The Triple Aim’s Missing Link: Meaningful Engagement for Patients with Chronic Conditions

Amy Bucher and Raphaela O’Day

What will it take to optimize health system performance and, most critically, patient outcomes? The Triple Aim is the Institute for Healthcare Improvement’s (IHI’s) answer to this question and encompasses three areas of improvement:

• the patient experience, as measured both through quality and satisfaction;
• population health, as measured by outcomes; and
• reduction of cost.

While each pillar of the Triple Aim is clearly essential for optimal performance and outcomes, we argue that there is a fourth, equally critical pillar: engaging the patient in the system of care.

Although the health care system clearly offers opportunity for improvement, we believe that much of the real work of improving health outcomes takes place outside of the system, within the patients’ daily lives. Data indicate that providers may spend no more than 12 percent of their total work time interacting directly with patients,1 with an average patient visit length of just over 20 minutes in 2010.2 Although no clear relationship between provider visit length and patient outcomes has been established, it is clear that patient satisfaction drops when provider visits are shorter.3

Even in the best case-scenario where patient and provider spend an adequate amount of time in an appointment to fully explore the patient’s health concerns, the hard work of changing behaviors happens outside the office. Patients and their caregivers are the ones who must live into dietary and activity changes, take medications and measure biometric progress, and pay attention to the day-to-day details of their health. Unless the patient is fully engaged in his or her own health, the Triple Aim cannot fully achieve its objective.

The Triple Aim and the Polychronic Patient

To be clear, the systemic issues that the Triple Aim is intended to address are significant. Patients with chronic conditions represent a large segment of the population, with 53.9 percent of all patients seen in the United States in 2010 having at least one chronic condition and 39.5 percent having two or more.4 These patients accrue significant health care costs. In 2013, Oliver Wyman determined that although polychronic patients — people with multiple chronic conditions — represent only 5 percent of the total U.S. population, they drive 45 percent of health care costs,5 due to factors such as emergency room (ER) visits and overutilization of services.

Once a person has been diagnosed with four or more chronic conditions, his or her health care expenditures soar to over seven times the national average.6 With the passage of the Affordable Care Act (ACA) and its provisions for outcome-based reimbursement,
health systems have a vested interest in helping patients succeed at living into the recommendations of their providers and complying with instructions.

The interventions that currently exist within health plans and systems to help people cope with chronic conditions suffer from a set of common problems. Delivering high-touch coaching or counseling is extremely high cost. Because of human capital and other resource constraints, it is also not scalable. And, as more and more members suffer from polychronic conditions, the cost and scalability issues intensify. Finally, it is difficult to get members to engage with interventions outside of the doctor’s office.

Although financial incentives can increase initial participation in programs such as health risk assessments, the impact of these incentives does not typically sustain behavior change in the long term. Moreover, patients who are not engaged in their own care incur up to 21 percent higher health care costs than their more engaged counterparts. For the Triple Aim to succeed, we must find a way to improve patients’ sustained engagement with their health over time.

Engaging Patients

When patients are engaged with their health, they feel a sense of ownership over it. The engaged patient collaborates with providers and supporters (such as friends or family members) to achieve desired health and personal outcomes. Engaging patients to become active participants in the health care process requires understanding both individual motivations for change as well as supporting the members’ holistic medical, emotional, and daily living needs.

Psychological theory and research suggest that an engaged patient is being supported in three fundamental needs. According to Self-Determination Theory, people share basic needs for autonomy, competence, and relatedness. That is, patients must have some sense of control over their health experience, believe in their ability to take action and experience progress, and feel understood and accepted. When these needs are supported by the system, patients are more likely to feel motivated and engage in positive health behaviors.

We sometimes speak of patient motivational levels as if they range from low to high, with highly motivated patients being the ones to show engagement in health. The reality is slightly more complex. We also should consider motivational quality, which speaks to the factors underlying a person’s motivation. Motivational quality can range from the totally extrinsic to the totally intrinsic. (See Figure 1).

In general, intrinsic motivators are more likely to sustain long-term behavior change. In between those two extremes are introjected motivation (e.g., the internalized nagging voice reminding you of what you “should” do), identified motivation (in which a behavior is consistent with other goals you have), and integrated motivation (in which a behavior is part of your identity). In general, by supporting people’s basic needs of autonomy, competence, and relatedness, we can help them find motivators closer to the intrinsic side of the motivation spectrum, and in that way help promote sustained behavior change.

How Digital Health Coaching Brings Patient Engagement to Life

The application of this theoretical approach has been coined “motivational design.” The beauty of motivational design is that, as an approach, it can be applied to any type of health intervention, including face-to-face encounters as well as digital program design. In our HealthMedia® Digital Health Coaching programs at Johnson & Johnson Health and Wellness Solutions Group, we strive to bring these underpinnings of patient engagement to life. Here’s how.

Autonomy: Supporting a patient’s autonomy means giving the person as much choice as possible, often within a set of constraints (e.g., losing weight nearly always requires limiting calorie intake). A person feels autonomy support when behaviors are presented in
a way that allows them to express volitional choice. That is to say, even if the person does not enjoy the specific behavior, he or she sees it as a stepping stone to reach a larger goal that he or she does value. A person who really wants to lose weight for intrinsic reasons will be more engaged in selecting a low-calorie meal each day than a person whose only reason for losing weight is to satisfy a nagging spouse.

