Implementing Change for Effective Outcomes

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Change is rapidly becoming an integral component of healthcare improvement. To implement change effectively, it is necessary to provide clear vision, leadership, and adequate time to develop followers. Coordination of activities and integration of changes in practice to promote positive outcomes are needed for success. This article analyzes the concept of change illustrated through a quality improvement intervention-based research project.

Change is an essential component of nursing practice. Behavioral change and adaptation to illness are complex processes necessary for improving the health status of individuals and communities. The nurse is in an excellent position to influence and lead patients toward making the changes that are needed to improve their health status.

Likewise, it is important to influence organizational change to improve health outcomes. Translation of research into practice may increase the safety and effectiveness of patient care activities. Healthcare delivery systems are under more intense scrutiny since the Institute of Medicine released two reports on the state of healthcare delivery in the United States. Regulatory and economic changes that affect the healthcare delivery environment require that organizations rapidly and frequently adopt changes.

Change is a complex concept that must be approached with careful planning. To implement change effectively, it is important to consider the complex system, social system, or individual for which change is being planned. The idea, improvement, or innovation needs to be introduced as the change and then specifically defined in clear terminology. Leaders must communicate, share vision and goals, and problem solve when issues arise during the implementation or unfreezing phase of change implementations. By prioritizing actions and using multiple strategies that consider the environment, the barriers or obstacles that block effective change can be overcome. Finally, once change has been implemented, it is necessary to refreeze the system to anchor the new practice within the culture.

Implementation of change is often brought forth when innovations occur that enable a process to result in improved outcomes. In an effort to adopt an innovation successfully, the concept of “change” needs to be fully understood so that a theoretical model for influencing change to occur successfully, in a planned way, can emerge.

Thoughts on the Term “Change”

Change may be threatening to individuals who want to preserve the status quo. There is security in familiarity with tradition, and tampering with the experience people have in doing something the way they know best causes some degree of fear. Change can be exciting to others who embrace new technology and methods early and who thrive on new challenges. Change is a concept that has been rooted in psychology, sociology, business administration, economics, industrial engineering, and the study of human and organizational behavior.

Change takes a long time to accomplish. Many organizations or systems embark on an initiative that they would like to integrate into existing systems or use to modify existing systems. Ideally, to implement organizational change, the change agent needs to enlist followers in the vision and in understanding the rationale for the change. Leaders develop programs and followers who then must support the change. The rocky times may be difficult to get past because this period of time in the evolution of a change process requires leadership with an active ear, problem-oriented troubleshooting of the issues, and attention to the details of the implementation. When leadership is actively attuned to the needs of the system, change will be imple-
Definitions of Change

The Oxford English Dictionary defines change as both a verb and a noun. Change as a verb includes such definitions as to substitute for, replace by another, give up in exchange for something else, and alter something. Change as a noun is defined as the act of changing or substituting one thing for another, the passing from life, or the act of exchange.

The concept of change is examined using the hybrid model of concept analysis. The hybrid model has a theoretical, a fieldwork, and an analytic phase. The theoretical phase includes a literature review, defines measures and meaning for the concept, and proposes a working definition to be tested throughout the concept analysis.

The fieldwork phase sets the stage for field observations to gain empirical data about the concept. By negotiating entry into practice sites implementing a change process, participant observation methods can be used to observe and record the characteristics of the setting. For example, the concept of change can be analyzed within the setting where clinical practice guidelines are being implemented. Cases then need to be selected to develop the fieldwork, using individuals or groups to clarify the concepts. If the concepts are relatively clear, one or two indicators can suffice. If the concepts are not clear and no indicators are apparent, Wilson’s methods for concept analysis can enhance the hybrid model. The Wilson method uses a model, contrary, borderline, and related case. The next step in this process is to collect and analyze the data. The work of Schatzman and Strauss and Wilson can guide the analysis of data, which begins halfway into the data collection phase.

The final analytical phase provides the opportunity to work through the findings and evaluate whether or not the concept is supported within the population being studied. The hybrid model provides a means to analyze the impact of change, in this case by using a quality improvement (QI) project in primary care practice settings that are working to implement clinical guidelines within a common electronic medical record (EMR). This real world change project offers a view into the experience of individuals who are faced with the challenge of integrating new actions into their practice. Data were collected through field observations of the nature of physician, office staff, and ancillary care providers’ reactions to implementing new actions to improve quality of healthcare. Theoretical concepts emerged from the empirical data that supported the conceptual analysis of change.

Literature Review

The term “change management” is used to describe the process of implementing change. It is a term most often used in the business and organizational literature, which offers resources to increase the effectiveness of strategies aimed at producing change. Nickols defined change management as the task of managing change, an area of professional practice, and a body of knowledge. In managing change, the intent is for the process to be planned, systematic, and effective. A proactive response or a reactive one can result from the change management efforts. Managing change is a process of moving from one state to another, with improvement being the result. The idea that the result is an improvement suggests that the former process was problematic.

