THE BROOKE STREET MEDICAL CENTRE

Summary report on the Central Highlands, Victoria, General Practice Scholarship Program 2015 project

"Persistent pain management in general practice: a multidisciplinary approach"

This project was undertaken by Brooke Street Medical Centre in 2015, gratefully supported by a grant from the Central Highlands, Victoria, General Practice Scholarship Program (administered by Health Education Australia Limited).

Brooke Street Medical Centre (BSMC) is a large, rural general practice that provides a range of multidisciplinary services. Our clinical team and services include: 15 part-time GPs, seven Registered Nurses who work in our Treatment Room, Exercise Physiologist, Physiotherapist, Psychologists, Diabetes Educator, Dietitian, Mental Health Nurse, Asthma Educator and Smoking Cessation Nurse, Aged Care nurses, Chronic Disease Care Planning and Health Assessment nurses, Wound Care nurse, Travel Clinic nurse, Women's Health & Pap Clinic nurse.

The project **aims** were:

- To develop a multidisciplinary persistent pain program (incorporating current best practices) for the management and treatment of those experiencing pain as a chronic condition.
- To develop, deliver and evaluate this multidisciplinary persistent pain program.
- To build capacity for an ongoing, sustainable multidisciplinary persistent pain program in our general practice.

The project commenced around the end of the first half of 2015 with a planning meeting.

In order to improve services to patients with chronic pain, and better resource clinical staff to manage chronic pain, we undertook the following activities to meet our set objectives:

1. ***Develop systems to identify patients with persistent pain***

Achieved.

2. ***Develop a viable multidisciplinary model of care to manage/treat persistent pain (with mentorship from the Pain Management Clinic at the Royal Melbourne Hospital).***

Brooke Street Medical Centre (BSMC) clinicians have been extremely lucky to have been mentored and trained by specialist service providers at the Royal Melbourne Hospital Pain Clinic – in particular, Director: Dr Malcolm Hogg.

BSMC clinicians visited Dr Hogg's Pain Clinic to learn more about how their multidisciplinary team assessed and treated patients. Participating BSMC team members included a GP, an exercise physiologist and psychologist. They observed some RMH pain clinic case discussions, assessments

and patient education sessions. (*See point 4 (ii) below for further contributions from Dr Hogg and other staff from the RMH Pain Clinic*).

Following the learnings from the RMH pain clinic, the BSMC team determined that their chronic pain model of care needed to include:

- Patient education / information about what chronic pain is and how this can be assisted by a multidisciplinary team.
- Services from a multidisciplinary team incorporating GP, Psychologist and either Exercise Physiologist (Ex Phys) or Physiotherapist.
- Self-management where the patient is provided with education/information to develop strategies to manage a range of factors impacting on their experience of chronic pain and quality of life.

3. Develop / collect resources for clinician use in the understanding, development and delivery of multidisciplinary persistent pain services

It was acknowledged that all clinical staff could benefit from further information/education about chronic pain and how to manage it. One strategy was to develop a resource collection for clinician information and education. In turn, clinicians could use these resources where appropriate with their patients.

Resources, for both patients and health professionals, were collected and distributed to all clinical staff. These included fact sheets and links to web based resources.

4. Improve whole of practice learning through education & information for the BSMC team about preferred multidisciplinary approaches to the treatment and management of persistent pain.

i. In conjunction with the distribution of the above mentioned resources, all BSMC staff (clinical, reception and administration staff) were informed and consulted about this pilot project.

ii. Clinical staff received training from Dr Malcolm Hogg and Olivia Twigg, Psychologist (from the RMH specialist Pain Clinic) – this training covered:
    - biological/medical factors associated with chronic pain, and
    - the vital relationship between psycho-social factors and the chronic pain experience, and
    - the role of psychology in addressing chronic pain, and
    - the rationale for managing chronic pain with the services of a multidisciplinary team.

    This training session was video-taped with Dr Hogg and Ms Twigg's approval so that staff not present on the day could view the training session at a later date. Staff were surveyed with glowing reports - the training was widely appreciated with staff reporting they'd gained new insights into chronic pain and its management.

iii. Clinical staff were later provided with another information / training session led by our BSMC Psychologist and Exercise Physiologist to explain their roles in chronic pain management and the services they provide. This training session included:
(a) why movement / exercise is important in the management of chronic pain and why it's vital to "Pace" activity and how to assist the patient to do this; and
(b) how chronic pain can be impacted by a range of beliefs and expectations and what psychology has to offer to manage this – "mindfulness" in particular was addressed in order

to assist clinicians to understand how this can support the patient to self-manage their experience of pain.

