Urban Telemedicine IMPACT Plus

A person-centered interprofessional model of care for multiple chronic disease management

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Dr Tia Pham – South East Toronto Family Health Team
60 year old woman

History of: anxiety, depression, alcoholism, chronic COPD secondary to 30 yrs of smoking, AFib, HTN, chronic back pain, and inoperable ventral hernia with consequent opiate addiction

More recently:
- Fell down stairs secondary to inebriation—fractured humerus with malunion (stopped drinking and smoking while in hospital)
- Chronic pain
- Admitted TWH for second surgery
- Numerous pain specialists
- Numerous visits to office characterized by frustration, ongoing demands

Medications: >12 meds at any one time, 24 hour oxygen, walker
PATIENT STORY

- 3-way telemedicine video call with patient at home TIP team including Dr. Taylor (psych), Dr. Cardew (GIM), CCAC pharmacist and social worker, CCAC coordinator, Dr. Kahan (pain specialist).
- GP: “patient was excited that people were taking an interest in her.” The patient dressed for the occasion.

**Theme of discussion:** initial changes take time, no clear benefit immediately—typically 1-3 months

**Turning point:** referral to pulmonary rehab at TWH (patient goes twice a week)—no more oxygen. Referral to anxiety treatment program at TGH; has bonded to pain specialist whom she sees weekly. Meds reduced by half.

- **Significant change in attitude:** decreased visits, phone calls, and overall demands of GP.
- GP: “she now asks if I can call her when I find the time. She acknowledges my contribution to her care: “you hit the nail on the head.” I have also changed from wanting to avoid her to wanting to work with her.”

**Cycle of hopelessness and helplessness has been circumvented for both patient and GP**
A Need for Interprofessional Collaboration & Coordinated Care Planning

- The current healthcare system divides care by provider, disease, and setting
- Uncoordinated care increases risk of preventable adverse outcomes
- Growing population of aging patients with multiple chronic conditions and complicating factors
- Existing interprofessional resources can be leveraged to enable collaboration that yields better outcomes

Factors Contributing to Complex Care Needs:
- Use of 5 to 10+ medications
- Use of multiple services for care
- Over the age of 60 years
- Affected by social determinants of health
- Minimum of 5 co-morbid chronic medical conditions
- Depression and addiction very common
- Co-existent moderate to severe mental health issues
TIP: Telemedicine IMPACT Plus

- Person-centred complex care model for managing **multiple chronic diseases**
- Clinical intervention targeting complex patients at risk for avoidable hospital admission and ED visits
- **One-time, OHIP-billable interprofessional case consultation by OTN videoconferencing technology:**

**Goals:**
- ✓ Increase access by primary care to local interprofessional resources
- ✓ Make efficient use of existing healthcare resources
- ✓ Reduce avoidable use of acute care resources by enabling patient self-management
- ✓ Improve quality of care and QOL
- ✓ Introduce care coordination
TIP: Telemedicine IMPACT Plus

• Secure telemedicine video-conferencing technology to connect solo primary care physicians and their complex patients with a local, interprofessional care team for a consultation

• **A one-time TIP session yields:**
  – Clarification of what’s important to the patient and challenging to the primary care physician
  – A set of recommendations that identify current patient goals and barriers and identify local resources
  – Coordinated care plan
  – Synergistic problem-solving that addresses the interplay of medical and psychosocial conditions
  – The support of a dedicated TIP nurse for care coordination, care plan implementation, and follow-up care
Four sites: Patients randomized to usual care or IMPACT Plus clinic

Patient on Screen

Main outcome measures:
- Reduction in hospitalization and ED
- Secondary outcome measures:
  - Patient, caregiver satisfaction
  - Interprofessional team function
  - Changes in other resource utilization

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The IMPACT Plus Protocol

Coordinated care plan initiated

Patient & solo primary care physician (MRP) invitation

Team deliberation & clarification with patient/caregiver

Solo MRP narrative: introduces patient/caregiver to team

HCP assessments

Interprofessional team discussion with patient/caregiver

Patient welcome & initial interview: focus on priority conditions and goals of care
Access: Brings a Virtual ID team to the family practice

Coordination: Support of TIP RN for care coordination, integration with CCAC, specialists, hospital and community resources

Continuity: TIP RN helps actualize the plan, patient, family and HC provider formulate the plan together in real-time

Comprehensiveness: Acknowledges GP challenges and provides validation, offers the full spectrum of support to address complex care, enhances GP knowledge of local resources
Data Collected to Date

