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Original Article

Commitment to Change: Theoretical Foundations, Methods, and Outcomes

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Abstract: *During the past three decades, the commitment-to-change strategy has been used to promote as well as measure behavioral change. The present inquiry stakes out theoretical foundations for the commitment-to-change strategy and identifies methods associated with its implementation for both promulgating and assessing behavioral change. Theoretical foundations of the commitment-to-change model are compared with the Innovation-Decision and Change and Learning models. Outcomes associated with all three models are linked to corresponding methods of assessment.*

Key Words: Continuing medical education (CME), commitment to change, models of change, self-directed learning, theories of human action

Those completing formal continuing education activities are frequently asked whether they will make a change in practice based on their participation in the educational activity. However, the follow-up question of whether a change was made is seldom asked, and even less often are learners asked what prevented them from making a change they had intended to make. These three questions comprise the heart of a model called commitment to change. Although methods of the model derive from the work of scholars reported in the 1960s, commitment to change currently is undergoing a resurgence of interest from educators in the health professions.

This article investigates the potential of commitment to change to alter behavior and measure outcomes. There are three main parts that consider the following: (1) the fundamental relationships between science and judgment and a conceptual framework to facilitate measurement of outcomes; (2) theories of human action, learning, and organizational behavior; and (3) the methods of commitment to change. Ways that external fluctuations can influence delivery of care are also discussed, alongside communication as a means to stabilize organizations delivering health care. The novel role of self-directed learning in promulgating and responding to change is highlighted. Finally, cautions and questions are raised about studying and implementing commitment to change inside and outside the workplace.

Science, Judgment, and Conceptual Framework

Science and Judging

Those eager to study or apply outcomes research frequently turn to the dictionary to define its

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central terms, outcome and assessment. An outcome results from something: it is a final product or conclusion reached through a process of logical thinking. Assessment is the act of evaluating or appraising.[1] To be able to assess outcomes, we must believe not only that we can cause something to occur, but that we can also measure the human experience. We ask science to provide us with an objective accounting of our actions, and yet science itself is a product of the conscious mind. The possibility that consciousness can directly influence the behavior of physical and other systems has not been categorically dismissed.[2]

The pressure to measure outcomes is a modern phenomenon, intensifying with the 20th-century development of behavioral statistics and research design. The standards for evaluating human behavior continue to be situational, involving comparisons with other individuals or groups and socially determined criteria for judging behavior.

Conceptual Framework for Measuring

Two terms often used in judging behavior are competence and performance. Competence is defined as the possession of required skill, knowledge, qualification, or capacity.[1] Many educators and organizational consultants acknowledge three components of competence: attitudes, knowledge, and skills. Each of these may be measured outside the workplace and in laboratory conditions. Performance is the execution or accomplishment of work.[1] Unlike competence, performance can never be understood through studies of decontextualized practice. Performance evaluation requires the recognition of individual human behavior in relation to social conditions, expressed through speech, action, values, systems of thought, and organizational action.[3] Decisions regarding competence and performance require human judgment: they are qualitative decisions. If decisions are informed by scientific or other rigorously acquired data, they are likely to be more valuable in the concise determination of outcomes.[4]

Approaches presently popular for evaluating competence and performance reveal a common conceptual framework (Table 1). The leftmost column displays methods and data sources for determining outcomes; the rightmost reports outcomes ordinarily assessed by the data collection methods and sources listed. Outcomes range from conscious attention to an idea through change in performance and promotion of the innovation to others. Interviews and questionnaires measure attitudes. Written and oral tests measure knowledge; behavior observed under controlled conditions measures skills; and patient charts, patient satisfaction, and records of resource utilization are used to assess outcomes of patient care and judge the performance of care givers.[5]

As learning in the workplace of health care practitioners ties more closely to the organizational goals of cost reduction and improved quality of care, performance data become more available to those interested in changing their behavior or modifying the behavior of others.

