The complexities of chronic pain: findings from a cohort of 1,500 Australians taking prescription opioids for non-cancer pain

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- POINT study team: Gabrielle Campbell (coordinator), Bianca Hoban, Kimberley Smith, Ranira Moodley, Sarah Freckleton and Rachel Urquhart-Secord

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- External collaborators: Raimondo Bruno, Wayne Hall, Nicholas Lintzeris, Milton Cohen, Fiona Shand

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Background

- Chronic non-cancer pain (CNCP) is a common complaint
  - Low back pain, neck pain and migraine were the 1st, 4th and 8th largest contributors respectively to global non-fatal health loss
- CNCP has a major impact on quality of life, mental health, health status, relationships and employment
  - in 2007 it was estimated to cost $34.3 billion in Australia
- CNCP is a complex phenomenon and may be caused by many factors, including trauma
  - May be caused by many factors, which might explain varied treatment responses
  - Physical and psychological factors also moderate the experience of pain
  - Relationships, occupational setting and culture also affect the experience and expression of pain
Background

• There have been considerable increases in prescribing of opioids for pain
  • In Australia this has particularly involved increased oxycodone (Endone, Targin and OxyContin) use

• Concern about harms related to pharmaceutical opioids
  • Most overdoses in Australia now involve pharmaceutical opioids (Roxburgh, in preparation)
  • Will it lead to greater problems with opioid dependence?
  • Will there be considerable diversion of these medications?
  • And most importantly, is long-term use of opioids for chronic pain even effective?
Outline

• Give a brief overview of the overall POINT study aims and method;
• Describe the socio-demographic, physical and mental health profile of the cohort at baseline;
• Report on pharmaceutical opioid use, non-adherence, and opioid use disorders in the cohort;
• Report on the use of cannabis by POINT participants to control pain.
OVERALL METHODOLOGY
Overall study aims

1. To examine patterns of opioid use in a cohort of people prescribed opioids for chronic non-cancer pain (CNCP).
2. To examine the demographic and clinical predictors of adverse events including opioid dependence, medication non-adherence and diversion, other drug use, and overdose.
3. To identify factors which predict poor pain relief and other clinical outcomes.

Outcomes

• The Four “A’s” of Pain Treatment Outcomes
  • Analgesia
  • Activities of daily living (psychosocial functioning)
  • Adverse effects (side effects)
  • Aberrant drug taking (non-adherence, dependence)

• Predictors of outcomes
  • Mental health
  • Drug and alcohol use history (including parental substance use)
  • Child sexual abuse
  • Other medications
  • Other illnesses and disabilities

Overall design

Sample: people living with chronic non-cancer pain, prescribed opioids >=6 weeks

Recruitment across community pharmacies in Australia, with Pharmacy Guild support

Contacted 93% (n=5,332) of all community pharmacies in Australia via fax and phone

  33% agreed to involvement in recruitment

• Four assessment waves:
  – Baseline complete – n = 1,514
  – T2 follow up (3 months) complete – 80% follow-up
  – T3 follow up (12 months) underway
  – T4 follow up (24 months) underway

• Participants offered a small reimbursement for each assessment
• Permission to obtain medical records from Medicare for access to Medicare claim history and prescription history

Proportion of participants from each jurisdiction (vs. total population)

- 8% (11%)
- 1% (1%)
- 33% (20%)
- 13% (7%)
- 22% (34%)
- 20% (25%)
- 4% (2%)

CHARACTERISTICS OF THE POINT COHORT
# Demographics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N=1514</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Median age (IQR) (range)</td>
<td></td>
<td>58 (48-67) (19-93)</td>
</tr>
<tr>
<td>Male (%)</td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Born in Australia (%)</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Aboriginal and/or Torres trait Islander (%)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Highest level of education (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed high school</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>Completed tertiary</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Married/de-facto (%)</td>
<td></td>
<td>54</td>
</tr>
<tr>
<td>Employment status (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Unemployed</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>Retired</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Self-reported change in employment due to pain (%)</td>
<td></td>
<td>64</td>
</tr>
</tbody>
</table>