• Since implementation (October 2013):
  o 160+ patients received complete TIP intervention
  o 170+ Coordinated Care Plans developed
  o 100+ solo family physicians supported by TIP team and connected with new interprofessional resources
  o Caregivers of TIP patients received support by TIP nurse

• The following data is collected from patient/provider experience surveys administered post-clinic:
Interdisciplinary Care Team
Provider Experience Survey

Responses received Oct 2013 – March 2015

<table>
<thead>
<tr>
<th>n=227</th>
<th>Strongly agree/agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The TIP case conference was an effective model to develop a care plan for this complex patient.</td>
<td>97%</td>
</tr>
<tr>
<td>Telemedicine technology added to the team’s collaborative approach in the TIP case conference.</td>
<td>94%</td>
</tr>
<tr>
<td>I would use telemedicine technology again to facilitate a case conference.</td>
<td>96%</td>
</tr>
<tr>
<td>I am hopeful that this patient’s care will improve in the next six months as a result of the TIP case conference.</td>
<td>93%</td>
</tr>
</tbody>
</table>
## Patient/Caregiver Experience Survey

Responses received Oct 2013 – March 2015

<table>
<thead>
<tr>
<th>n=74</th>
<th>Strongly agree/agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident that my/the patient’s chronic care will be better managed as a result of the TIP case conference.</td>
<td>97%</td>
</tr>
<tr>
<td>TIP has effectively improved my/the patient’s access to new interdisciplinary resources.</td>
<td>96%</td>
</tr>
<tr>
<td>I would use telemedicine technology again to facilitate a medical consultation.</td>
<td>100%</td>
</tr>
<tr>
<td>I will help implement the recommendations given by the TIP interdisciplinary care team.</td>
<td>99%</td>
</tr>
<tr>
<td>I am satisfied with the recommendations developed during the TIP case conference.</td>
<td>97%</td>
</tr>
<tr>
<td>I am hopeful that my/my the patient’s chronic condition will improve as a result of the TIP case conference.</td>
<td>96%</td>
</tr>
<tr>
<td>I am hopeful that my/the patient's care will improve in the next 6 months as a result of the TIP case conference.</td>
<td>93%</td>
</tr>
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</table>
There was an overall decrease in patients with any encounter (ED visits and Admits), post-TIP, which was sustained over a 12 month period post-TIP.
Scaling Up: The Evolution of I.M.P.A.C.T.
Interprofessional Model of Practice for Aging and Complex Treatment

**IMPACT**
- 2 FHTs

**IMPACT Plus**
- 4 FHTs
- Bridges

**Telemedicine IMPACT Plus**
- 4 Health Links
- LHIN base funding
- 10 teams
- expansion to 2+ sites
- leveraging of FHT teams to help serve community practices
Project Partners
Next Steps for TIP

- Continue to scale TIP model across TC LHIN
Next Steps for TIP

- Finalize evaluation framework for quantitative RCT research study to begin Fall 2015: **Patient-Centered Innovations for Persons with Multi-Morbidity (PACE in MM)**
  - Recruit 240 patients over one year to randomize into IMPACT (120) or usual care (120)
  - The PACE team will be comparing primary outcomes such as ED and inpatient visits, quality measures for patient, caregiver and provider, team-based measures and cost savings between the two groups
Q & A

…and on to the next evolution of TIP-Impact at East Toronto Health Link, The CCT Cross Continuum Team - joined by Dr Richard Doan, Psychiatry
East Toronto Health Link – The Wicked Question:

What if poor social supports, mental illness, and substance usage are the main drivers for complexity?

- Patients with at least 1 inpatient hospital admission, medical and social co-morbidities & at end of life: <1%-5%
- Patients without inpatient admission but multiple ED visits, and medical & social co-morbidities: 5%-10%
- Patients at risk of frequent ED visits because of poor connection to primary care and with medical and social co-morbidities: 10%-20%
Team Members

**Frequently Sourced (core team)**

- Cota
- Neighbourhood Link
- Toronto CCAC
- Toronto Community Housing
- WoodGreen Community Services
- Psychiatrist
- Family Physician
- Providence Healthcare
- South East Toronto Family Health Team

**Added as needed by patient**

- Toronto East General Hospital
- LOFT Community Services
- Access Alliance
- East End Community Health Centre
- Toronto Paramedics
- Saint Elizabeth Healthcare
- Scarborough Academic Family Health Team
Anyone within East Toronto can Refer a Client who has 2+:

