SUPPORT (South Gloucestershire Pain Review Pilot) Study: a mixed methods evaluation

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Background

- **~1 in 7 adults** in the United Kingdom have **chronic non-cancer pain** (CNCP)

- Increasing use of **opioids** for CNCP in **primary care** despite a lack of evidence for the long-term safety and effectiveness of these drugs

- Long-term use of prescription opioids in CNCP associated with:
  - Opioid **dependence** and **addiction**
  - Increased **mortality**

- Scale of the problem of dependence is **unclear**

- People with prescription opioid dependence are **less likely** to access **traditional specialist substance misuse treatment services**

- National guidance recommends that commissioners provide **separate addiction services** to treat prescription opioid dependence
South Gloucestershire Pain Review Pilot

Aim
- Investigate the feasibility of a service in primary care for patients with CNCP treated with long-term opioids

Inclusion criteria
- Adult, primary care patients
- Long-term opioid analgesic use for CNCP
  - Taking opioids for >3 months
  - ≥ 3 opioid painkiller prescriptions in 3-month period

Exclusion criteria
- Illicit drug use
- End of life
Pilot service

- Help patients **understand their relationship with opioids** and support alternative **non-drug-based pain management** strategies

- Delivered in **2 GP practices in South Gloucestershire**

- **Individually tailored**, multi-component service

- Delivered by project workers on a **one-to-one basis**

- Approach informed by:
  - **Shared care model**
  - Patient centred counselling
  - Cognitive Behavioural Therapy
  - Social prescribing

- **Partnership working** between 2 project workers, GPs, patients and consultants in pain management and addiction psychiatry
Enrolment in service

- Approached: n=59
  - Contact successful: n=42
    - Contact unsuccessful: n=17
    - Did not attend info session: n=1
  - Attended info session: n=41
    - Did not wish to enrol: n=7:
      - Happy with dose: 3
      - Happy to reduce with GP: 1
      - "Not for me": 1
      - Client died: 1
      - No reason given: 1
  - Enrolled: n=34
Aim

To evaluate the South Gloucestershire Pain Review Pilot using qualitative and quantitative methods.
Methods: quantitative data

• Demographics

• Baseline to follow-up intervention changes:
  • Prescribed opioid dose - average daily morphine equivalent
  • Current Opioid Misuse Measure (COMM) – diagnosis of opioid use disorder
  • Brief Pain Inventory (BPI) - pain intensity and the interference of pain
  • Warwick-Edinburgh mental well-being scale - estimate mental well-being
  • Treatment Outcomes Profile (TOP) tool - physical and psychological health, and overall quality of life (QoL)
Methods: qualitative data

- 18 service-user semi-structured interviews
- 7 service-provider semi-structured interviews
  - Project workers (n=2),
  - Project workers’ manager (n=1)
  - GPs in participating GP practices (n=4)
- Interviews explored:
  - Experiences of the service (acceptability, what worked well and what could be improved)
Methods: analysis

- Means and standard deviations, medians and inter-quartile ranges or counts and percentages
- Wilcoxon signed-rank test compared baseline and follow-up average prescribed opioid dose
- Thematic analysis used following a data-driven inductive approach
Baseline service user characteristics (1)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female gender</td>
<td>22/34</td>
<td>64.7%</td>
</tr>
<tr>
<td>Age (years; mean, SD)</td>
<td>51</td>
<td>10</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>31/31</td>
<td>100.0%</td>
</tr>
<tr>
<td>Other</td>
<td>0/31</td>
<td>0.0%</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>6/31</td>
<td>19.4%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>23/31</td>
<td>74.2%</td>
</tr>
<tr>
<td>Retired</td>
<td>2/31</td>
<td>6.5%</td>
</tr>
<tr>
<td>Relationship status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>6/31</td>
<td>19.4%</td>
</tr>
<tr>
<td>Married</td>
<td>19/31</td>
<td>61.3%</td>
</tr>
<tr>
<td>Separated</td>
<td>3/31</td>
<td>9.7%</td>
</tr>
<tr>
<td>Divorced</td>
<td>1/31</td>
<td>3.2%</td>
</tr>
<tr>
<td>Other</td>
<td>2/31</td>
<td>6.5%</td>
</tr>
<tr>
<td>Disability</td>
<td>20/27</td>
<td>74.1%</td>
</tr>
<tr>
<td>Previous pain clinic use</td>
<td>22/31</td>
<td>71.0%</td>
</tr>
</tbody>
</table>
Baseline service user characteristics (2)

