

An implementation study of the
“Smarter Sleep” educational
interventions: reducing hypnotic
prescribing in psychiatric care

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Why is it needed?



PRESCRIPTION

*Zopiclone 7.5mg ON
Hydroxyzine 25mg ON
Promethazine 25mg TDS*

- 56 year old chef
- Schizophrenia
- Insomnia
- Depression
- Works long hours, goes to gym after work, drinks alcohol when home “to help with sleep”

“I’ve been on zopiclone for about 22 years now, but it’s still not helping.”

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Do we have the right approach for treating insomnia?

Why is it needed?

[Pharm Pract \(Granada\)](#). 2018 Jul-Sep; 16(3): 1256.

PMCID: PMC6207358

Published online 2018 Sep 26. doi: [10.18549/PharmPract.2018.03.1256](https://doi.org/10.18549/PharmPract.2018.03.1256)

PMID: [30416628](https://pubmed.ncbi.nlm.nih.gov/30416628/)

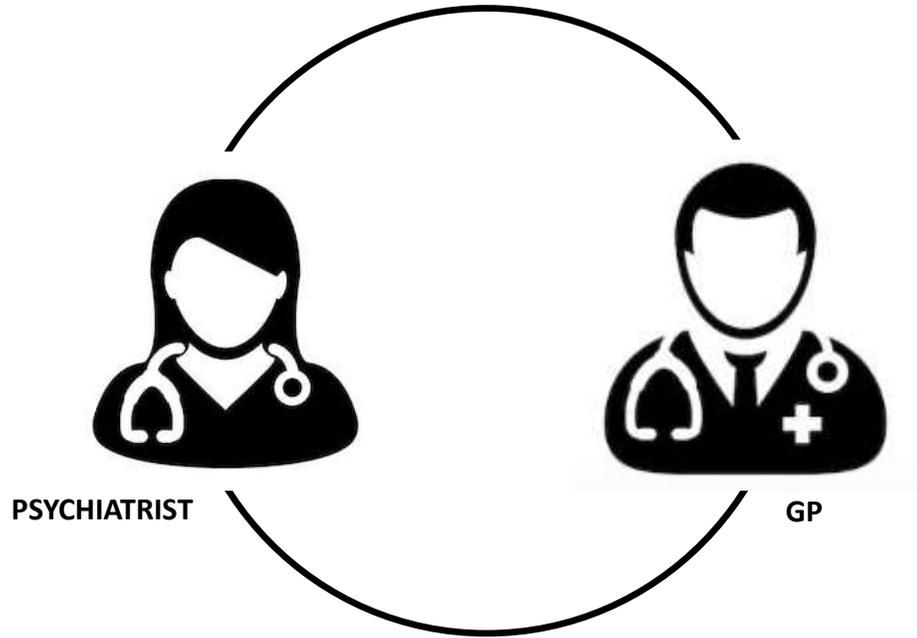
Benzodiazepine and z-hypnotic prescribing from acute psychiatric inpatient discharge to long-term care in the community

[Chris F. Johnson](#), [Ola Ali Nassr](#), [Catherine Harpur](#), [David Kenicer](#), [Alex Thom](#), and [Gazala Akram](#)

- 1 in 3 patients prescribed benzodiazepines at discharge
- 1 in 5 receiving continuous long-term benzodiazepine scripts 12 months post-discharge



