Addressing EHR-related Burnout at CAMH

25 January 2021
AGENDA

1. About CAMH & The I-CARE Journey
2. Practical Recommendations for Reducing EHR-Related Burnout
3. Physician Engagement Strategy
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About CAMH

Dr. Gillian Strudwick
Chief Nurse Executive (Interim) & Independent Scientist
Campbell Family Mental Health Research Institute &
Information Management Group
CAMH - Health redefined.

- Largest mental health and addictions hospital in Canada
- University of Toronto - affiliated teaching hospital
- World leader in brain science
- 3 main sites with 30+ locations
- 90 distinct services between an emergency department, inpatient, outpatient, day treatment and partial hospitalization models
I-CARE Journey

<table>
<thead>
<tr>
<th>Stage</th>
<th>Achieved:</th>
<th>Pre I-CARE</th>
<th>Cumulative Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 0</td>
<td>June 2017</td>
<td>June 2015</td>
<td>113 (n=644)</td>
</tr>
<tr>
<td>Stage 1</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Stage 2</td>
<td></td>
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<td>190</td>
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<tr>
<td>Stage 3</td>
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<td>197</td>
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<tr>
<td>Stage 4</td>
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<td>10</td>
</tr>
<tr>
<td>Stage 5</td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Stage 6</td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Stage 7</td>
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<td>2</td>
</tr>
</tbody>
</table>

Key (Difficult) Requirements:

- Paperless clinical environment (<1% documentation created on paper)
- Closed Loop Medication Administration and CPOE rates sustained above 95% and 90% respectively
- Demonstrated use of clinical data to improve quality of care and patient safety over a 1 year period
- Demonstrated use of data to achieve financial savings
- Advanced clinical decision support
- All external documentation scanned within 24h

Canada EMR Adoption Model℠
Practical Recommendations for Reducing EHR-Related Burnout

Brian Lo
Research Analyst & Doctoral Student
Information Management Group & Office of the CMIO

Dr. Gillian Strudwick
Chief Nurse Executive (Interim) & Independent Scientist
Campbell Family Mental Health Research Institute & Information Management Group
Background

Electronic health records contributing to physician burnout

Roger Collier

Optimization Sprints: Improving Clinician Satisfaction and Teamwork by Rapidly Reducing Electronic Health Record Burden

Amber Sieja MD a, Katie Markley MD b, Jonathan Pell MD a, Christine Gonzalez CSM b, Brian Redig MBA c, Patrick Kneeland MD a, Chen-Tan Lin MD a, e

Methods

Objective: Review the current initiatives and strategies aimed at combatting EHR-related burnout and achieving the quadruple aim among multiple clinician groups, and what recommendations may be derived for the Canadian context.

Search Strategy
- Articles related to burnout and EHR usage
- Indexed in Embase, Medline, PsycInfo
- Published from 2014-2019

Screening
- 286 articles identified for title/abstract screening (Inter-rater kappa = 0.95)
- 63 articles identified at full-text screening

Data Extraction
- Demographics Information
- Statistics on burnout and EHR usage
- Interventions and outcomes
- Notable points of discussion

Results: Demographics of Included Articles

50 articles included for analysis

84% of articles published between 2017 - 2019
24% of articles were editorials or commentaries
98% of articles were published in the US (n = 47), Canada (n = 2)

Only 2 articles were conducted in psychiatric settings
62% of articles (n = 34) examined EHR usage and burnout in medical doctors

Results: Measuring EHR-Related Burden and Burnout

Methodologies Employed

- Surveys (n = 22)
- Interviews (n = 2)
- Usage Logs (n = 7)

Statistics on Burnout and EHR Usage

- 25% of respondents reported symptoms of burnout
- 70% of those reporting burnout attributed it to using health information technology, such as EHRs
- Those who had symptoms of burnout often disagreed with others about the efficiency of EHR systems

Results: Potential Interventions to Identify and Reduce Burnout

- Education and Training (n = 3)
- Additional Support (n = 5)
- Interface Improvement (n = 6)
- Communication Improvement (n = 1)

Discussion

- The global adoption of EHR systems highlights the need to examine burnout and EHR usage outside of the American context.
- Only 2 articles have focused on a mental health setting, with one examining psychiatric residents and faculty.²
  - The unique documentation demands of psychiatry warrants further exploration of using EHR systems in this domain.
- Most of the literature has focused on physician usage of EHR systems, however, other healthcare professionals critical to mental health care delivery (e.g., nurses, social workers) should also be supported in EHR usage.⁴
- There is a paucity of evidence surrounding effective techniques to identify and reduce burnout; identifying which techniques are efficient and cost-effective is critical to developing a toolkit to support the increasingly advanced digital healthcare environment.⁴
Recommendations