<table>
<thead>
<tr>
<th>Reported reason for original opioid prescription</th>
<th>Enrolled patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back pain</td>
<td>9/32 28.1%</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>4/32 12.5%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>5/32 15.6%</td>
</tr>
<tr>
<td>Spinal or disc degeneration/deformities</td>
<td>5/23 15.6%</td>
</tr>
<tr>
<td>Other</td>
<td>9/32 28.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opioid type</th>
<th>Enrolled patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>9/34 26.5%</td>
</tr>
<tr>
<td>Tramadol</td>
<td>10/34 29.4%</td>
</tr>
<tr>
<td>Oxycodone family</td>
<td>7/34 20.6%</td>
</tr>
<tr>
<td>Codeine</td>
<td>17/34 50.0%</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>5/34 14.7%</td>
</tr>
<tr>
<td>Methadone</td>
<td>1/34 2.9%</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>3/34 8.8%</td>
</tr>
<tr>
<td>Nurofen plus</td>
<td>1/34 2.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration of use</th>
<th>Enrolled patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 years</td>
<td>2/29 6.9%</td>
</tr>
<tr>
<td>3-4 years</td>
<td>3/29 10.3%</td>
</tr>
<tr>
<td>5-9 years</td>
<td>9/29 31.0%</td>
</tr>
<tr>
<td>10-14 years</td>
<td>6/29 20.7%</td>
</tr>
<tr>
<td>15+ years</td>
<td>9/29 31.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motivation for use</th>
<th>Enrolled patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>32/32 100.0%</td>
</tr>
<tr>
<td>Coping with feelings</td>
<td>4/32 12.5%</td>
</tr>
<tr>
<td>Addiction/dependence</td>
<td>3/32 9.4%</td>
</tr>
<tr>
<td>Sleep</td>
<td>1/32 3.1%</td>
</tr>
<tr>
<td>Withdrawal allowance</td>
<td>1/32 3.1%</td>
</tr>
</tbody>
</table>
Results: Enrolment

- GP referrals into service more efficient and effective than using the opioid risk assessment tool (ORAT)
- Recruitment acceptable to service users and providers

My only concern was when they did send the letter through, it said it was called BAT **battling against tranquilisers** and I wasn’t aware that’s what the group was. That did sort of **really upset me** because I think battling against tranquilisers is someone who’s using them as an addictive thing and I wasn’t using them **because I was addicted**. I was using them to combat pain so I could continue a semi normal life.

Service user
<table>
<thead>
<tr>
<th>Enrolment</th>
<th>Intervention content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and enrol eligible patients from GP practice</td>
<td>Assessment of service user needs</td>
</tr>
</tbody>
</table>

*We kind of poke around kind of paying attention to areas where people feel like they’re *not getting kind of enough* support or whatever and try and *build up* a picture that we can *present back to the person*. Project worker 1, Interview 13*
Results: intervention content (2)

**Enrolment**

Identify and enrol eligible patients from GP practice

**Intervention content**

Assessment of service user needs

Pain management plan co-created with service users
Enrolment

- Identify and enrol eligible patients from GP practice

Intervention content

- Assessment of service user needs
- Pain management plan co-created with service users

Within session components:
- Goal setting
- Education
- Counselling
- Medication review
- Pain management strategies

Referral to community-based services:
- Physiotherapy
- Relaxation and mindfulness group
Results – within service components
Results – Community based services
Results – positive experiences

- Tailored to individual needs (especially open-ended length)
  ((Project worker 1))’s been trying to sort of tailor his approach and his advice, etc to my needs rather than trying to push me into a box. Service user, Interview 22

- Time to discuss pain management
  It was one on one as well and it wasn’t rushed. If you had something to say that he would just sit there or advise or listen. Service user, Interview 21