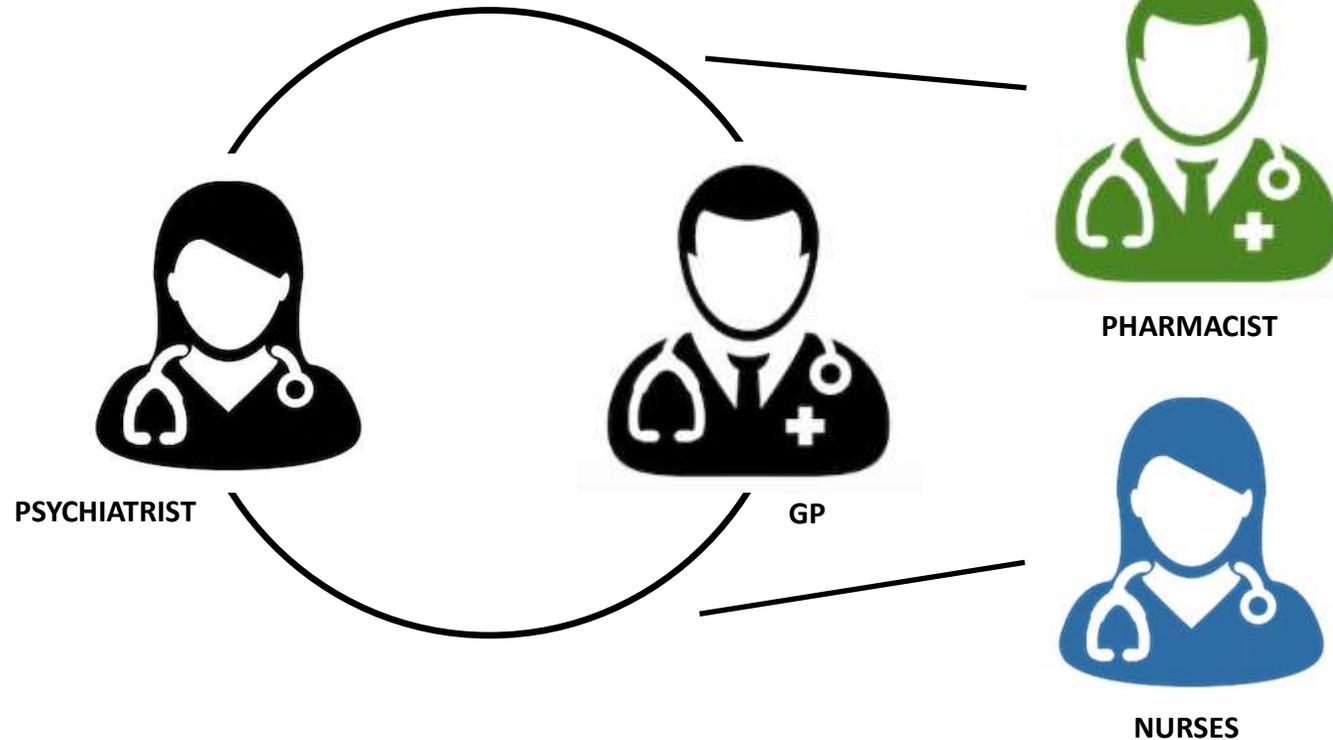
Why is this happening?



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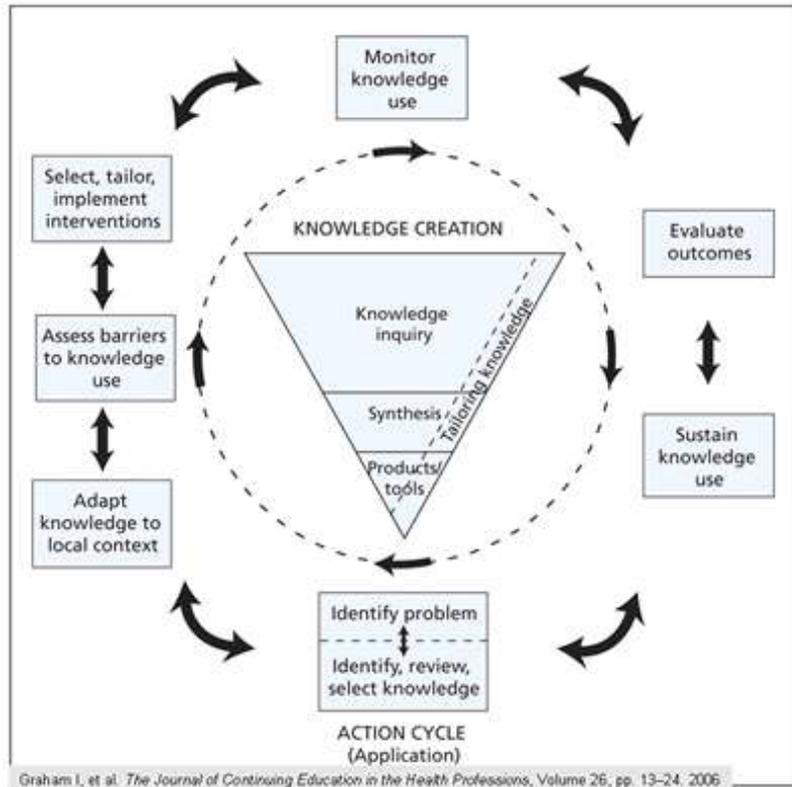
Why don't we follow evidence-based practice?