- High patient and/or caregiver burden and stress
- Cognitive impairment
- Mental illness or substance use disorder
- Poor housing condition
- 1 hospital inpatient admission and/or 10+ ED visits in the last 6 months
- Unattached to primary care or ‘poorly’ attached to primary care
- Physical impairment
- Multiple chronic medical co-morbidities
- Multiple medications
- Highly dependent in self care
- High risk of institutionalization, including Long Term Care
- Uninsured patients/clients (to be evaluated on a case by case basis)
Establishing the Cross Continuum Team (CCT) to Coordinate the Care Plan (CCP)

1. Complex Patient Identified at Point of Care
2. Care Team Developed & Team Lead Identified
3. Case Conf. Held with Patient/Caregiver
4. CCP Developed with Patient/Caregiver
5. CCP Shared with Patient/Care Team

Follow-up & Monitor for 3 Months (longer if needed)
What is different from TIP?

- Most programs in ETHeL identify the top 1-5% of complex population with medical needs being the primary point of entry
- ETHeL community partners identify patients who need better support from community, mental health, addictions support services, supportive housing, with primary care and psychiatry secondary drivers
- Development of a “one stop” approach allowing partners in CCT to address gaps in service – in evolution of IMPACT/TIP, and with the patient and family present as part of the circle of discussion
Patient Story

- 51 year old Male living in East Toronto
- Neurological Disorder resulting in memory impairment and seizures
- Mental Health Disorder – Schizophrenia
- Addictions to alcohol, cigarettes and cocaine
- Multiple visits to Toronto East General Hospital
- Walks with a cane and has a unsteady gait
- Living alone / no family involvement / no employment
- Had a “loose” connection to primary care
- Lack of trust with care providers coming into the home
Identification to East Toronto HL

Visited TEGH with a seizure and fractured hip in late 2014

Referred to TEGH Virtual Ward post discharge, coordinated care plan identified high social complexity and need for CCT

ETHeL Care Coordinator visited patient in his home for assessment and consent

Care Coordinator organized a case conference with current and new care team based on patient’s needs

Patient asked to attend in-person with family member and/or current case manager
Care Coordination

Case Conference held in late December

- Estranged Daughter
- COTA Case Worker
- Neighbourhood Link Supportive Housing
- CCAC Care Coordinator
- Family Physician (via teleconference)
- Psychiatrist
- ETHeL Care Coordinator
Patient’s Goals

- Move into subsidized housing
- Get healthy
- Stay out of hospital
Action Plan

Direct involvement of 3 core team members (CCAC, COTA Case Worker, OT from VHA), MD & community legal services team

Develop trust with care team - PSW can now come in to help with ADLs & Medication Compliance

Develop a harm reduction plan

Ensure that patient has food at home and a healthy diet (Meals on Wheels)

Attendance to Family Physician with help from wheel trans
Action Plan (cont’d…)

- Engaged community legal services to help with:
  - Advance care planning and getting his daughter to be his POA
  - Represent Mr. D at the Landlord Tenant Tribunal to prevent an eviction
  - Started writing post-dated cheques for rent to create a paper trail
- Helped build relationship with local bank branch – start using his ATM card at the bank rather than at local convenience stores to avoid fees
- Enrolled into a community day program to start a “friend-transplant”
- Replaced his current circle of friends who engaged in substance abuse
- Helped reconnect his daughter to be a part of her Dad’s life
Care Team Experience

- Patient has said that the Care Team is very helpful and he is very appreciative of the help and support and wants to get better – this makes our jobs easier

- Addictions will always be a part of his life but for the first time he has people in his life who don’t use drugs so that he can choose to live differently

- Key Success: Willingness to work as a team – no concept of “my client” but rather because he is so complex – it takes a team to care for him
Preliminary Results of the Care Coordination

- # of ED visits on the decline
- Taking medications regularly and appropriately
- Trusting care team members
- Re-engagement of family caregiver
- Getting finances and other social determinants in order
Key Successes

- Improve linkage between partner community agencies and on the ground providers through use of bi-weekly conferences to identify at risk clients
- Improve confidence in learning who actually benefits from better care coordination
- Diagnose systemic gaps in care transitions
- Physical presence of patients & family caregivers to the cross-continuum team to enhance the focus on patient and family experiences
Questions?

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Aasif Khakoo
Dr Pauline Pariser