Pain in Ireland

Prevalence, Impact and Cost of Chronic Pain.

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28 pain clinics but few properly resourced
Only 8 met IASP criteria for “multidisciplinary pain clinic”, only 3 offer intensive multidisciplinary pain programmes
Average wait for specialist treatment 2 years
€350 million annual disability payments for back pain
Inadequate focus in medical (4 hrs minimum) and health education
Research funding – one project from 109. No national data on prevalence or cost.

(Fullen et al 2004, “The need for a national strategy for chronic pain management in Ireland”, Ir J Med Sc)
PRIME Study 2008-2010

Background


• No community epidemiological data on CP in Ireland using standardised measures.


• (Raftery et al, PRIME Study. Pain 2011, 152, 1096-1103).
Aims of the PRIME study

• Longitudinal, epidemiological study
• Chronic non-cancer pain.
• **Prevalence** of chronic pain.
• **Incidence** of pain in a 12-month period.
• **Persistence** of pain problems over 12-months.
• **Impact** - physical, psychological, social.
• **Cost** - health service utilisation, social welfare support, and lost productivity
Method.

- IASP definition of chronic pain “Have you been troubled by pain that has lasted more than 3 months?” Non-cancer pain.
- Postal questionnaire 3,300 participants aged 18+
- 33 GP practices. Urban/rural.
- 1204 responses.
- Presence of CP, impact, treatment.
# Measures used

<table>
<thead>
<tr>
<th>Measure</th>
<th>PAIN</th>
<th>NO PAIN</th>
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<tbody>
<tr>
<td>Demographic questionnaire</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Quality of life (SF-12)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Depressive symptoms (Hospital Anxiety and Depression Scale)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Functional impact, pain severity &amp; disability (Chronic Pain Grade Questionnaire, Von Korff, 1990)</td>
<td>X</td>
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<tr>
<td>Illness perceptions (IPQ – 8)</td>
<td>X</td>
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<tr>
<td>Financial cost (Telephone interview based on the Client Services Receipt Inventory) N = 140</td>
<td>X</td>
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Prevalence and Duration of Pain

• 35% had CP based on IASP definition.
• Average duration 7.6 years (range 3 months - 50 years).
• 23.6% pain for < 12 months.
• 26.4% pain from 1-5 years.
• 15.7% pain from 5-10 years.
• 21.5% pain more than 10 years.
## Age and Gender Profile

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>246</td>
<td>57.5</td>
</tr>
<tr>
<td>Men</td>
<td>182</td>
<td>42.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>N (% of Total N)</th>
<th>% of Age Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 34</td>
<td>91 (21.3%)</td>
<td>28%</td>
</tr>
<tr>
<td>35 – 44</td>
<td>81 (18.9%)</td>
<td>30.4%</td>
</tr>
<tr>
<td>45 – 54</td>
<td>88 (20.6%)</td>
<td>36%</td>
</tr>
<tr>
<td>55 – 64</td>
<td>66 (15.4%)</td>
<td>39.3%</td>
</tr>
<tr>
<td>65 – 74</td>
<td>61 (14.3%)</td>
<td>50.4%</td>
</tr>
<tr>
<td>75 +</td>
<td>39 (9.1%)</td>
<td>50%</td>
</tr>
</tbody>
</table>
Pain Severity

- 37.1% Grade 1 – Low Intensity, Low Interference
- 37.6% Grade 2 – High Intensity, Low Interference
- 14.6% Grade 3 – High Interference, Moderately Limiting
- 10.7% Grade 4 – High Interference, Severely Limiting.

- Persons (65+) twice as likely to report Grade 4 pain than those 18-34.
Site of pain

1. Low back
2. Knee
3. Neck
4. Shoulder
5. Hip

80% more than one site of pain.
Reported cause of pain

- Unknown: 43%
- Car accident: 8.9%
- Following illness: 8.6%
- Injury: 8.6%
- Accident at home: 5.6%
- Accident at work: 5.6%
- Following Pregnancy: 3%
- Other: 16.7%
Work ability is affected by pain

• Vast majority of the chronic pain sample was working fulltime – **but 12% unable to work or working part time due to pain.**

• Those with chronic pain were over **3 times more likely to be unemployed.**

• **Semi skilled workers** were more than 3 times more likely than professionals to report chronic pain.
Depression and Pain.