- Workload/time pressures
 - Lack of resources
 - Lack of authority to change practice
 - Workplace resistant to change
 - Workplace resistant to evidence-based practice
- “that’s the way we’ve always done it”*

*Wallis L. Barriers to Implementing Evidence-Based Practice...
AJN Am J Nurs. 2012 Dec;112(12):15.*

What can we do about it?

Knowledge to action framework¹



SmarterSleep INTERVENTIONS

Video: 'Nine Minutes for a Natural Night's Sleep' Provides an overview of subject area

Poster: To act as a reminder to nursing staff of alternatives to hypnotic administration

Handbook: Comprehensive overview of subject area for reference

1. Graham ID, Logan J, Harrison MB, Straus SE, Tetroe J, Caswell W, et al. Lost in knowledge translation: time for a map? *J Contin Educ Health Prof.* 2006;26(1):13-24.

Smarter Sleep INTERVENTIONS

Poster

Video

Handbook

Helping a patient with poor sleep?

NHS
Cumbria, Northumberland,
Tyne and Wear
NHS Foundation Trust

Before using sleeping tablets, have you tried:

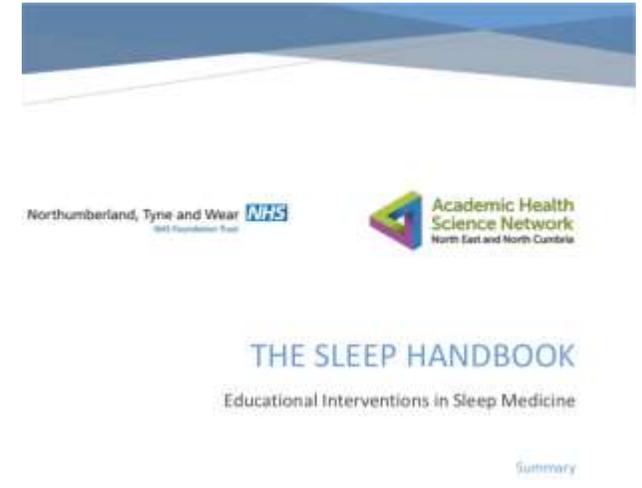
- Starting a sleep diary?**
 - All patients started on sleeping tablets should already be on a sleep diary.
- Simple lifestyle interventions?**
 - Exercise during the day, avoid heavy meals late at night.
- Reducing light and noise levels on the ward?**
 - Stop doors from slamming, reduce conversation volumes.
- Reducing observation levels (where appropriate)?**
 - Are hourly observations beneficial, or stopping the patient from entering deep sleep?
- Reducing caffeine and nicotine intake?**
 - Avoid caffeine/nicotine in the evening, reduce the number of cups per day.
 - Decaffeinated coffee still contains caffeine (20% that of a normal coffee).
 - 1 can of coke contains the same amount of caffeine as an espresso.
- Pharmacist medication review of stimulating medication?**
 - SSRIs, anti-thyroid, anti-parkinsonian drugs, prochlorperazine.
- Increasing natural light exposure?**
 - Patients should go outside every day. Indoor lighting does not have the same effect as natural light, but does standing behind a window.
- Setting a regular wake up time, and only going to bed when sleepy**
 - Staying in bed when unable to sleep can worsen insomnia.