# Pain and treatment experience

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total time experiencing pain (Median)</td>
<td>10 years</td>
</tr>
<tr>
<td>Time to first opioid prescription after onset of pain (Median)</td>
<td>12 months</td>
</tr>
<tr>
<td>On some type of opioid continuously (Median)</td>
<td>4 years</td>
</tr>
<tr>
<td>More than one pain condition (%)</td>
<td>85%</td>
</tr>
<tr>
<td>Number of pain conditions in the previous year (Median)</td>
<td>3</td>
</tr>
<tr>
<td>Back or neck problem most common pain condition</td>
<td>76%</td>
</tr>
<tr>
<td>Other chronic physical health problems (Median)</td>
<td>1</td>
</tr>
</tbody>
</table>

Childhood maltreatment

Proportion (%)

- Emotional abuse
- Sexual abuse
- Physical abuse
- Physical neglect
- Witness of physical violence

Past 12-month substance use

- Alcohol: 60%
- Tobacco: 20%
- Cannabis: 10%
- Methamphetamine: 5%
- Heroin: 0%

Age-related differences

• On almost every measure, younger participants had worse functioning:
  – Higher levels of mental health problems, substance use
  – Worse pain, functioning and coping
  – Poorer adherence

• Some details of this in the poster sessions

PHARMACEUTICAL OPIOID USE
Prescription opioids

- Median oral morphine equivalent (OME) mg per day – 75mg
- 9% taking over 200 OME per day
- Taking opioids for a median of 4 years (range 1-12 years)
Past month other prescription drugs

The use of paracetamol above recommended maximum daily doses by people with chronic non-cancer pain.
NON-ADHERENCE AND PROBLEMATIC USE OF OPIOIDS
Diversion vs. non-adherence

Selling
Trading
Sharing/giving away

Removing all or part of a supervised dose
Splitting doses
Stockpiling doses
Taking more or less than prescribed
Injection, snorting, dissolving, crushing, chewing

“diversion” to another person

“non-adherence” by a client
Non-adherence

• Diversion or selling of opioids extremely uncommon in this group (4% ever, usually once, to a family member in pain)

• Indicators of non-adherence, past 3 months:
  • 1% seeing a different doctor to obtain more opioids
  • 11% ran out of opioids early and required an early renewal
  • 2% used someone else’s opioids
  • 1% taken via another route (e.g. injecting)
  • 5% altered dose in another way (e.g. cutting in half)

Belcher et al. (2014). Diversion of prescribed opioids by people living with chronic pain: Results from an Australian community sample. DAR, 33, 27-32.
Opioid dependence in the POINT cohort

• One in 12 (8.5%) met lifetime ICD-10 criteria for pharmaceutical opioid dependence
• One in 20 (5%) were dependent in the previous year

• Average age of onset 45 years (SD=19.7)
• Only 12% had ever received treatment for problems related to their opioid use
Prescribed Opioids Difficulties Scale (PODS)

Scale that assesses:
- Concerns about controlling opioid use
- Psychosocial problems related to opioid use

Those who scored intermediate or higher on this scale were also more likely to be:
- Younger
- Have current mental health problems
- Currently using oxycodone
- Also using schedule 4 opioids
Indicators of problems with pharmaceutical opioids by daily dose (in oral morphine equivalent (OME) mg)

- % lifetime ICD-10 pharmaceutical opioid dependence
- % lifetime ICD-10 harmful pharmaceutical opioid use
- % at least some non-adherence, past 3 months
- % intermediate-high (≥8) score on prescribed opioids difficulty scale
SUMMARY AND DISCUSSION
Summary

• Preliminary findings, but building a picture of the complex issues faced by people living with chronic pain in Australia
  • Fairly confident we have a good representation
  • A wide variety of pain conditions, indicating the varied profile
• Complex physical and mental health issues; high rates of multiple medications
  • Younger people seemed to have higher levels of adversity
• Aberrant behaviours were reported by a minority
  • A substantial minority do report problems related to their use
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