Step 1: Measure baseline levels of burnout and identify challenges

Step 2: Select and implement appropriate interventions to mitigate burnout

Step 3: Measure impact and optimize the intervention

CAMH Physician Engagement Strategy

Dr. Tania Tajirian
Chief Medical Information Officer
Chief Medicine in Psychiatry Division
Benchmark Survey: Target population & sample

474 CAMH physicians and learners

- **208** Full-time physicians*
- **199** Part-time physicians**
- **67** Learners (53 residents, 14 fellows)

208 survey participants

- **156** Active-Primary/Active-Provisional Primary Physicians*  
  *(75% Response Rate)*
- **20** Active-Primary Secondary/Active-Secondary/Clinical Associate/Consultants/Courtesy**  
  *(10% Response Rate)*
- **32** Learners (Residents/Fellows)  
  *(47.8% Response Rate)*

Tajirián, T., Stergiopoulos, V., Strudwick, G., Sequeira, L., Sanches, M., Kemp, J., Ramamoorthi, K., Zhang, T., & Jankowicz, D.  
Benchmark Survey: Contribution of EHR to physician burnout

In total, **69.7% of physicians** and **68.8% of learners** identified EHR as contributing to their symptoms of burnout.

Of the **24.5%** of physicians and learners who were burned out, **74.5%** identified EHR as contributing to their symptoms of burnout.

**Physicians and Learners**

- Burned out: Physicians: 74.4%, Learners: 81.5%
- Not burned out: Physicians: 25.6%, Learners: 18.6%

**N = 51**

- Physicians: 45
- Residents: 6

**Physicians**

- Burned out: 26.7%
- Not burned out: 73.3%

**Learners**

- Burned out: 16.7%
- Not burned out: 83.3%

**Do you think EHR contributed to your symptoms of burnout?**

- Some of the time/Almost Never: 25.50%
- Always/April Always: 74.50%
**Benchmark Survey:** Significant contributors to physician burnout - Frustration and Satisfaction with EHR

Of those physicians and learners who were burned out

- **88.2%** agreed that EHR added to their frustration (whereas only 56.8% in the non-burned out group agreed with this sentiment)
- **64.7%** were dissatisfied with EHR (whereas only 41.0% in the non-burned out group agreed with this sentiment)

EHR adds to my daily frustration (p<0.001)

<table>
<thead>
<tr>
<th>Not Burned Out</th>
<th>Burned Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>56.8%</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

How would you rate your satisfaction with EHR? (p<0.001)

<table>
<thead>
<tr>
<th>Not Burned Out</th>
<th>Burned Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfied</td>
<td>Neutral</td>
</tr>
<tr>
<td>37.8%</td>
<td>21.2%</td>
</tr>
</tbody>
</table>

Benchmark Survey: Other significant differences between participants who were burned out vs. not burned out

Perceptions on EHR usefulness

- Of those physicians and learners who were burned out
  - 37.3% disagreed that I-CARE helps keep their patients safe (whereas only 16.1% in the non-burned out group disagreed with this sentiment)
  - 43.1% disagreed that I-CARE communications are efficient (whereas only 18.7% in the non-burned out group disagreed with this sentiment)

Communication around EHR

- Do you feel communication regarding EHR changes are efficient? (p<0.047)
  - 25.5% disagreed that I-CARE communications are efficient (whereas only 18.7% in the non-burned out group disagreed with this sentiment)

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EHR helps keep my patients safe (p<0.002)

- 39.4% Disagree
- 44.5% Neutral
- 16.1% Agree

Communication around EHR

- 81.3% Always + Almost Always
- 18.7% Some of the Time + Almost Never
- 25.5% Some of the Time + Almost Never

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## Benchmark Survey: Physicians’ Experiences with EHR

**Themes amongst those participants with**

### Low EHR Satisfaction

<table>
<thead>
<tr>
<th>Usability</th>
<th>Technical issues</th>
<th>Additional training</th>
<th>Information retrieval</th>
<th>System speed</th>
<th>Fixes</th>
<th>New users</th>
<th>Speech recognition</th>
<th>Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>“not intuitive”, “not user friendly”, “too many redundant tasks”, “too many clicks”</td>
<td>“system crashes”, “have to log out and back in often”</td>
<td>“don’t know any shortcuts”, “forwarding notes is a great function and surprisingly underused”</td>
<td>“difficult to find documents”, “info you need is buried”</td>
<td>“unresponsive”, “slow”, “clunky”, “takes away from time spent with patients”</td>
<td>“prompts for diagnosis hinders workflow”, “dialogue boxes that cannot be dismissed”</td>
<td>“still getting used to it”, “probably use not all the functionalities”</td>
<td>“use speech recognition tool exclusively instead of typing progress notes”</td>
<td>“type long consult notes in word then copy into EHR”, “enter appointments in my calendar”</td>
</tr>
</tbody>
</table>

