Nursing Implications & Findings from a Portal Activation Study

Season Majors, MSN, RN, CAHIMS & Amber W. Trickey, PhD, MS, CPH
Patricia Mook, MSN, RN, NEA-BC, CAHIMS; Kim Krakowski, MSN, RN, CAHIMS,
CENP; Catherine Fant, PhD, RN-BC; Mary Anne Theiss, PhD, RN-CNE, CMCN, JD; Mary Ann Friesen, PhD, RN, CPHQ

Presented by Mary Anne Theiss, PhD, RN-CNE, CMCN, JD Professor at Kaplan University recently purchased by Purdue University
Mary Anne Theiss, PhD, JD, MS, RN, CNE, CMCN  
*Masters School of Nursing-Education, Kaplan University recently purchased by Purdue University, Chicago, IL, NY, USA*  
Mary Ann Friesen, PhD, RN, CPHQ  
Nursing Research and Evidence Based Practice Coordinator,  
*Inova Health System, Falls Church, VA, USA*  
Amber W. Trickey, PhD, MS, CPH  
*Surgery, Inova Health System, Falls Church, VA, USA*  
Kimberly M. Krakowski, MSN, BSN, RN, CENP, CAHIMS  
*Informatics, Inova Health System, Alexandria, VA, USA*  
Patricia J. Mook, MSN, RN, NEA-BC  
Chief Nursing Informatics Officer, Principal Investigator, *Inova Health System, Falls Church, VA, USA*  
Season M. Majors, MSN, BSN, RN, OCN  
*Inova Informatics, Inova Health System, Falls Church, VA, USA*  
Catherine C. Fant, PhD, RN-BC  
*Masters School of Nursing-Informatics, Kaplan University School of Nursing recently purchased by Purdue University, Chicago, IL, USA*  
M. Kay Cresci, PhD, RN  
*Nursing, Retired, Lutherville, MD, USA*
The learner will be able to:
• Identify areas of future research that is needed in patient portals.
• Discuss possible adjustments that can be made to existing patient portals.
• Assess nursing implications of portal usage.
What is a Patient Portal?

- Secure communication among health care providers & patient.
- Means of active communication.
- Can be tethered to Electronic Health Record (EHR) or stand alone.
- Interactive web-based application.
Communication Through Patient Portal

- Patients can ask questions
- Access lab results
- Access chart entries
- Make follow up appointments
- Pay bills
- Refill medications
- Access educational materials
- Access forms

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Background of Research Done

• Healthcare systems are adding patient portals to their communication methodologies between providers and patients.

• How are the portals being used and how can we utilize technology to enhance person centered care?
Purpose of the Research

The purpose of this study was to evaluate user characteristics and activation patterns of the MyChart portal connected to an electronic health record (EHR).
Methods

Ethics
• Institutional Review Board approved IRB 15-1805

Design
• Observational retrospective study
• Patient portal (MyChart) activation by Inova Health System patients
• Encounters from July 2014 – June 2015
• Patients ≥ 18 years of age

Study Procedures
• Patients' user data obtained from the EpicCare database
• Percentage below the federal poverty level (FPL): match patient zip code to 2013 U.S. census five year estimates
• Multiple logistic regression model to determine characteristics associated with patient portal activation
• Statistical significance: p<0.05
Results: Payer Distribution

- Commercial Managed Care: 66%
- Medicare: 18%
- Medicaid: 3%
- Charity: 6%
- Self-pay: 4%
- Military: 3%
Results: Activation by Payer
Results: Activation by Age Group