In the context of Digital Health Coaching, then, the first step to supporting autonomy is helping the user create a framework for volitional choice. We begin the coaching experience by stepping the user through the process of thinking about important personal goals and values. These values are then threaded through the program experience to highlight how individual health behaviors contribute to the achievement of the overall goal. At every point in the Digital Health Coaching experience, the user is kept mindful of his or her personal goals and values as a way to promote autonomous choice.

**Competence:** Supporting someone’s competence means helping them learn and achieve. Human beings are naturally hardwired to want to experience growth and success. Tactics to help them do that include offering positive feedback when a behavior is aligned with the goal, timely and specific feedback when a behavior is inconsistent with the goal, and sequencing learning of skills logically and transparently so that a person is more likely to experience success as he or she tackles the list.

**Figure 1:**

Types of Motivation

- **Amotivated**: I am not motivated
- **External**: My employer/doctor/coach told me I need to
- **Introjected**: I know I should
- **Identified**: The behavior is consistent with my goals
- **Integrated**: The behavior is part of my identity
- **Intrinsic**: The behavior feels good

Adapted from Segar & Hall. Think Intrinsic Motivation is the Holy Grail of Exercise Participation? Think Again. Society of Behavioral Medicine Annual Conference, April 29, 2011.


Within Digital Health Coaching, we highlight a user’s areas of success, no matter how small. Especially for a polychronic patient who may feel overwhelmed by constant negative health feedback, acknowledging the things that are going right can be a powerful motivator. We also strive to make constructive feedback timely and specific, particularly through tools such as Track Your Health, which provide granular activity data. Finally, the assigned activities within coaching are tailored to the individual user’s beginning state and eventual goal; they are designed to be appropriately challenging and get more so over time as the user makes health improvements.
**Relatedness:** Supporting a user’s sense of relatedness requires conveying warmth and positive regard. People who feel recognized as individuals, whose personal characteristics are acknowledged and positively regarded, feel supported with respect to relatedness. Relatedness also can be supported by conveying belongingness to a relationship or a larger group.

In Digital Health Coaching, our tailoring technology is the cornerstone of how we support relatedness. The program content is highly personalized based on each individual user’s data. The unique combination of both condition-specific and psychographic user data including readiness for change, motivation, self-efficacy, and personal barriers to change are foundations to delivering the right information, in the right way, and at the right time to support behavior change.

Research on tailoring shows that people who read tailored content show brain activity in the neural structures associated with memory and self-relevance. This suggests that the personalized content is in fact triggering a sense of relatedness. Digital Health Coaching also supports relatedness by emphasizing users’ membership in social groups, whether it be coaching them through communication techniques and social support strategies for family and friends or by sharing normative feedback that helps users understand how other poly-chronic patients like them cope with health behavior change.

The outcomes associated with Digital Health Coaching suggest that motivational design can help engage patients, including those with multiple chronic conditions. The Johnson & Johnson HealthMedia® CARE® For Your Health program, which addresses management of chronic conditions, has been found in two peer-reviewed studies to significantly reduce medical utilization costs in a health system setting. This is in addition to a body of self-report outcomes that suggest improvements in doctor-patient communication, medication adherence, and other critical factors in condition management.

**Conclusion**

The Triple Aim is a worthwhile endeavor that, if achieved, will not only save costs across the American health care system but also improve the quality of life for millions of patients. In order to get there, we need to consider the missing link of patient engagement: helping patients to take ownership of their own health behaviors for the long term. We believe that engaging patients requires a deep understanding of what motivates behavior change, including fundamental human needs to be autonomous, competent, and related. If we keep these considerations at the forefront when designing interventions and interacting with patients, we can help advance the Triple Aim.

**Amy Bucher, PhD,** Associate Director, Behavioral Science, works as a member of the Behavioral Science and Data Analytics Group at Johnson & Johnson Health and Wellness Solutions Group, with a focus on grounding digital health coaching program content, design, and functionality with behavioral-science based approaches. Her research interests include motivational design, patient and user engagement, happiness, and social relationships and their influence on health and well-being. Dr. Bucher received her AB magna cum laude in psychology from Harvard University and her MA and PhD in organizational psychology from the University of Michigan.

**Raphaela O’Day, PhD,** Behavioral Scientist, is a member of the Science and Innovation team at Johnson & Johnson Health and Wellness Solutions Group. She has primary responsibility for developing participation and engagement strategies that are grounded in behavioral science and support sustained behavior change. She received her Bachelor of Science degree in Human Physiology, with an additional focus in Psychology from Michigan State University, her MA in School and Community Psychology, specializing in Marriage and Family Therapy, and her PhD in Educational Psychology, with a concentration in Neuroscience from Wayne State University.

**Endnotes:**

1. Block, L., et al. (2013). In the wake of the 2003 and 2011 duty hours regulations, how do internal medicine interns spend their time? *Journal of General*
1. Internal Medicine, 28(8), 1042-1047. Doi: 10.1007/s11606-013-2376-6.