Project Title

Improving chronic pain patients' self-efficacy in pain management and reduce emergency department visits

Project Lead and Members

Project lead: Elizabeth Tan Sein Jieh

Project members: Rachel Lee Min Qi, Dr Jane George, PEN Sew Choy Ngor, Ms Grace Li

Organisation(s) Involved

Singapore General Hospital

Healthcare Family Group(s) Involved in this Project

Medical, Nursing

Applicable Specialty or Discipline

Pain Medicine

Project Period

Start date: Not Available

Completed date: Not Available

Aims

To address the following concerns:

- Chronic pain led to mobility & transport difficulties for accessing treatment.
- More time and clearer communication in familiar language regarding their health issues.
- A contact point outside of the Emergency Department but within SingHealth to address their pain.

- Pain and impaired mobility led to fear of financial constraints and social isolation.

Background

ESTHER's with chronic pain and mobility impairment tend to have multiple healthcare visits and admissions for pain, resulting in poor satisfaction.

This is a continuation from the project "Collaborative Community Virtual Pain Clinic for mobility impaired to enhance access to care and quality of pain management for improved outcomes & reduced admissions." done in 2019.

The aim of this project is to address the following concerns of ESTHERs engaged in 2019:

A. Chronic pain led to mobility & transport difficultiesfor accessing treatment.
B. More time and clearer communicationin familiar language regarding their health issues.
C. A contact pointoutside of the Emergency Department but within SingHealth to address their pain.
D. Pain and impaired mobility led to fear of financial constraints and social isolation.

Methods

See poster appended/below

Results

See poster appended/below

Conclusion

See poster appended/below

Additional Information

This project is a continuation from the project "Collaborative Community Virtual Pain Clinic for mobility impaired to enhance access to care and quality of pain management for improved outcomes & reduced admissions" (2019).

Project Category

Care Continuum, Chronic Care

Care & Process Redesign

Value Based Care, Patient Report Outcome Measures, Patient Reported Experience Measures

Keywords

Chronic Pain Management, Health and Social Care

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Improving chronic pain patients' self-efficacy in pain management and reduce emergency department visits

Team Leaders: SSN Rachel Lee Min Qi, Dr Elizabeth Tan Sein Jieh
Team members: Dr Jane George, PEN Sew Choy Ngor, Ms Grace Li
Sponsor: Dr Diana Chan Xin Hui

1. BACKGROUND

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The aim of this project is to address the following concerns of ESTHERs engaged in 2019:

a. *Chronic pain led to **mobility & transport difficulties** for accessing treatment.*
b. *More time and **clearer communication** in familiar language regarding their health issues.*
c. *A **contact point** outside of the Emergency Department but within SingHealth to address their pain.*
d. *Pain and impaired mobility led to fear of **financial constraints and social isolation**.*

2. METHODOLOGY & PROPOSED SOLUTION

1. A nurse-led telephonic support was identified and tested to address the concerns highlighted.
2. 27 patients were identified and followed up for 6 months (refer to Figure 1 on patient demographics). The following data was collected before (on the 1st call) and after the intervention (6 months later):

   (i) Patients' pain control, (ii) Patient's adherence to medication regime, (iii) Adequacy of medication stock, (iv) Number of visits to hospitals or clinics due to pain, and (v) Patient satisfaction.

Patient Demographics

1. 81% of patients recruited were aged 70 years and above.
2. 88% of patients had 3 or more comorbidities.
3. 66.6% of patients were prescribed opioids.

