Painkiller addiction and pseudoaddiction in SCD (presentation 2 in a series of 3)

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What this presentation is about

- Assessment of painkiller addiction/dependence generally
- The concept of pseudoaddiction
- Rates of painkiller addiction/dependence in other painful conditions
- A more accurate method to assess addiction and pseudoaddiction among people with painful conditions
- Findings from a study of SCD
Assessment of painkiller addiction

- Prescribed rather than illicit drugs
- Benefits rather than harm due to drug use
- Some symptoms of dependence to be expected
Diagnosing substance dependence in the absence of pain

Three or more of these symptoms:

1. Tolerance (needing larger doses)
2. Withdrawal symptoms
3. Taking more than intended
4. Persistent desire or unsuccessful attempts to give up or cut down
5. Excessive time spent obtaining, using or recovering from drug use
6. Social, occupation or recreation activities given up or reduced because of drug use
7. Continued use despite knowledge of problems caused by drug use

(DSM-IV, American Psychiatric Association, 2000)
Diagnosing substance abuse in the absence of pain

One or more of these symptoms:

1. Recurrent substance use resulting in failures to fulfil major role obligations at work, school or home.
2. Recurrent substance use in physically hazardous situations (e.g., driving or operating a machine when impaired by substance use).
4. Continued substance use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance.

(DSM-IV, American Psychiatric Association, 2000)
‘Consensus definitions’ of opiate use in treatment of pain

**Physical dependence**
“state of adaptation... produced by abrupt cessation, rapid dose reduction...”

**Tolerance**
“exposure to a drug induces ... diminution of the drug’s effects over time”

**Addiction**
“Primary, chronic, neurobiologic disease, characterised by one or more of:
- Impaired control over drug use
- Compulsive use
- Continued use despite harm
- Craving”

(American Academy of Pain Medicine, American Pain Society, American Society of Addiction Medicine – see Savage et al., 2003)
‘Consensus statement’ on problem opiate use in treatment of pain

“...no single event is diagnostic of addictive disorder. Rather, the diagnosis is made in response to a pattern of behavior that usually becomes obvious over time”

“good clinical judgement must be used in determining whether the pattern of behaviour signals addiction”

“definitions do not constitute formal diagnostic criteria ... may serve as a basis for future development of more specific, universally accepted diagnostic guidelines”

(Savage et al., 2003)
Factors associated with painkiller addiction in chronic pain

- Prescription forgery
- Preference for injecting
- Illicit drug use

But not:
- Aggressive complaining/arguments about pain
- ‘Unsanctioned’ dose increases
- Using multiple prescribers
  (‘drug-seeking behaviours’)

(Kirsh et al., 2002)
‘Pseudoaddiction’

- Patients’ reports of pain are not accepted or believed
- They resort to exaggerated or manipulative pain behaviours to obtain pain relief
- Those behaviours are perceived by staff as signs of drug addiction

(Weissman & Haddox, 1989)
What about in sickle cell disease?

- Can we assess genuine painkiller dependence versus ‘pseudo-addiction’?

- Which of those is more common, and what are the rates of each?
The study

- Semi-structured interviews with 51 adult patients with SCD

- 17 (33%) male, 34 (67%) female

- Age 17-57 years (mean 34, SD 10)

- 38 (75%) Hb SS, 13 (26%) Hb SC or Hb SBeta Thal

(Elander et al., 2003; Lusher et al., 2006)
Interviews about symptoms of substance abuse/dependence

1. Tolerance
2. Withdrawal
3. Greater use than intended
4. Attempt to give up or cut down
5. Excessive time spent
6. Social impairment
7. Use despite known problems
8. Failing role obligations
9. Use in physically hazardous situations
10. Legal problems
11. Use despite social or interpersonal problems
12. Craving
Classification of symptoms reported

Pain-related symptoms

- Resemble DSM-IV symptoms, but are observed only in the presence of pain or attempts to control pain.
- Would make patients vulnerable to misperceptions of addiction, and increase the risk of pseudoaddiction

Non-pain-related symptoms

- Also resemble DSM-IV symptoms, but are observed in the absence of pain, or where drugs are used for effects other than analgesia (eg to alter mood, obtain euphoria).
- Provide a measure of ‘true’ addiction, discounting drug needs for pain
Examples of symptoms classified as pain-related and non-pain-related

**Pain-related symptoms**

“I found I needed more and more medication [to manage pain at home and avoid going into hospital]” (Tolerance)

“...sometimes I am tempted to take it more frequently than prescribed, say when I am still in pain after two hours…” (Greater use than intended)