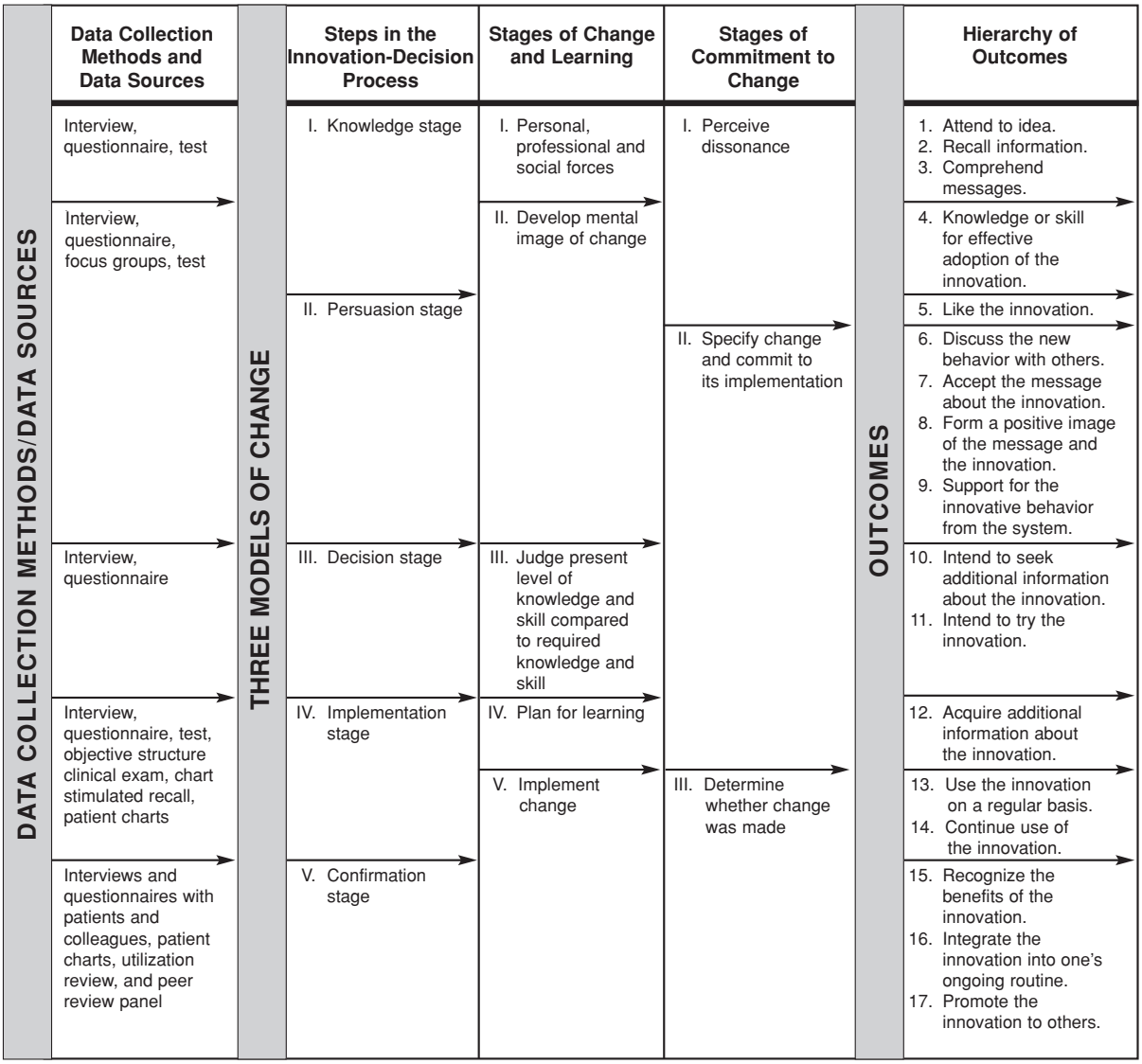
Human Action, Learning, and the Health Care Organization

Organization, Behavior, and Communication

Health care is practiced in organizations: conventional wisdom holds that organizations are social systems of behavior, open to the external environment. Figure 1 represents an open-system health care provider organization exchanging health care services for money and information resources from the external environment.

The internal environment of the organization includes systems for providing health care, maintaining physical space and equipment, and managing human and material resources. One might expect that patterned behavioral movements in one part of the organization will lead predictably to movement in other parts. But, because the organization is open to environmental input, it is in a continuous state of flux, adjusting to variations in

Table 1 Three Models of Change, a Hierarchy of Outcomes, Data Collection Methods, and Data Sources Associated with Each



Adapted from Rogers.[8]

the environment that surrounds it.[6] Patients and third-party payers from the external environment receive the product of the organization (health care services) and provide the organization with resources (money and information). As all of the systems press toward more sensitive interactivity, the need to protect against extremely subtle external influences and internal interferences grows in importance. One approach to securing such protection is through communication.