Major organizational change requires most people to learn new behaviors and skills. Katzenbach et al described the development of real change leaders as the mechanism to successfully implement change. These leaders know how to achieve high standards of performance by changing the behaviors and skills of people in the organization.

Kotter described change as transformation to improve organizations. Change efforts allow organizations to shift conditions, improve competitive standing, and position a few for a more effective future. The downside is that it is a painful process that is subject to many errors. Success in implementing change only occurs with high quality leadership at the forefront of the process of change.

The diffusion of innovations model provides a conceptual model that crosses many disciplines. For social scientists interested in social change, diffusion research offers a way to gain understanding about change. One can follow the spread of a new idea over time, as it moves through a social system. Diffusion is the process of communicating to members of a social system across time. Rogers’ classification of the members of the social system includes innovators, early adopters, early majority, late majority, or laggards. Diffusion research has practical value in research utilization, connecting research-based innovations to users of that knowledge.

Leadership is critical to guide a change toward an improvement-oriented clinical practice setting. There are four major barriers to widespread adop-
tion of quality improvement in healthcare: difficulty and expense related to the efforts, a lack of return on investment, a lack of demand for improvement, and the local nature of healthcare. To activate providers to make the changes in their practice that are related to improved healthcare quality, the change agent needs to consider the mixed financial incentives, differences in training, fragmentation of physician practices, resistance to change, lack of data, and high costs related to undertaking quality improvement efforts.

Implementation of clinical guidelines requires careful attention to the knowledge, beliefs, and attitudes of the providers within a specific practice environment. There is inherent variation in value systems, workflow, reimbursement systems, and geographical location that affect decisions related to the provider and patient.

Physicians do not change behavior, adopt “effective” interventions, and delete “ineffective” interventions from practice patterns after being exposed to evidence-based clinical guidelines in a passive manner. Change in medical practice is largely affected by the practice environment and the implementation strategies used. Multiple strategies for implementing change need to be evaluated, considering the characteristics of the guideline, the practice environment, and the external environment. Successful change requires identification of a specific process for change. There are “no magic bullets” for changing professional practice. A variety of methods work to some degree, and multiple approaches are usually most successful.

A group trying to develop a more efficient flow of patients in an emergency department practice found that by working together “online” as a team and working “offline” with specific follow-up activities improved results. Relationship barriers were found within the team that were problematic, so these were resolved “offline” or between team meetings, which facilitated the effectiveness of the change process. These separate “offline” meetings served to open discussion, gain input about process changes, address potential concerns of team members, and help staff better understand the goals of the change.

Complexity Theory

Complexity science also provides some important concepts that can be used to respond effectively to the challenges and current problems facing healthcare systems. Change occurs within complex systems. Complexity science suggests trying multiple approaches and letting direction within the system emerge to reveal what is working best. This promotes the idea of allowing the knowledge within a team and its own experiences guide the accomplishment of goals and the implementation of change by development in a creative and flexible manner. There has been “consistent inconsistency” in quality improvement outcomes because of the nature of complex systems. The research agenda regarding quality improvement needs to shift toward understanding how and why it works. A qualitative method using participant observation and case studies can assist in developing this knowledge.

Meaning and Measurement of Change

Change is the substitution of one situation or thing for another. It is a process of transforming or altering the state that once was in place. Leaders need to be in place to guide the process of implementing change, and they need to be aware of the potential obstacles or barriers that may work against the change being implemented.

To measure change, it is necessary to first define what the change is in order to be clearer about how to measure whether or not it occurred as intended. The main elements in the diffusion of new ideas are: (1) innovation, (2) communicated through certain channels, (3) occurring over time, and (4) among members of a social system. An innovation is an idea, practice, or object perceived as new by an individual or another unit of adoption.

Fieldwork Phase

The fieldwork phase for this concept analysis of change was conducted within an Agency for Healthcare Research and Quality (AHRQ) funded research project investigating the effectiveness of a quality improvement (QI) model in primary care practice settings using a common EMR tool. Clinical guidelines for cardiovascular disease and stroke prevention were disseminated to primary care practices throughout the United States. Ten intervention sites received a quarterly quality improvement intervention of education-related academic detailing and assistance with action planning to improve practice adherence to the study indicators. Academic detailing involved providing up-to-date research literature regarding primary and secondary prevention of cardiovascular disease and stroke.

Practice site intervention visits were conducted using a direct participant observation process. The fieldwork focused on an assessment of the change process that was underway at six of the practices. Field notes were recorded using a template modified from the work of Crabtree and colleagues in their Direct Observation of Primary Care studies.
Results

The data for six cases were collected over a 2-month time frame and validated with other members of the research team. In one solo nurse practitioner (NP) family practice in the Northwest, the change needed to generate results for the QI project created stress for the NP. It was difficult for this provider to re-engineer her practice to actually use the EMR tool she had purchased. Change represented an extra activity, not a replacement of one thing for another. This provider was motivated by the idea of improvement and the knowledge she was gaining. She was trying to lead her staff, but she had not overcome the obstacles in the infrastructure of her electronic records system to make the practice changes needed for true improvement.