5. Develop systems for the delivery of services to those with persistent pain.

i. A referral process, with exclusion factors, was developed and distributed to staff for their use. *Exclusion factors included: patients with palliative pain, substance abuse issues, < 3 months persistent pain, inability to participate in group sessions, < 18 years, risk for harm of self or others, unstable mental status, non-BSMC patients*

ii. Clinicians were invited to identify suitable patients and then provide the patient with basic information about the pilot program and provide patients with the newly developed Multidisciplinary Pain Program Patient Information sheet. The patient could then make an informed decision about whether or not they wished to be considered for the pilot program. Those wishing to be considered were asked to sign a consent form which accompanied their referral form.

iii. A small committee of three clinicians (GP, Ex Phys & Psychologist) considered the referrals and made recommendations back to the referring clinician – where patients were deemed to be better served by another course of treatment, advice was given to the referring GP. The three clinicians who formed the committee were asked at the conclusion of the selection process to fill in a survey regarding both the referral and selection processes that we had used – this information will inform how we run future pain clinics.

iv. Ten patients were eventually included in the pain program.

v. The ten patients in the pilot program were contacted:
   - to advise of their inclusion in the program dependent on their ongoing interest – all ten accepted.
   - to remind participants of the date and time for the group psycho-education session,
   - to provide pre-evaluation surveys to be filled in before attendance at the group psycho-education session the "Human Activity Profile Pre-Questionnaire" & the "Initial Questionnaire" – Royal Melbourne Hospital Pain Clinic),

vi. Referring GPs were advised whether or not patients needed reviews of care plans; new referrals to the key clinicians comprising the chronic pain multidisciplinary team etc..

6. Develop and deliver a psycho-educational group program.

Patient understanding and knowledge about chronic pain is deemed to be a fundamental basis from which to begin the patient's multidisciplinary treatment. Following the model used by the RMH Pain Clinic (and many others) an education module was developed for patients. A representative of each of the three pain program clinical disciplines (GP, Exercise Physiologist and Psychologist) contributed to this.

The education session was delivered in a group setting to the patients accepted into the chronic pain pilot program – all ten patients participated. The session was presented over a two hour period by the three clinicians allowing time for questions and afternoon tea.

The main thrust of the session was to explain the neuro-physiology of chronic pain, the role of medicine (and medications), and how physical and psychological therapies could assist in improving quality of life and managing chronic pain. Importantly, patients were told that their experience of pain was believed (and that the presence of a psychologist does **not** indicate that their experience is not a real and lived one).

At the end of the group education session, each patient was asked to take a single page "work-sheet" and identify three things:

- What messages will you take away from this session?

- What is 1 thing you will do differently from today in relation to your pain?
- What is 1 new goal for the coming week, month, year?

This information informed individual patient treatment and goals during the pain program.

7. Develop patient resources for improved self-management capacity

A number of the Hunter New England Local Health District resources were deemed best for patient use and understanding:

- "Understanding pain"
- "Medication & chronic pain"
- "A mindbody introduction"
- "Pain, physical activity and a whole person approach"
- "Healthy living"
- "Creating connection"

- Further, the 5 minute video which quickly explains the pain program approach "Understanding Pain in less than 5 minutes, and what to do about it!" which is found at https://www.youtube.com/watch?v=C_3phB93rvI was found to be an excellent resource for patient understanding of their condition and how to manage it.

8. Develop evaluation tools/processes to assess the program's impact on (a) patients, (b) clinical staff delivering persistent pain services, (c) general clinical staff understanding and knowledge of the persistent pain program.

a) Program impact on patients was evaluated with a couple of key tools that have been used widely in other settings: (i) The Royal Melbourne Hospital Pain Clinic "Initial Patient Questionnaire" and "Follow-up Pain Questionnaire" were used before and after the three month pilot pain program; (ii) the "Human Activity Profile" questionnaire (which was constructed by A J Fix and DM Daughton and is used by organisations such as WorkSafe) was also given to patients before and at conclusion of the three month pilot period.
b) A survey was designed to gain feedback on response to training/education provided by Dr Malcolm Hogg and Olivia Twigg on clinical staff.
c) A survey was designed for clinician feedback (1 GP, 1 Ex Phys, 1 Psychologist) about the pain program referral and selection processes. They collectively filled in the survey.
d) A survey was designed to evaluate the design and delivery of the group education session - the clinicians (1 GP, 1 Ex Phys, 1 Psychologist) who designed and delivered the program collectively filled in the survey at the conclusion of the session.
e) A survey was designed to gain feedback about the impact of the pilot project on the clinicians who delivered the pain services to patients (5 GPs, 2 Psychologists, 1 Exercise Physiologist, 1 Physiotherapist & 1 Dietitian).
f) A survey was also designed to gain feedback about the impact of the pilot project on the general clinicians who were NOT directly involved in delivering the pilot pain services to patients (14 GPs, 3 AHP (incl nurses), 7 Treatment Room Nurses, 2 Aged Care Nurses).