Sleeping tablets can aid poor sleep, but long term use can lead to side effects. They should be reviewed every 2-4 weeks.

Sleeping tablets are best prescribed as an 'as required' medication. Patients should try to sleep without them before taking them, to reduce the chance of tolerance and dependence.

Cognitive Behavioural Therapy for insomnia (CBT-I) is as effective as sleeping tablets in the short-term, and more effective long-term. It is recommended by NICE as first line where available.

This poster is part of a set of educational resources in smarter sleep in complex wards. There is also a video and educational handbook. For more information or to access these resources, please contact alastair.paterson@nhs.uk



THE SLEEP HANDBOOK

Educational Interventions in Sleep Medicine

Summary

1 in 3 people will report symptoms of insomnia at some point during their lifetime (Great British Sleep Survey 2012). Educating patients about 'normal sleep' helps manage unrealistic expectations and reduce sleep-related anxiety.

Medication to induce and maintain sleep (hypnotics) are available for insomnia, but these are only recommended where Cognitive Behavioural Therapy for insomnia (CBT-I) is unavailable or has failed.

Practitioners should contribute to the identification and management of insomnia across care settings, and can easily embed CBT-I related interventions into their practice to spare hypnotic use and improve sleep.

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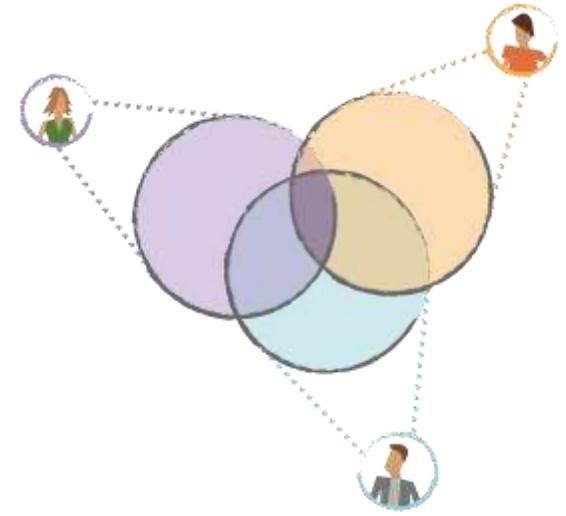
Methods: Intervention

Intervention

- Co-design approach²
Collaboration between researchers, clinicians & end-users to ensure outputs are appropriate for the context in which they are embedded

Implementation strategy

- Interventions delivered in parallel
- 8 wards (*including 1 control ward, geographically different site*)
- 2 months implementation period
- Hypnotic prescribing rates measured pre- and post- intervention
- Self-confidence scores of staff self-ranked both pre- and post- intervention
- Mapped to Knowledge To Action (KTA framework)¹



2. Jessup RL, Osborne RH, Buchbinder R, Beauchamp A. Using co-design to develop interventions to address health literacy needs in a hospitalised population. BMC Health Serv Res. 2018 Dec 20;18(1):989.

Methods: Evaluation

Prescribing + administration rates

- Retrospective drug chart audit (over 2 x 1 month periods, pre & post intervention)
- Count of *number of prescriptions* of hypnotics on inpatient chart
- Count of *number of administrations* of hypnotics against inpatient chart prescriptions