### High EHR Satisfaction

**Themes amongst those participants with**

<table>
<thead>
<tr>
<th>Need for customization</th>
<th>Workarounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I use my own templates, not EHR templates”, “personal short cuts”</td>
<td>“type long consult notes in word then copy into EHR”, “enter appointments in my calendar”</td>
</tr>
</tbody>
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Multi-Pronged Physician Engagement Strategy

- Improve Physicians’ experience by rapid handling of EMR issues (SWAT)
- Enhance physicians engagement and leadership (Physician Think Tank)
- Leverage accessibility to system use data and metrics to measure outcomes (System Use Data Dashboards)
- Develop education and communication strategies (peer education, e-learning, physicians portal and CMIO newsletter)
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CMIO Monthly Newsletter (September 2019 onwards)

Open Rates
(Out of 500 recipients in September 2020)

Content:
- Initiatives updates
- Interviews
- EHR Tips & Tricks
- EHR changes in 3 categories (Pharmacy, labs, health records)

Performance metrics: Delivery rates, Open rates, Links clicked.
A “Virtual lounge” (one stop shop)

Content:
- Stories
- Wellness initiatives
- EHR Tips & Tricks
- In case you missed

Develop education and communication strategies (peer education, e-learning, physicians portal and CMIO newsletter)

Physician Portal (March 2020)
Allowing physicians to view their own system use metrics:

**Time in EHR**
- Total active time
- Time spent per patient including:
  - documentation
  - chart review
  - orders time
  - orders

**Time Spent in EHR After Hours**

Leverage accessibility to system use data and metrics to measure outcomes (System Use Data Dashboards)
**Membership**

CMIO (Chair)
Physicians ‘Divisional Liaisons’
Clinical Informatics Nurses
Clinical Applications Team
Health Information Management
Pharmacy Informatics
Laboratory and Diagnostics
Professional Practice Office
Enterprise Project Management Office

**Goals**
- Discuss new topics/changes
- Lead the improvement of EHR

**Benefits**
- Part of the Change Control Governance
- Representation from all divisions and stakeholders

**Physician Think Tank**
(Cross divisional lens)

Enhance physicians engagement and leadership (Physician Think Tank)
Goals

- Apply rapid changes and fix “the pebbles in your shoes”
- Fill the gaps in the physicians’ EHR knowledge

Benefits

- Multi disciplinary team
- Follows agile methodology

SWAT

Improve Physicians’ experience by rapid handling of EHR issues (SWAT)

Process

- Collect issues from divisions
- Engage team
- Submit change requests
- Categorize requests
- Develop education material
- Close the loop (newsletter, divisional meetings)
SWAT: Request Categorization

**Blue Requests**
Needs more training

**Green Requests**
Fixes will be delivered within 6 weeks of submission to change control governance

**Yellow Requests**
Request is applicable but needs time due to needed system upgrade or other requirement (On-Hold)

**Red Requests**
Change is not in scope, or not aligned with policies and regulations

We collected **133** EHR Change Requests

- **Yellow** (42%): 56 requests, 49% implemented, 51% in progress
- **Green** (15%): 20 requests, all implemented
- **Blue** (33%): 43 requests, 49% implemented, 51% in progress
- **Red** (10%): 12 requests, all in progress
SWAT: Divisional Dashboards

- Shareable interactive dashboard to monitor the status of all requests including:
  - Feedback for each request
  - Visualization by: Division, Status, Category
- Allows for real-time updates
SWAT: Lessons Learned from SWAT I

- Agile methodology
- Attending physician divisional meetings
- Engaging divisional leadership
- Multi disciplinary representation in the SWAT team
- Development of SWAT II (education focus)
- SWAT III (closing the loop) to maintain accountability

SWAT II:
- EHR education sessions resumed in September 2020
Multi-Pronged Physician Engagement Strategy: Lessons Learned

- Physicians are main stakeholders/decision makers in all initiatives of the strategy
- Multi-disciplinary team to be engaged in direct discussions with MDs
- Initiatives are connected and provide essential input to each other
Next Steps

• Continue to increase *satisfaction* through

  **Reducing inefficiencies** and **improving education**

Speech recognition technology  Peer education, videos, e-learning, super users

• **Measure impact** & continuously improve (PEPs)

• **Return to what EHR was intended to do:**
  • Provide fast access to patient information
  • Support clinical decision making
  • Support the patient journey through transitions of care
  • Improve patient safety & quality of care

*Data rich = Data driven*
Questions?

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