- 18-19: 88% Nonactivated, 12% Activated
- 20-29: 81% Nonactivated, 19% Activated
- 30-39: 79% Nonactivated, 21% Activated
- 40-49: 79% Nonactivated, 21% Activated
- 50-59: 78% Nonactivated, 23% Activated
- 60-69: 76% Nonactivated, 24% Activated
- 70-79: 80% Nonactivated, 20% Activated
- 80-89: 86% Nonactivated, 14% Activated
- 90+: 90% Nonactivated, 11% Activated
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency N (%)</th>
<th>Activated N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>387,198 (100%)</td>
<td>80,435 (21%)</td>
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<thead>
<tr>
<th>Characteristics</th>
<th>Frequency N (%)</th>
<th>Activated N (%)</th>
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<tbody>
<tr>
<td><strong>FPL Level by Zip Code</strong></td>
<td></td>
<td></td>
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<tr>
<td>&lt; 3.5%</td>
<td>90,328 (23%)</td>
<td>21,915 (24%)</td>
</tr>
<tr>
<td>3.5 – 5.59%</td>
<td>103,948 (27%)</td>
<td>21,336 (21%)</td>
</tr>
<tr>
<td>5.6 – 8.69%</td>
<td>95,759 (25%)</td>
<td>18,586 (19%)</td>
</tr>
<tr>
<td>≥ 8.7%</td>
<td>93,669 (24%)</td>
<td>17,966 (19%)</td>
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<tr>
<th>Characteristics</th>
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<th>Activated N (%)</th>
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<tr>
<td><strong>Primary Care Provider</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Named</td>
<td>327,468 (85%)</td>
<td>76,615 (23%)</td>
</tr>
<tr>
<td>Unknown / None</td>
<td>59,730 (15%)</td>
<td>3,820 (6%)</td>
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<tr>
<th>Characteristics</th>
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<tr>
<td><strong>Employment Status</strong></td>
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<tr>
<td>Full Time</td>
<td>165,271 (43%)</td>
<td>39,956 (24%)</td>
</tr>
<tr>
<td>Retired</td>
<td>73,491 (19%)</td>
<td>15,469 (21%)</td>
</tr>
<tr>
<td>Not Employed</td>
<td>47,953 (12%)</td>
<td>7,024 (15%)</td>
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<tr>
<td>Part Time</td>
<td>16,789 (4%)</td>
<td>2,915 (17%)</td>
</tr>
<tr>
<td>Self Employed</td>
<td>12,900 (3%)</td>
<td>2,609 (20%)</td>
</tr>
<tr>
<td>Student</td>
<td>6,875 (2%)</td>
<td>1,346 (20%)</td>
</tr>
<tr>
<td>Disabled</td>
<td>5,861 (2%)</td>
<td>1,015 (17%)</td>
</tr>
<tr>
<td>Active Duty</td>
<td>461 (0.1%)</td>
<td>55 (12%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>57,597 (15%)</td>
<td>10,046 (17%)</td>
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*P value <0.0001
Conclusions of Study

- MyChart activation was highest among English speaking patients (23.4%) and lowest among Spanish speaking patients (4.1%). Activation was lower among patients living in zip codes with higher proportions of residents living below the FPL.

- Portal activation was highest among patients between the ages 60-69. Activation rates diminished with increasing age beyond 70 years. The findings of this study on portal activation indicated patients with Medicaid, charity or self pay had lower portal activation.
Implications of This Study

• The research in the use of patient portals is evolving. More research is needed to determine how to best accomplish patient activation and utilization of the portal.

• This study provided insights to the importance of examining demographics to determine what adjustments need to be made to the system.

• The low activation rate has prompted the exploration of opportunities to increase patient engagement through portal activation. It was observed that the Spanish speaking population had the lowest activation. This organization is preparing to offer a patient portal in Spanish to promote activation and engagement.
Future Research

• Examine factors that enhance activation for those who are underserved, or non-English speaking.

• Questions could be added to The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey that relate to portal utilization and satisfaction of care.

• Implement patient portal activation and education at discharge with appropriate documentation in the health care record.

• Examine diagnostic predictors and matching patterns of activation and utilization with demographics.

• Is there a higher activation rate from clinics or hospitals?

• If a portal is offered in additional languages would it increase activation and utilization?
Nursing Implications

• Can portals increase communication & decrease health care costs?
• Can portals increase communications & improve patient outcomes?
• Nurses can participate in evidenced based research to increase portal use.
• Identify barriers to use.
• Publication of successes & failures.
• Develop patient use & activation protocols.
• Educate patients on use.
Barriers to Portal Use

• Negative patients’ attitudes
• Negative provider’s attitudes
• Racial & ethnic disparity
• Lack of phone or computer
• Computer illiteracy
• Elderly have difficulties
• Educational level
• Cognitive impairment
• Multiple portals with many different passwords
Since the Study

• Inova instituted: MyChart Spanish in September 2016.
• The MyChart team is working on the MyChart Mobile App in Spanish.
• The team has implemented additional MyChart activation strategies and is pursuing additional activation options.
Affiliations & Acknowledgements

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• Inova Health System; Kaplan University recently purchased by Purdue University

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Questions?