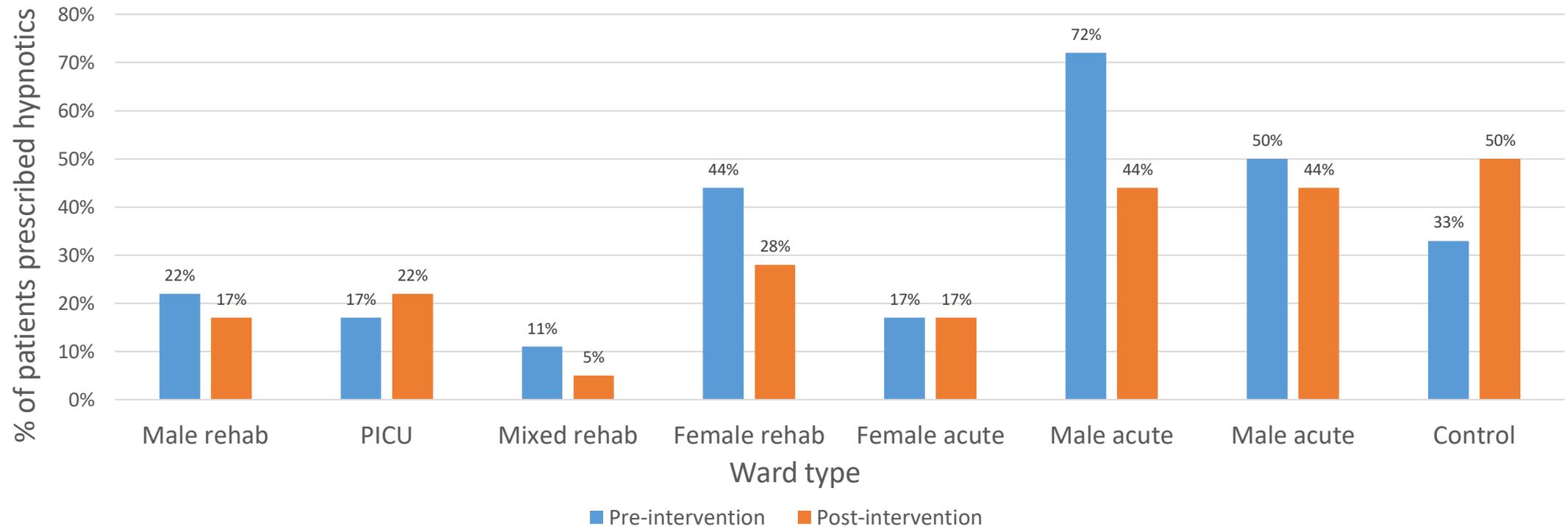
Staff self-confidence rating scale

- 1-5 ranking on Likert scale (0 – not confident, 5 – very confident)
- Rating in a) medication strategies, b) psychological strategies
 - Before using educational interventions
 - After using educational interventions

Results

Prescribing rates

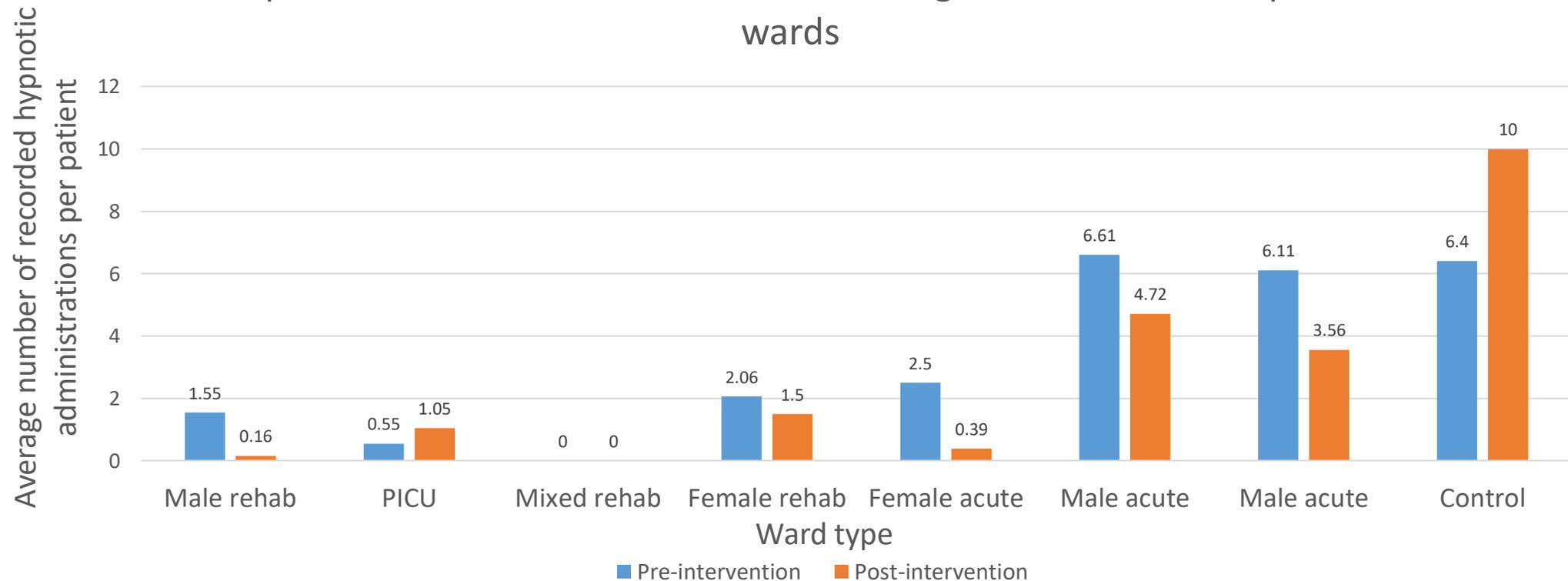
Percentage of patients prescribed hypnotics per ward pre- and post-educational interventions across eight mental health inpatients wards