Results

(i) BSMC pain program and structure will be refined for future programs as per feedback received in the various forms of evaluation referred to in Section 8. For example: we aim to refine our referral form for easier clinician use; we will create

new patient education/information modules to simplify and separate relevant components; we will consider the use of patient peers to contribute to the program and support participating patients.

(ii) All clinical staff agreed they had an improved understanding of chronic pain following the training and education presented by RMH Pain Clinic specialists Dr Malcolm Hogg and Olivia Twigg, Psychologist. All clinical staff agreed that the training session also helped them understand the need for a multi-disciplinary approach to chronic pain management.

(iii) **Clinicians directly involved** in providing multidisciplinary services during the course of the pilot, overwhelmingly and unanimously reported (at the conclusion of the pilot) that they benefitted from the project.

Significantly, since participating in the project, **all nine responding clinicians reported**:

- making changes to their management of chronic pain patients
  "*More aware of management strategies outside my own field & why they are important. As a result I am able to provide more comprehensive education to my patients."*
- experiencing positive change in their personal satisfaction or response to working with chronic pain patients
  "I feel better equipped to deal with chronic pain patients & confident that I am giving the same messages as other clinicians".
- working as part of a multidisciplinary team has positive benefits
  "This has been vital to its success. Having the confidence that consistent messages are being used and feeling supported by all involved has improved deliver & management of patients."
- a belief that patients had benefitted from participating in the pilot program
  "The benefit of collaborative team approach encompassing the most important & valuable aspects of pain management – psych, EP/Physio & GP. Provided with a supportive, dedicated team which helps pain patients to feel 'understood & believed'".
- they would recommend this type of multidisciplinary approach to other clinicians
  "Collaboration works. Identifies issues for individuals so can be managed better."
- case conferencing was resoundingly endorsed
  "….Felt supported, validated, inspired in my work."
- ideas for improvement were also provided and program limitations were also identified.

(iv) **General clinical staff** <u>not directly</u> involved in providing services to patients in the pilot provided a range of responses when evaluating the pilot. For example:

- from the total 11 staff who responded, 9 reported that chronic pain was either significantly or moderately relevant to their work yet only four reported that they had changed the way they manage chronic pain since the introduction of the pain pilot
- eight reported that the pain resources (distributed during the pilot) helped them better understand chronic pain
- only three respondents reported offering these resources to patients

- Only one of the 11 respondents reported experiencing a change in their personal satisfaction levels or response to working with chronic pain since the introduction of the pain project
- There were a range of levels of agreement about whether psychology and physical therapies have a significant role to play in management of chronic pain
- There were a range of levels of agreement about clinician confidence to inform/educate patients about chronic pain.
- Seven of the eleven would recommend/refer patients into future BSMC pain programs (three ticked "non applicable", one ticked "unsure")
- All except for one gave some level of agreement that they would be supported by further education about chronic pain.

(v) Patients

Ten patients participated in the program. One patient did not finish the program due to extenuating circumstances. All ten patients completed pre-program questionnaires and nine patients completed the corresponding post-program questionnaires including a brief qualitative questionnaire.

Patient evaluation was conducted via:

- Pre & Post questionnaires including:
  - The Royal Melbourne Hospital Pain Clinic's "Initial patient questionnaire" & "Follow-up patient questionnaire" which include BPI (Brief Pain Inventory) pain rating scores, DASS (Depression Anxiety and Stress Scale), PSEQ (Pain Self-Efficacy Questionnaire) and the PCS (Pain Catastrophising Scale).
  - The Human Activity Profile (HAP) - a self-report measure of energy expenditure or physical capacity.
- A brief questionnaire (delivered at the conclusion of the pilot) seeking views about the benefits of the program and how it could be improved.