3. ACTIONS TAKEN

Summary of actions taken as part of the telephonic support

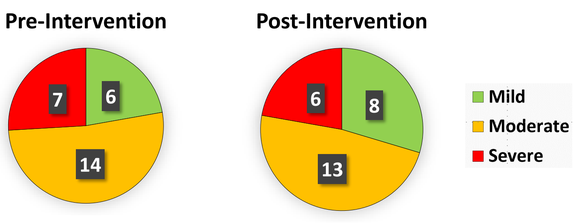
1. **Empower patients:** Educate patient on correct medication usage and safe limits of doses.
2. **Adjust medication dosage**: Nurse to identify adverse drug effects and primary pain physician to adjust medication dosages.
3. **Arrange for home delivery of medication**
4. **Reschedule appointments:** Based on patient's pain level and medication side effects
5. **Liaise with Community Nurses:** Advice on pain medication changes/titration
6. **Referral to relevant community/ hospital for additional support services**

4. OUTCOMES

PATIENT REPORTED OUTCOME MEASURES (PROM)

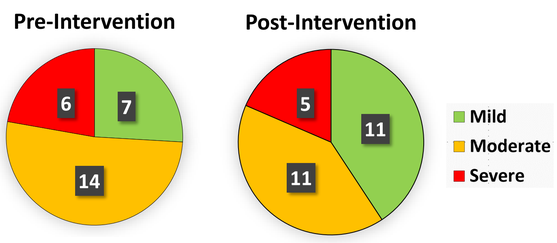
1. Brief Pain Inventory (BPI) and Pain Catastrophising Score (PCS)

a) BPI Pain Severity Score



3.7% of patients' pain severity **reduced** from severe to moderate.
7.4% of patients' pain severity **reduced** from moderate to mild.

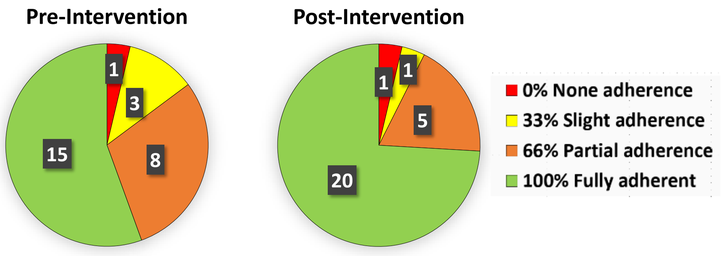
b) BPI Pain Interference Score



3.7% of patients' pain interference scores improved from severe to moderate.
14.8% of patients' scores improved from moderate to mild.

c) PCS **Improvement of 1.96** in the average PCS score difference between 1st call and 6th month call

2. *Modified Medtake Score

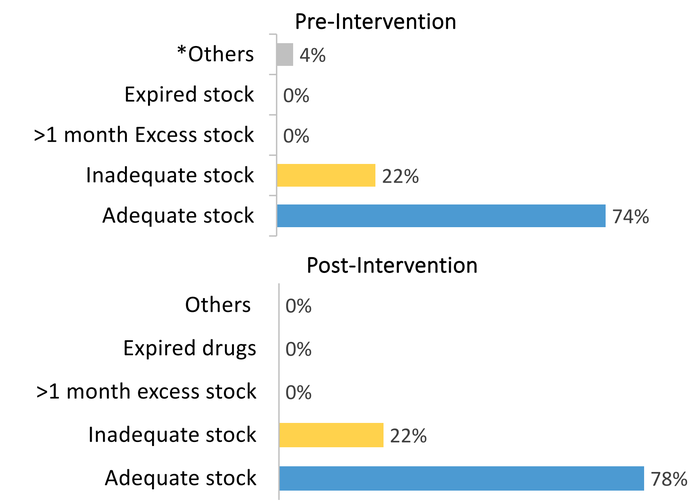


18% of patients had a **perfect Modified Medtake Score** by the 6th month call.

