Primary Care Provider MyChart Patient Advice Request Message

Gender-Specific Workload at the University of Vermont Health Network

Kristen Karpowicz
Julianne Scholes
Alicia Jacobs MD
Rachel McEntee MD
Marie Sandoval MD

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Female Providers Disproportionately Bear the Workload Burden Associated with Increased MyChart Patient Advice Request Messages

Julianne Scholes¹, Kristin Karpowicz¹, Michelle Cangiano¹,², Alicia Jacobs¹,², Sean Mahoney¹,², Rachel McEntee¹,², Marie Sandovai¹,²
¹Larner College of Medicine at University of Vermont; ²University of Vermont Health Network

Introduction

- MyChart messaging provides a quick, easy, and asynchronous method of patient-provider communication o MyChart Messaging has:
  - replaced patient visits and follow-ups¹
  - improved the accessibility of primary care
  - Patients can reliably engage with their healthcare²
  - Patients and providers can communicate at their own convenience without the time-burden of an appointment²
  - Increased provider workload:
    - Time spent messaging patients has low reimbursement³
    - High message volume associated with increased physician burnout⁴
    - Providers respond to patient messages in addition to their regular appointment⁵
  - Female providers are more affected by an increased MyChart messaging workload than non-female providers
  - Uncompensated workload increases female burnout rates⁶
  - Uncompensated workload exacerbates gender-based wage gap in primary care⁷

Objective: Has the increased MyChart Messaging at UVMHN disproportionately affected female providers?

Methods

- Epic EHR signal data from:
  - 89 non-female and 178 female providers
  - 27 UVMHN-Affiliated Primary Care Practices
- Patient Advice Request Message metrics analyzed in Excel
  - Statistical significance at 0.05 level

Results

- Female providers received more patient medical advice request messages than non-female providers (p=0.005)
- Female providers spent more time in their patient advice request messages in-basket than non-female providers (p=0.006)
- Female and non-female providers had no difference in turnaround times for these messages (p=0.68)
- Staff workflow and treatment of messages does not differ between female and non-female providers

Figure 1: UVMHN experienced a 284% increase in MyChart Messages (+580,120) from 2019 and 2022.

Discussion

- Female-identifying providers receive significantly more patient medical advice question messages and have an increased message workload than their male colleagues
- Messages are treated the same by staff regardless of provider gender indicating a similar workflow across provider teams regardless of provider gender

Next Steps

- Further analysis should include providers’ patient demographics to identify any correlations between higher message load and patient panels as seen in other clinics
- Dedicated paid staff to answer patient messages could reduce providers’ workload
- Managing patient expectations around messages and implementing best-use guidelines could help alleviate the unpaid workload associated with the high message volume

References


Figures:

1. Patient Advice Request Messages received per Provider. Female providers received significantly more medical advice request messages than their non-female colleagues (p=0.005)
2. Time spent in Patient Advice Message Inbasket per day: Female providers spent significantly more time in their in-basket working on medical questions than their non-female colleagues (p=0.006)
3. Response turnaround time to patient advice message requests. There was no difference between response times for female and non-female providers (p=0.68).
4 & 5. Staff workflow for patient advice messages. There is no difference in staff management of messages and how frequently they forward directly to providers (fig. 4; p=0.92) or respond to patients (fig. 5; p=0.95).

Table 1:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Mean (SD): Female Providers</th>
<th>Mean (SD): Non-Female Providers</th>
<th>Difference</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Medical Advice Request Messages (number of messages per provider) (fig. 1)*</td>
<td>68.28 (60.85)</td>
<td>49.22 (45.48)</td>
<td>19.06</td>
<td>0.005*</td>
</tr>
<tr>
<td>Chains forwarded to provider without team response (percentage of all chains)</td>
<td>32.73 (24.70)</td>
<td>32.41 (23.21)</td>
<td>0.32</td>
<td>0.92</td>
</tr>
<tr>
<td>Chains forwarded to provider with team response (percentage of all chains)</td>
<td>27.04 (18.72)</td>
<td>26.88 (16.93)</td>
<td>0.16</td>
<td>0.95</td>
</tr>
<tr>
<td>Average length of chain (number of messages)</td>
<td>5.28 (1.43)</td>
<td>5.27 (1.58)</td>
<td>0.01</td>
<td>0.96</td>
</tr>
<tr>
<td>Turnaround time (time in days)</td>
<td>2.61 (7.24)</td>
<td>2.25 (2.69)</td>
<td>0.36</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Time in Patient Advice Message InBasket (time spent in min/day (fig. 2))

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Average</td>
<td>2.47</td>
<td>2.37</td>
<td>2.25</td>
<td>2.18</td>
<td>2.13</td>
<td>2.06</td>
<td>2.01</td>
</tr>
<tr>
<td>Non-Female Average</td>
<td>2.68</td>
<td>2.57</td>
<td>2.48</td>
<td>2.39</td>
<td>2.32</td>
<td>2.24</td>
<td>2.19</td>
</tr>
</tbody>
</table>

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Figure 6 (left): Primary care providers who received a patient medical advice request in May 2023 demographics self-identified by pronoun use.

### PRIMARY CARE PROVIDER DEMOGRAPHICS

- Non-Female, 89
- Female, 178