Summary of patient pre and post pilot program scores

Nine patients completed post-program questionnaires with the following key results:

- **Brief Pain Inventory** – two participants showed clinically significant improvement in their worst pain scores, and two showed clinically significant improvement in their average pain scores
- **Depression Anxiety and Stress Scale** – two participants had clinically significant improvement in their Depression score, two had clinically significant improvement in their Anxiety scores, three had clinically significant improvement in the Stress score. One participant had a statistically significant worsening of their anxiety score.
- **Pain Self-Efficacy Questionnaire** – five participants showed clinically significant improvement in their Pain Self Efficacy score
- **Pain Catastrophising Scale** – four participants showed clinically significant improvement in their Pain Catastrophising score
- **Human Activity Scale** – five participants showed clinically significant improvement on their Adjusted Activity Scale, one participant had a statistically significant worsening of this score.

Qualitative feedback:
At the conclusion of the pilot, qualitative feedback was also provided by participants. The significant majority of comments were positive and/or constructive. Patient were asked the following questions:

- **"What benefits / positives, if any, have you received from the pain program?"** A few responses include:
  - *With an increased awareness that the mind plays in determining the signals received I have been able to cease my medication ….*
  - *I feel confident that I can reduce pain and get stronger by my own actions. I have made great gains in sleep, pain reduction and ability to be more 'normal'. I feel helped to have more realistic expectations of my newer 'normal' and make further advances too.*
  - *I have felt supported, listened to and understood, encouraged etc.*

- **"Do you have suggestions for how the pain program could be improved?"** A few responses include:
  - *More group work*
  - *The start was a bit bumpy with regard to knowing – beginning and end dates, how many appointments, costs involved (at least some parameters of what might be acceptable). This was sorted fairly early in program thank you.*
  - *I feel that maybe some group sessions with participants to share experiences and their ideas for pain management and strategies for psychological distress etc.*

- **"Are there any other comments you'd like to make about the pain program?"** A few responses include:
  - *An excellent initiative that will produce improved understanding of pain and the sharing of experiences between doctors, other clinicians and patients*
  - *I have always regarded the connection of pain → mood, but nave now anew appreciation of mood → pain.*
  - *During the program I have felt challenged, encouraged, pushed out of my comfort zone, stressed about going backwards, pleased about successful ventures, appreciative of skilled guidance, doubt, empowered… and much happier that I'm now going forward instead of backward. Thank you for the opportunity.*

Limitations
- No control group
- Small subject numbers
- Different practitioners possibly delivering different interventions
- Some patients had already commenced working with multi-disciplinary team members before the pain program began

Project conclusions:

(i) Eight of the nine **patient participants** who completed both pre & post questionnaires showed a clinically significant improvement in at least one area measured, and more than half showed this improvement in three or more areas measured. All nine patients also gave positive qualitative feedback regarding the program therefore all those who responded at the conclusion of the pilot can be said to have benefitted from the program.

Eight of the nine participants who completed all evaluation questionnaires experienced positive change including either:

- a reduction in stress levels, and/or
- less catastrophising about pain (through rumination, magnification or helplessness), and/or
- increased confidence in being able to do activities despite pain, and/or
- an increase in activity.

Delivering a multidisciplinary pain management program in a primary healthcare setting in the patient's community can result in positive changes for patients and is worthy of further research.

(ii) The **clinical staff directly involved** in providing the pilot pain services to patients, appear to have benefitted enormously – they **unanimously** report: changing how they manage chronic pain; improved levels in personal satisfaction or response to chronic pain work; benefitting from working as part of a multidisciplinary team; believing that the pilot program was of benefit to their patients; they would recommend the multidisciplinary approach to chronic pain management to other clinicians; case conferencing is significantly beneficial.

(iii) **General clinical staff**, <u>not involved in providing services to patients</u> in this pilot program, had a varied range of responses. All agreed that the training from Dr Malcolm Hogg, Pain Specialist & Olivia Twigg, Psychologist helped improve their understanding of chronic pain. They all also agreed this training session helped them understand the need for a multidisciplinary approach to chronic pain management. At the conclusion of the project, most (eight out of eleven) report benefitting from the chronic pain resources that were distributed as part of the project. Most agreed that psychology and physical therapies had a significant role to play in managing chronic pain (two were neutral). Confidence in providing education and information to patients about chronic pain varied with most agreeing at some level on the agreement scale. Nearly all agreed they would be supported by further education about chronic pain.

Conducting a chronic pain project incorporating education, information and resources for clinical staff can improve understanding of chronic pain and how to manage it. Clinician's directly immersed in a multidisciplinary care team delivering chronic pain services report altering their management of chronic pain and undergoing improvements in their experience of this work. The combination of participating in a multidisciplinary pain care team along

with education, information and resources may improve the clinician’s experience of chronic pain work and their ability to manage this condition.