Communication involves creating and sharing information. It enables persons internal and external to the organization to reach mutual understandings.[7] Communication influences the organization, but communication is in turn influenced by both the organizational structure and behaviors

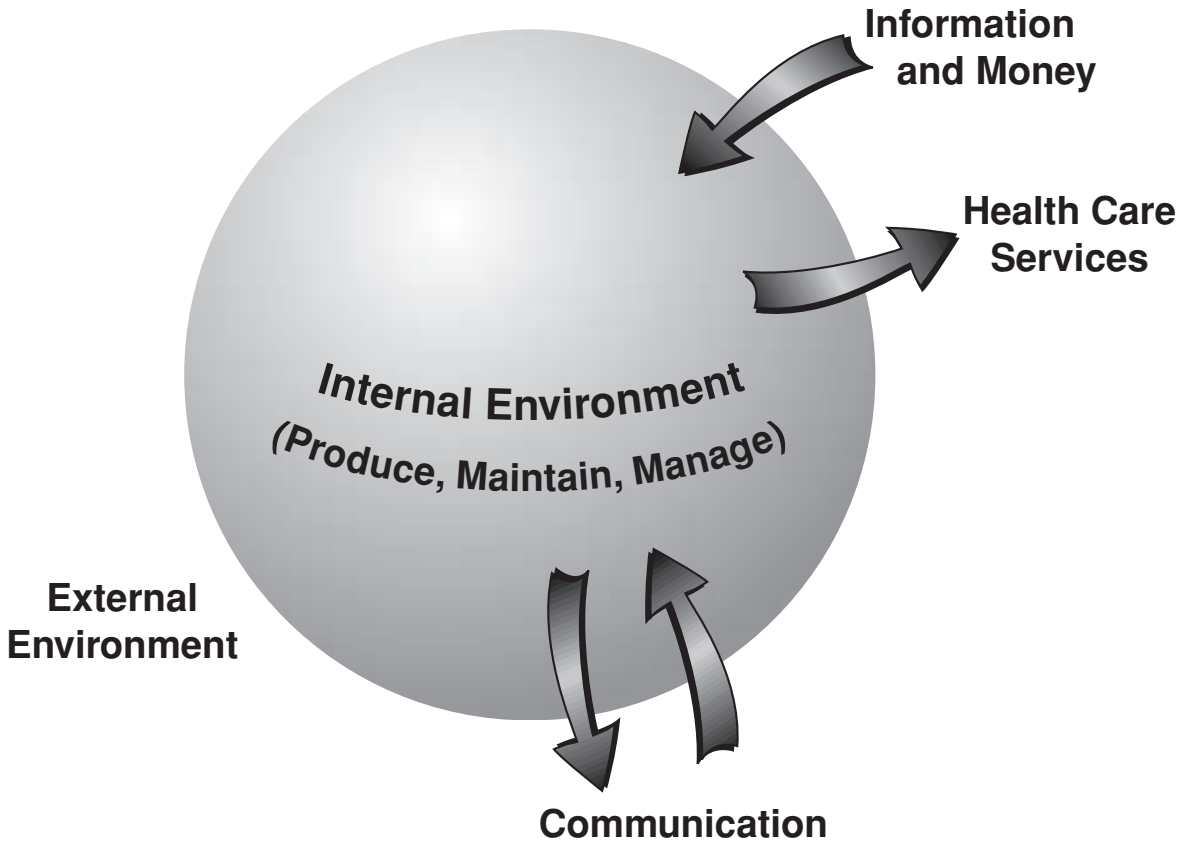


Figure 1 An open system health care provider organization.

of those who hold roles and responsibilities associated with the organization. The formal and informal intentions of the organization, articulated thoughtfully as organizational goals, tend to predict the behavior of those associated with the organization. The division of units and differentiation of roles within the organization influence the direction of communications and the completion of tasks. The knowledge, skills, and attitudes plied by workers and shared with one another affect not only the quality of goods and services produced, but the process of work itself. The transactional nature of the organization with its external environment dictates that organizational leaders can never know everything about the systems that influence the organization and are in turn influenced by it. As a result, continuous measurement, analysis, and learning are responsibilities incumbent on those who accept leadership in organizations providing health care.