Proportion of people with clinically significant HADS Depression score (>10)

<table>
<thead>
<tr>
<th></th>
<th>Pain Group</th>
<th>No-Pain group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>13%</td>
<td>3%</td>
</tr>
<tr>
<td>Female</td>
<td>15%</td>
<td>3.7%</td>
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</tbody>
</table>

Clinically significant depression nearly 5 times more common in chronic pain.
Health-related quality of life (SF-12)

<table>
<thead>
<tr>
<th></th>
<th>No Chronic Pain</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical QoL Score</td>
<td>54.06</td>
<td>49.83</td>
<td>42.96</td>
<td>35.23</td>
<td>27.99</td>
</tr>
<tr>
<td>Mental QoL Score</td>
<td>48.65</td>
<td>48.47</td>
<td>46.02</td>
<td>39.29</td>
<td>33.39</td>
</tr>
</tbody>
</table>

Higher pain was associated with lower physical and emotional quality of life
One year follow-up.

- **Recontacted** n=1204, response rate 59% (n = 717).
- **Persistence: 59.9%** of those with CP at baseline had chronic pain at follow-up.
- **New pain: 12.7%** incidence of new pain from baseline to follow-up.
- Majority of those who no longer had chronic pain at follow-up were in the lower grades of pain at baseline.
- **High level of persistence among those with higher pain intensity and disability at baseline.**
Cost of Pain.

- Cost analysis from sub-sample of PRIME chronic pain respondents (n=140).
- Costs among most severely affected pain population i.e. those attending a Regional Pain Clinic, (n=100), average pain duration 9 years.
- Client Services Receipt Inventory plus Hospital Inpatient database (HIPE) and Pharmaceutical Benefits Scheme (PBS) – calculated for 1 year.
Costs Measured

• Direct costs:
  – inpatient stays
  – outpatient specialist appointments
  – paramedical appointments
  – cost of treatments (physiotherapy, occupational therapy, psychology, medication and medical intervention)
  – GP visits
  – adaptive equipment
  – wage replacement.
Costs Measured

• Indirect costs:
  – lost productivity
  – temporary work absences
  – informal care
  – community care.
Community Sample

- Average cost per chronic pain patient €5,665 per year
- Costs increased according to severity of pain.
- Total cost estimated at €4.76 billion per year, 2.55% of Irish GDP in 2008.
Intensive Users

- Intensive users – average 4 inpatient admissions per year, 8 outpatient visits per year, 9 GP visits per year.

- Small proportion of patients account for most of costs - **5% most expensive patients accounted for 26.4% of costs** - average cost per patient €29,936.
Total Cost of Chronic Pain for 100 high intensity service users is circa €1m per year

- Direct Costs 653,541
- Indirect Costs 302,956
- TOTAL 956,497
- Average Cost per Patient per year 9,564
- Extrapolated for average 25 years = €239,000 per patient
Conclusions

• Chronic pain is a significant health problem (up to 1 in 3)
• Most severe level of pain and disability reported by 10% with CP
• Highly persistent over 1 year (60%)
• Economic costs substantial (circa €6,000 per year per person in community sample, over €9,500 per year for Pain Clinic sample, almost €30,000 per year for most expensive 5% of patients)
• Total economic cost €4.76bn per year
• Inpatient admissions the highest economic cost – alternatives should be developed e.g. multidisciplinary outpatient pain management programmes
• Severe shortage of specialist pain services generally, and specifically there is a shortage of multidisciplinary pain management programmes
Changes underway?

- Some positive signs:
  - Active advocacy movement (Chronic Pain Ireland)
  - Charter of Rights
  - Active professional group (Irish Pain Society)
  - Faculty of Pain Medicine, College of Anaesthetists training programme
  - New Centre for Pain Research
– Better research funding e.g. basic science, epidemiology, professional development, intervention studies

– Service development – e.g. physiotherapy advanced practitioners for musculoskeletal triage
Where to next?

- National Pain Strategy (?European Pain Strategy, quality indicators)
  - Funnel resources into service development e.g. MDTs, spinal stimulators – better linkages Govt departments
  - Professional education and specialist recognition
  - Early access to specialist care
  - Case management and vocational rehabilitation
  - Neglected groups e.g. cognitively impaired (ID, dementia, ABI); refugees, travellers.

- Pain research funding – priority for Irish and EU FP8
Acknowledgements

• PRIME Study
  – Miriam Raftery BA, MPychSc – Researcher
  – Prof. Andrew Murphy, Dept. of General Practice, NUI Galway
  – Prof. Charles Normand & Padhraic Ryan – Health Economics – Trinity College Dublin
  – Dr. Davida de la Harpe – Health Service Executive
  – Funded by Health Research Board – Health Partnership Grant; Health Service Executive Galway; Health Service Executive – Population Intelligence Unit

• Cost Studies
  – Edel Smith BA – Researcher
  – Dr. Brenda Gannon – Dept of Economics & Irish Centre for Social Gerontology, NUI Galway
  – Dr. David Finn, Centre for Pain Research – NUI, Galway
  – Dr. David O’Gorman – Pain Medicine – University Hospital Galway
  – Funded in part by Health Research Board – Summer Scholarship Grant