MY PRACTICE?

In an era of information overload, simple awareness of research findings is insufficient to modify established practice for the many health care professionals. Engaging OLs to champion an idea may permit an effective and efficient change in group practice. Additionally, knowledge of OL theory can be used to monitor external influences on personal practice. It is important to acknowledge that the use of OLs does not imply that the sought-after change is good, evidence-based or lacking in self-interest. For example, in the past, OLs have been targeted and employed by the biomedical industry to promote sales at the expense of outcomes-based evidence.^{17,18} Whether these influences are local (e.g., consultant colleagues, pharmaceutical representatives) or remote (e.g., professional guidelines), independently monitoring the biases through full and transpar-

ent disclosure and personally reviewing the supporting evidence underlying the positions of an OL will safeguard against inappropriate change of practice. Whenever possible, the OL's supporting evidence should be research-based rather than authoritarian dictate. Furthermore, the following criteria should be met:¹⁹

- evidence should be of the highest possible quality;
- individual study results should be valid and plausible;
- benefits of changing clinical practice should outweigh the risks, including financial costs; and
- change should reflect the clinical setting and health care system of the practice.

RESOLUTION OF THE EDUCATIONAL SCENARIO

Opinion leaders can be used via several mechanisms to promote change in your group's anticoagulation practices for acute coronary syndromes. First, you could identify a willing OL within your practice setting using the methods described in Table 1. Alternatively, you could persuade the contrarian OL who initially dissuaded the change in practice to become a supporter of the new anticoagulation recommendations. When attempting to alter the practice of individual clinicians, it is most essential to provide the strongest research evidence for and against the new treatment strategy in a nonbiased fashion so that the recommended change is based on science rather than supposition. A third approach would be to invite an external OL who is a champion of the desired change in practice into your group as a discussant at an educational symposium.

CONCLUSION

Changing the behaviour of physicians and health professionals requires more than authoritarian didactics or traditional continuing medical education. Emergency physicians and other health care professionals can employ OLs to positively influence their peers and clinical milieu. The identification of an OL can vary by practice site, specialty and community. An OL need not be an innovator, but must have access to innovators, clinical credibility and an established social network. The most effective OLs come from within the environment in which the change in practice will be implemented. Formalizing the OL role can dilute influence. Finally, self-awareness of the influence of OLs empowers clinicians to guard against unduly biased influences.

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ANNOTATED REFERENCES

Berwick: A succinct overview of the science and psychology of innovation offering a 7-step pathway to accelerate organizational change. The author is the chair of the Institute for Healthcare Improvement. The early innovator-laggard curve described previously is illustrated in this reference.

Valente and Pumpuang: A narrative review describing techniques to identify OLs, including advantages, problems and prior real-world experience with each method. The authors also report a literature review quantifying the use of each method in prior research.

Doumit et al.: A Cochrane systematic review to assess the effectiveness of local OLs to improve health care professional behaviour and patient outcomes. The authors report on 12 studies of heterogeneous interventions of variable duration in multiple settings with inconsistent effectiveness.