Results

Administration rates

Average number of recorded administrations of hypnotics per patient pre- and post- educational interventions across eight mental health inpatient wards



Results

Staff self-confidence rating

Table 2: Self-rated confidence scores using a scale of 0-5 where 0 indicates no confidence and 5 indicates very confident, before and after using educational intervention

	Before intervention (n=86)	After intervention (n=45)	Actual difference	Percentage Difference
Self-rated confidence for Item "Using medication to help patients sleep"				
Mean score	2.77	3.71	+0.94	+18.8%
Self-rated confidence for Item "Using psychological strategies to help patients sleep"				
Mean score	2.40	3.18	+0.78	+15.6%

Results

Staff medication ranking

Table 3: Average rank order of hypnotics for prescribing, first choice to last choice, before and after educational intervention

Prior to intervention (n=86)	After intervention (n=45)
1. Zopiclone	1. Zopiclone (-)
1. Promethazine	2. Melatonin (↑)
2. Temazepam	3. Temazepam (-)
3. Melatonin	4. Promethazine (↓)
4. Zolpidem	5. Zolpidem (-)

Discussion

Hypnotic prescribing and administration rates

- Prescribing rates -24%
- Administration rates -41%

- Promethazine use reduced

- **Confidence self-rating scores increased**

Change in rank order of hypnotics

- Melatonin increased
- Promethazine reduced

End-user feedback

*'Patients were on hypnotics for weeks and weeks and then stopped immediately at discharge. This is bad practice and leaves a mess for both GPs and the patients. These interventions created a **change in culture** so that the mindset for patients prescribed hypnotics is now to **reduce them during the inpatient stay** wherever appropriate.'* - **Specialty Trainee**

End-user feedback

*'I feel like after watching the video, we started to encourage patients to **use non-pharmacological methods** more. This demonstrated that patients were often showing drug seeking behaviours, as they would often then go to sleep without needing hypnotics.'* - **Ward manager**

End-user feedback

*'Before being admitted to this ward I had been on zopiclone for **22 years without review**. It had last worked well for me about 3 months after I had started taking it. Since then, my GP had put me on another tablet to help with sleep [promethazine] and I still don't feel that helped. When I came in here I was given another drug [olanzapine] and I had the best night's sleep in a long time. Now one of the medications has been stopped [promethazine] as it was making me groggy during the day, and I'm hoping to come off zopiclone too. I am still not sleeping all that well at the minute, but we have talked about other things I can do to help this, like drinking less alcohol after work.'* - Patient

Conclusion

- **Simple, novel, online educational tool:**
 - Favourably received
 - Improved staff knowledge
 - Associated with reduction in hypnotic prescribing rates
- Paper under peer review (Psychiatric bulletin)

www.cntw.nhs.uk/smartersleep

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