“I have done that before [taking more painkillers], thinking the more I take, the faster the pain would go” (Greater use than intended)

“...it makes my skin itch and makes me feel drowsy... but nothing else works. I try not to take it again but the pain always comes back” (Attempt to cut down)

“...if the pain is really severe and I take a high dose. The tablets make me sleepy and I have to go to bed, so I am not able to go out” (Social impairment)

**Non-pain-related symptoms**

“I couldn’t sleep without them [pain killers]. I was restless at night, walking up and down and feeling depressed” (Withdrawal symptoms)

“I have taken an excess amount, because of my psychological state; I was stressed and thinking of killing myself” (Greater use than intended)

“... I took two, three, or even four, I was, like, high…” (Greater use than intended)

“I knew I was becoming dependent and I weaned myself off…” (Attempt to cut down)

“I was going through problems – depression. I was staying indoors and not working and being awake all night” (Social impairment)
Most frequent symptoms

1. Attempt to give up or cut down (59% PR, 8% NPR)
2. Tolerance (43% PR, 4% NPR)
3. Social impairment (41% PR, 2% NPR)
4. Greater use than intended (35% PR, 10% NPR)
5. Failing role obligations (31% PR, 2% NPR)
6. Withdrawal (24% PR, 8% NPR)

(PR = pain-related, NPR = non-pain-related)
Least frequent symptoms

1. Legal problems (2% PR, 2% NPR)
2. Craving (12% PR, 6% NPR)
3. Use despite known problems (16% PR, 2% NPR)
4. Excessive time spent (18% PR, 0% NPR)
5. Use in physically hazardous situations (18% PR, 0% NPR)
6. Use despite social/interpersonal problems (20% PR, 0% NPR)

(PR = pain-related, NPR = non-pain-related)

(Elander et al., 2003)
**What factors associated with what symptoms?** (Lusher et al., 2006)

<table>
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<th>Pain-related symptoms (risk of pseudoaddiction)</th>
<th>Non-pain-related symptoms (genuine addiction)</th>
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<td><strong>Physiological symptoms</strong></td>
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<td>Illicit drug use ($\beta .31$, $p .03$)</td>
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<td>OTC(^1) drug use ($\beta .34$, $p .02$)</td>
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<td>Disputes ($\beta .34$, $p .01$)</td>
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<td>Behavioural coping strategies ($\beta .25$, $p .06$)</td>
<td>Illicit drug use ($\beta .31$, $p .04$)</td>
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$\beta = $ standardised regression coefficient $p = $ probability

1. OTC = over-the-counter
How many people reported how many symptoms?

![Bar chart showing the distribution of reported symptoms among participants, differentiated between non-pain-related and pain-related symptoms. The chart displays the percentage of participants reporting different numbers of symptoms, ranging from 0 to 9, with the highest percentage for 0 symptoms and a notable decrease for 1 and 2 symptoms. The bars for pain-related symptoms are colored blue, and those for non-pain-related symptoms are colored cyan.](chart.png)
Conclusions so far

- Rates of genuine painkiller addiction quite low in SCD, and comparable to other painful conditions.
- But many attempts to relieve pain can be misperceived as drug-seeking.
- Patients with use of painkillers that could be misperceived as addiction are risk of pseudoaddiction.
- Could these factors help to explain SCD patients’ problematic experiences of hospital pain management?
Reminder about concern-raising behaviours in hospital

- Staff-patient disputes
- Accusations/suspicions of painkiller abuse
- Using non-prescribed painkillers
- Tampering with analgesic delivery systems
- Self-discharge from hospital

Indicators of:
- Breakdowns of patient-provider trust
- Poor hospital pain management
Two hypotheses

1. CRBs caused by pseudoaddiction and undertreatment of pain

2. CRBs caused by painkiller dependence and patients’ drug-seeking
Which symptoms related to problematic hospital outcomes? (Elander et al., 2004)

Pain-related symptoms (pseudoaddiction)

Odds ratio\(^2\) = 2.3 (95% CI 1.2 to 4.4)

CRBs\(^1\)

Non-pain-related symptoms (genuine painkiller addiction)

Odds ratio = 1.0 (95% CI 0.4 to 2.8)

1. Disputes, tampering with pumps, passing analgesics, self-discharge, accused by staff of painkiller abuse
More conclusions

- The addiction/pseudoaddiction distinction is important, despite the superficial similarity
- Disputes and other problematic outcomes in hospital:
  - More likely the result of patient behaviours perceived as addiction
  - Unlikely to result from genuine painkiller dependence
- More research needed on how patient behaviours are perceived by hospital staff
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References