In a larger practice setting of family physicians in a small town in the Northwest, leadership to guide change practice was absent yet critical to the success of the project goals. Time was a major factor in this busy practice. There was follow-up on selected action plans the group had previously made, indicating some measure of change process was underway. This practice also was not using the EMR at the point of care with the patient and was unable to benefit from some of the templates that can direct practice according to the guidelines.

The nursing manager at this practice setting indicated that factors related to recruitment and retention of the nursing and ancillary staff included working relationships, staff morale, and orientation to the practice environment. These issues have an impact on the environment of care and change. Communication within the group practice and joint priority setting were stated as important goals to guide change efforts in the future. Physicians in this practice articulated high value for the improvement effort underway but had not modified their habits or practices to measurably demonstrate effective change or improvement.

Another large Northwest internal medicine practice was struggling to modify their practice. There was little standardization at this practice, and each provider did things his or her own way. One physician at this practice used documentation templates exclusively and appeared frustrated by the lack of adoption of practice changes by the other team members. He had experienced a tangible benefit from using the templates in the form of a $5000 reduction in his annual transcription fees. There were few systematic processes adopted in this practice that favored full use of the EMR. All members of this practice stated almost universally that time was an issue, but in general the setting did not seem as busy as other large practices. Communication, priority setting, and focus were missing to achieve the benefits of the QI model.

A solo family physician in the Southeast was making positive results happen. His entire team was fully on board with the nature of the change that was introduced. The group had introduced new technology to improve their practice outcomes after learning from other participants at the study's investigator meetings. With the academic detailing provided by an external, quality improvement-oriented physician, they continued an active dialogue and set new goals easily. The physician and office manager provided strong leadership, and there were no staff retention issues present. This group represented the classic early adopters noted in Rogers' diffusion of innovations model.

A small Midwest practice was interested in quality of care and invited a health plan physician to observe the intervention site visit and the goals for improvement. One of the practice physicians wanted to make it known that quality costs money and making these changes in practice should be rewarded by the payers. The physicians in this practice were using the EMR much more actively and doing recall of their patients as appropriate, a practice change that was new with this QI model. The lead physician in this group reflected that she had her own barriers to some of the treatment goals. She admitted that she was not active in treating borderline hypertensive patients and would like to explore that further. This was an environment that was investing in care coordination and increased communication with their patients, although they were concerned with cost and economic impact of these interventions. This reflected an intellectually stimulating environment where change was systematically occurring.

Another small Midwest practice was highly motivated. They wanted to achieve outstanding results and were communicating well as a team. They notified their community about their participation in a national research project on quality of care. They provided outreach to their patients, increased patients' awareness of prevention of cardiovascular disease and stroke, and worked internally to improve systems associated with using the EMR tool. Communication was the strongest factor in this setting, leadership was visible and present, and the practice exemplified working as a team in a setting larger than a solo practice.

Analysis

The fieldwork illustrated a number of the issues brought forth in the literature review. In reviewing the cases studied, there was a clear model...
case in the solo practitioner from the Southeast. This team exemplified clear communication, strong leadership, early adoption of technology, and an active improvement-oriented culture. Change occurred easily in this environment. The physician in this practice engaged his team with charismatic leadership, and the team members followed his lead. Quantitative evaluation data from this project confirmed that the concept of change was active in this practice.

The contrary case was the large internal medicine practice in the Northwest. This group did not embrace change nor synchronize its practices to achieve improvement-oriented goals. There was a striking lack of evidence of the concepts Kotter described as essential for change. This group did not have straightforward communication, leadership was passive, and time was a problem. There was little coordination of activities or discussion of the goals of the QI project outside of the intervention site visits. One physician was engaged in improvement activities; however he seemed to doubt he could have any influence to change behavior within this practice.

In the large family medicine practice, a borderline case was seen. A borderline case is an odd case that highlights what is needed in a true case. Despite oral support for improvement activities and care coordination, little was changing within the practice to improve the quantitative indicators measuring the project’s effectiveness. There was no regular forum for communication or leadership of a large group. The team did not seem to see change as possible; the physicians did not see how they could use the computer at the point of care. This particular behavioral change was one of the most critical to the success of the project. This was a practice too large to make change happen without strong leadership and clear “buy in” to the goals for improvement.

The concepts that emerged from the fieldwork illustrated the necessary components to improving outcomes through a process of planned change. Communication, leadership, coordination of activities, and integration of the changes into practice patterns are essential to achieving positive outcomes of an intervention designed to improve quality. The literature was supported in the fieldwork particularly in the model case. The contrary case demonstrated the lack of the criteria for change to occur, and the borderline case presented the lack of congruence between articulated viewpoints of participants to the needed behavioral changes required to improve practice outcomes. Change is the substitution of one situation for another. The fieldwork provided a rich context for which to evaluate change as a conceptual component to improvement.

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**References**


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