A Healthy Connection: Modeling, Prioritizing and Piloting Veterans’ My HealtheVet Patient Portal Ideal Use Measures

A dissertation proposal presented to the Faculty of The Heller School for Social Policy and Management, Brandeis University, Waltham, MA

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The Veterans Administration’s award-winning My HealtheVet (MHV) patient portal offers Veterans online tools to support their healthcare coordination with clinicians and their own health self-management. One critical tool is MHV’s “Blue Button” (BB) which allows Veterans to download their patient health records (PHRs) to share with clinicians and others they trust. Another is Secure Messaging (SM) which enables Veterans’ online communication with their healthcare team. Research at the VA and other U.S. healthcare systems has shown that technology like MHV can improve patient health and quality of care, patient and clinician satisfaction, and system efficiency by engaging the “voice of the Veteran” and strengthening patient-clinician care coordination and relationship. The VA has already initiated studies to establish measures of Veteran use and preference, but to date, no U.S. health system has established national best practice measures to ensure broad, rapid adoption and best practice use of these tools.

The purpose of this study is the conceptual modeling, prioritization and piloting of the VA’s existing measures to determine Veterans’ ‘Ideal Use’ measures of Blue Button and Secure Messaging. The questions guiding this research are: 1) Which measures capture the characteristics that Veterans value in Blue Button and Secure Messaging use? Do the measures gauge the disparities or process gaps in Veteran ideal use of BB and SM, and how might they be improved? 2) Do current measures capture the potential role of the patient-physician relationship supported by BB and SM? Are these features positively associated with perceived relational coordination of care by Veterans and clinicians? What is the potential role of these features for perceived continuity of care and patient-health system relationship? 3) How will ideal use measures reflect improved Veteran use and preference behaviors (e.g. increased MHV use; recommendation to others)?

Ideal use measures would provide evidenced-based support for the U.S. Centers for Medicare and Medicaid Services’ (CMS) Stage 2 “Meaningful Use” rules for patient involvement in PHRs. As such, this study contributes to the health IT quality measurement and organizational behavior fields through conceptual model and methodological advances. The study will be presented as a monograph.

Aim 1. Build a conceptual model based, in part, on the alignment of two complementary validated models, the Technology Acceptance Model TAM (Venkatesh & Bala 2008) from information systems theory, and the Relational Coordination Model (Gittell 2002, 2008, 2011), from organizational behavior and operations literature, to provide a complete functional-relational assessment of “ideal use” of patient-facing technology.

Aim 2. Consolidate and prioritize existing measures of Veterans’ use of Blue Button and Secure Messaging using the Modified Delphi Technique. A 10-12 person expert panel of Veterans, VA Primary Care Physicians and Specialists, thought leaders from eHealth Quality Enhancement Research Initiative (QUERI) and MVH, and other eHealth experts (e.g. Harvard Vanguard, Brigham and Women’s Hospital, Kaiser Permanente, United Health, Fallon, EPIC) will engage in three rounds of consensus rating to determine the best measure candidates.

Aim 3. Pilot the best measure candidates among Veterans using a split-sample of the national MHV American Customer Satisfaction Index (ACSI) custom survey. A principal components analysis (PCA) will be performed on the first half of the survey results to explain the underlying structure of the measures set, followed by a confirmatory factor analysis (CFA) on the second half to assure that the ideal use measures (e.g. ease of use, online care quality) predict Veteran behaviors (e.g. intension to increase MHV use). Combined, these multivariate statistical techniques validate the feasibility of the ideal use measures and illustrate their structural dimensions diagrammatically.

This study will provide rigorous measures of what Veterans value in Blue Button and Secure Messaging to accelerate MHV adoption and to support quality and equity of health and healthcare.

- For Veterans: Robust measurement of Veteran value for MHV Blue Button and Secure Messaging could allow the VA to strengthen Veteran involvement and enhance the technology. Improvements could encourage positive word-of-mouth recommendation among Veterans and help to accelerate
MHV adoption. With accurate measures of patient use benefits and barriers, particularly among health disparity populations, improvements could target Veteran audiences who may benefit most.

- For clinicians: Feasibility validated ideal use measures may persuade reluctant clinicians as to the quality-of-care and time-savings value of Blue Button and Secured Messaging. Any resulting positive recommendations by clinicians to patients or to colleagues could strengthen provider adoption.
- For the Veteran-clinician partnership: Blue Button and Secure Messaging are vital tools in the VA’s delivery of high-quality, coordinated health care, potentially strengthening the Veteran-clinician relationship and patient-perceived continuity of care within the VA and with affiliated providers.
- For health care researchers: The VA can lead in establishing rigorous ideal use measures. Blue Button and Secure Messaging are sound exemplars for ideal use specification for other web portal tools and services (such as refill/view medications and request/review appointments) and other patient-facing services involving expert care (such as remote monitoring, telehealth and health-risk assessment with feedback). If adapted, Blue Button and Secure Messaging ideal use measures could be transferrable to other electronic media (e.g. mobile device and voice response applications).

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Hearing: Wednesday, May 16th, 2012 at 9:00-11:00 am at Brandeis University,
Heller School of Social Policy and Management, Conference Room 147