Human Action and Learning

In continuing education in the health professions, psychology and sociology dominate research and practice. Psychology is defined as the science of the mind or of mental states and processes, including human nature; sociology is the science or study of the origin, development, organization, and functioning of human society, including fundamental laws of social relations and institutions.[1]

Differences essential to sociological and psychological perspectives are reflected in two

contrasting approaches to learning. Rogers, speaking from a sociological perspective, asserts that innovations contain unique qualities that are attractive to those involved in changing.[8] The innovation is passed from person to person or from system to system, with the likelihood of change dependent upon how well the innovation fits the needs of the organization. (Stages in Rogers' Innovation-Decision process and associated outcomes are matched in Table 1.) Coming from the psychological point of view, Maslow asserts that the instinctual need of the individual to survive and thrive renders learning a means to that end.[9] He further suggests that feelings cannot be separated from the cognitive functions associated with learning or its likely success.

A third perspective reconciles differences in interpretations of motivation and behavioral change between the sociological and psychological schools. Bandura proposes that people are neither driven by inner forces nor buffeted by environmental stimuli.[10] Rather, there are some times when environmental factors constrain human behavior, and others when primarily personal factors regulate the course of environmental events. Learning occurs when model behaviors are observed by individuals, with diversity in modeling fostering behavioral innovation. Extending these ideas to physicians, Fox et al. acknowledge an interrelationship between an individual's psychological needs and the social environment.[11] They recognize professional values unique to the health care practitioner involved in changing and learning. The inner drive to be a competent health care provider is accounted for, in tandem with the cognitive awareness of advances modeled in the clinical environment and adopted to help improve patients' outcomes. The model of Change and Learning is highlighted in Table 1, with corresponding outcomes, assessment methods, and data sources.

Information and emotion are essential to action in the theories supporting both the Innovation-Decision and the Change and Learning models. Regardless of their disciplinary origins, be it psychological, sociological, or social-psychological, they converge around the behavior of adult humans engaged in learning to make sense of their world. The attitudes of adults engaged in such behavior often are seen as predictors of success in changing human behavior, including professional performance.

Self-Directed Learning, Cognitive Dissonance, and Human Action

Self-directed learning expresses attitude. It enables adults to cope with the subtle day-to-day incongruities as well as the more bizarre surprises of life. Just as self-sufficiency reveals confidence in one's resources and ability to meet one's own needs, self-directedness expresses confidence in one's resources and ability to learn. In self-directed learning, individuals take the initiative, with or without the help of others, to diagnose their learning needs, formulate learning goals, identify human and material resources for learning, choose and implement appropriate learning strategies, and evaluate learning outcomes.[12]

Questionnaires have been designed to measure self-directedness, and enable comparisons of individual scores with the scores of others whose attitudes also have been tested. The Oddi Continuing Learning Inventory (OCLI)[13] and the Self-Directed Learning Readiness Scale (SDLRS)[14] are two such indices. These tests focus on personality, initiative, and persistence in learning over time to explain self-directedness. Both recognize that instruction does not account for most human learning, and that self-directed instruction is too limited to describe the complex activity of self-directed learning. The OCLI and the SDLRS require several minutes to complete, longer to scale, and expertise to interpret. Both measures, however, have promise to bridge an unfortunate schism separating two types of idealogues: those who believe dogmatically that affective needs trigger learning, and those who steadfastly espouse that intellect precipitates action.

The learner's intellectual sense of difference between current conditions (what is) and desired conditions (what ought to be) is sometimes called cognitive dissonance. The theory of cognitive dissonance suggests that when the gap between what is perceived to be and what should be becomes great enough, the learner acts to resolve the difference.[15]

What causes cognitive dissonance? This is a complex question that presently has few entirely satisfying answers. Some hold that it is the human desire to find meaning in the world.[16] Others believe individuals act to protect themselves and to preserve the cultures that nurture them.[17] Still others suggest that dissonance is an everyday condition, arising not only from the occurrence of new or unforeseen events, but because life presents situations full of contradictions and less than absolute answers.[18] Regardless of its source, cognitive dissonance can cause the individual to act, choosing among alternative pathways and advancing a commitment to change.