**Modified Medtake Score:* Medtake score simplified to 3 components for ease of calling.

PATIENT REPORTED OUTCOME MEASURES (PROM)

3. Medication Stock Taking

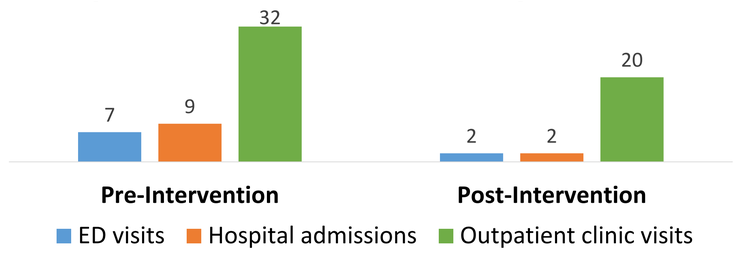


There was a **4% improvement** in patients were adequate medication stocks.

Significance: This exercise helps to allow timely medication delivery and reduce overstocking.

**Others:* Patient was unsure of how much medication she had and their doses. CMN was referred to help with packing of her medications which resolved the problem.

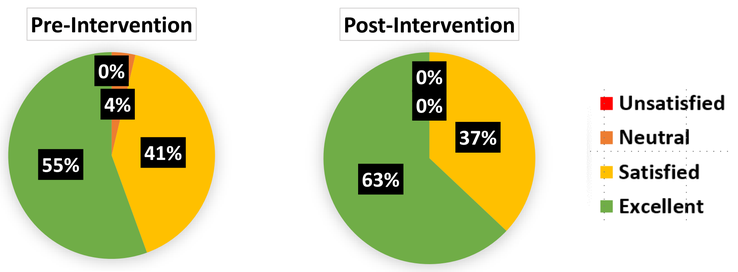
4. Number of emergency department visits, hospital admissions and non-PMC outpatient clinic visits related to pain



Overall **reduction in number** of adhoc ED visits, hospital admissions and outpatient clinic visits in the 6 months after initiation of the ESTHER project.

PATIENT REPORTED EXPERIENCE MEASURES (PREM)

1. Patient Satisfaction



By the final call, **100% patient satisfaction** achieved with increased percentage of highly satisfied patients.

2. Percentage of patients who will recommend SGH PMC to others: 100%

3. Percentage of patients who will want to continue care in SGH PMC: 100%

Patient anecdotes on experience with Pilot ESTHER Project

Patient 1: Mr B, 55yr old

- **Condition:** Long-standing back pain and leg weakness. Multiple comorbidities and often gets confused with appointments or medications. As a result, he would end up at the emergency department for pain control.
- **Actions:** Referrals made for CMN visits, occupational therapist for home modifications and acupuncture appointments.
- **Feedback:** Patient is empowered in self-management of pain medications. He is more confident in his pain management.

"Nobody cares about me, I have lost my job due to pain and feeling lonely because I don't have family. Thank you nurse for your help and lending me your listening ear."

Patient 2: Mdm C, 77yr old

- **Condition:** Lumbar spinal stenosis with uncontrolled pain. She has been taking medication wrongly because she does not understand the indications. Stopped taking medications as she experienced no immediate effect. This led to frequent visits to PMC.
- **Actions:** Informed patient that anti-neuropathic medications need time to take effect.
- **Feedback:** Patient verbalised that her pain is much better and she is confident enough to take her PRN pain medications. Ad-hoc outpatient appointment has also reduced in frequency.

"I am very thankful for your service. This is my first time receiving so much care from the hospital. Your patience and follow up calls made an impact in my life. If you did not call and educate me, I would have thought my life is hopeless living with pain. I am very happy, thank you!"

5. FUTURE PLANS

Our goal is to implement this service in our COMPASS programme with the following plans:

1. **Train care coordinator** for follow-up phone calls and care coordination. Nurses will provide supervision and management of medication issues.
2. **Identify elderly hospitalised patients** referred for uncontrolled pain – For post-discharge telephonic follow-up to reduce risk of re-admissions for pain.
3. **Training talks and collaboration with Community Nursing teams** regarding chronic pain management.
4. **Pharmacy collaboration** – Video consultations with at risk patients to improve compliance and reduce medication-related complications.