- Relationship and communication with project worker
  I think the strength of the service is probably having the right person doing it actually. I think someone who you know is passionate about what they’re doing, and able to engage the patient and make them believe in it is really important. GP, Interview 20

- Alternative to the traditional medical model of managing pain
  I think it’s starting from psychological view point and trying to engage them, rather than completely medicalising their pain. GP, Interview 20
Results – negative experiences

- Delays accessing community based services

  *I think it is important if you’re reducing that you are, I mean not to get special treatment, but you are able to have access to a doctor, even if it’s just a phone call to say, you know, can you help me.*  
  Service user interview 9

- Insufficient GP support and communication for patient and project workers

  *In the early days I did find it quite difficult because when you’re talking about your pain and your lifestyle, it’s just highlighting how bad you feel.*  
  Service user, Interview 2

- Negative psychological effects

- Slow pace of progress

  *It would be nice if it was a little bit quicker but he has to understand what my problems are before he can really plan to do anything about them so, it is fine.*  
  Interview 4
Intervention

Enrolment
- Identify and enrol eligible patients from GP practice

Intervention content
- Assessment of service user needs
- Pain management plan co-created with service users

Outcomes
- Within session components:
  - Goal setting
  - Education
  - Counselling
  - Medication review
  - Pain management strategies
- Referral to community-based services:
  - Physiotherapy
  - Relaxation and mindfulness group
- Awareness and understanding of pain
- Opioid use, pain levels and management
- Well-being, mental health and quality of life
- Healthcare use and delivery

Awareness and understanding of pain
- Opioid use, pain levels and management
- Well-being, mental health and quality of life
- Healthcare use and delivery
Results – awareness and understanding of pain

Greater understanding of pain, what opioids do and their effectiveness for chronic pain treatment

There was quite a bit of information that I didn’t realise which was quite good (...) mainly about how the pain sort of works, how it sort of – the different sort of systems within your body, how it reacts on them... Service user, Interview 8

Tracking patterns in pain and opioid use → recognise when opioids were not taken in response to pain levels
Results – wellbeing and quality of life

Higher = better

I mean it's actually more painful if I'm being quite honest with the morphine reduction and it's quite hard emotionally as well, you know, because you've had that sort of emotional crutch for twenty something years. Service user, Interview 9

<table>
<thead>
<tr>
<th>Change of 3–8 points</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved by 3 points</td>
<td>64%</td>
</tr>
<tr>
<td>Improved by 8 points</td>
<td>41%</td>
</tr>
</tbody>
</table>

BPI = Brief Pain Inventory, TOP = Treatment Outcomes Profile
Results – wellbeing and quality of life

- Score ≥9 = opioid misuse
- Baseline = 24/28 (86%) service users ‘misusing’
- Follow-up = 15/22 (68%) at follow-up

COMM = Current Opioid Misuse Measure, BPI = Brief Pain Inventory
Results – Prescribed opioid dose

- Baseline = **90mg** (IQR 60 to 240)
- Follow-up = **72mg** (IQR 30 to 160)  
  (p<0.001)

- **15** = reduced dose (3 reduced to 0)
- **19** = no dose change
- **0** = increased dose

Lower=better
Results: Healthcare use and delivery

• Reductions in GP consultations reported by GPs and service users
• Pilot did not save GPs’ time
• GPs described greater consideration of prescribing appropriateness
Implications / recommendations

• Important to keep the service individually tailored

• Project worker and relationship with service user = **key ingredient of service**
  • Project workers concerned about running the service with high numbers of service users and short appointment times

• GPs require funding to support future involvement
  • Clinical supervision
  • GP identification and referral of eligible patients
  • Patient review meetings
Conclusions

- Pilot service model has shown promising results
  - Acceptable to service-users
  - Improvements on most health, well-being and QoL outcome scales

- Similar service models may help address and prevent misuse of opioid analgesics for the treatment of CNCP

- Interventions are also required to support changes in GP prescribing practices

- A randomised controlled trial is needed to test the effects of this type of care-pathway on opioid dependency and pain management
The research is supported by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care West (CLAHRC West) at University Hospitals Bristol NHS Foundation Trust and NIHR Health Protection Research Unit in Evaluation of Interventions. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

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