Commitment to Change

Methods

Because it is easy to use and the number of reports of success have been high, commitment to change is drawing increased attention as a means for promoting change and a method for measuring it.[19] Commitment to change harnesses the information and emotion that are motivating individuals to succeed in learning and changing. The methods are practical and simple, involving a facilitator, evaluator, and learner in a sequence of information-sharing activities.

From the stream of ideas ordinarily and continuously crossing through consciousness, the facilitator or evaluator asks the learner to specify a change to be made (often as a result of participation in a planned continuing education activity) and to designate a level of commitment to implementing it. The level of commitment frequently is circled on a Likert scale ranging from 1 to 5. The specificity of the intended change is associated with cognitive clarity, whereas the Likert scale captures strength of emotion. Thirty to 45 days after initial data collection, the evaluator reminds the learner of the intended change and of the level of commitment. The learner responds with a report, which may indicate change, no change, or reasons why change did not occur.

Change is the desired outcome of the commitment-to-change strategy. The outcome may be reported in terms of the learner's altered attitude, knowledge, or skills, including performance. Although planners may designate instructional objectives or competencies to be imparted, the learner chooses the size and complexity of change to be made and accepts the responsibility for implementing it.

Table 1 enables comparisons of commitment to change with other models of change, outcomes, and methods of assessment. The theoretical foundations of commitment to change include perceived dissonance, specification of change with commitment to succeed, and determination of relative success. The major methods of the commitment to change model ordinarily include (1) the initial request for a change to be specified, (2) the designation of a level of commitment, and (3) a follow-up inquiry 30 to 45 days after the initial inquiry to determine if the specified change was achieved, and if not, why not.

Signatures often are acquired on the questionnaire with the initial request for information and the designated level of commitment. The reminder statements with follow-up inquiries ordinarily involve self-reporting questionnaires. The learner maintains substantial control over the purpose, content, form, and pace of learning, and is also the primary judge of when change has occurred or what prevented it from occurring.

Cautions and Questions About Commitment to Change

There can be times when the self-directed learner makes a mistake, loses motivation, or suffers

demoralization. It is during those times that a facilitator may have the greatest input. From the moment a facilitator or evaluator requests specification of a change to be made, she or he becomes involved in the learner's process of change. Present studies suggest that interventions reflect the biases of planners, teachers, and other facilitators.[20] The influence of evaluators can also be accounted for in the very acts of questioning learners and reporting information to interested others.

Serious conflict exists between the need to isolate and quantify the power of the intervention and to objectify reported results, since important questions remain about the commitment-to-change strategy and the science beneath it. The present literature fails to fully explain the extent to which reported outcomes are influenced by the following factors: the act of asking the learner to specify a change; the act of specifying the change or the degree of specificity within the response; the act of commitment or the level of commitment; the complexity of responses, both cognitive and emotional, to a reminder at 30 to 45 days; the signature on the initial questionnaire; the materials, methods, or resources of the educational intervention; the values and biases of planners, teachers, and evaluators; and the power of the initial commitment in terms of obligation to one's self, one's facilitator, one's evaluator, or other personal, professional, or social influences.

Even though self-reports of changed behavior have uniformly reported a high degree of success, it is important to learn more about who honors a commitment to change and why. Is a clearly specified change with a high level of commitment synonymous in outcome value to a records review? Can the widespread system of educational intervention followed by measurement to determine outcomes be reduced to a simple agreement to change?

Many health care organizations accept responsibility for educating those they employ or otherwise reimburse for services rendered on behalf of the organization. The individual's sense of obligation to learning and success in such situations must be explored, for the loyalty of learners, facilitators, and evaluators, so organizational goals may be tested against their personal dedication to professional values. These values might include presenting a full complement of services to all learners or patients, and action in those directions may conflict with organizational goals. Not only should the classrooms of health care organizations be used to assess the attitudes, knowledge, and skills of professionals; it is appropriate for facilitators and evaluators to assist organizations and learners to explore the meaning of their goals, increase the value of their communication, and facilitate innovation throughout the organization. Such leadership requires facilitators who model the attitudes they promote and are willing to recognize the limits of the science they seek to master. After all, the understanding of human action based on the idea that behavior may be goal directed or regulated by a feedback control is, in itself, a product of awareness, attitude, conscious endeavor, and deliberative thought, all of which are theoretical constructs subject to the benefits and limitations inherent to one human judging the competence or performance of another.

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