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?

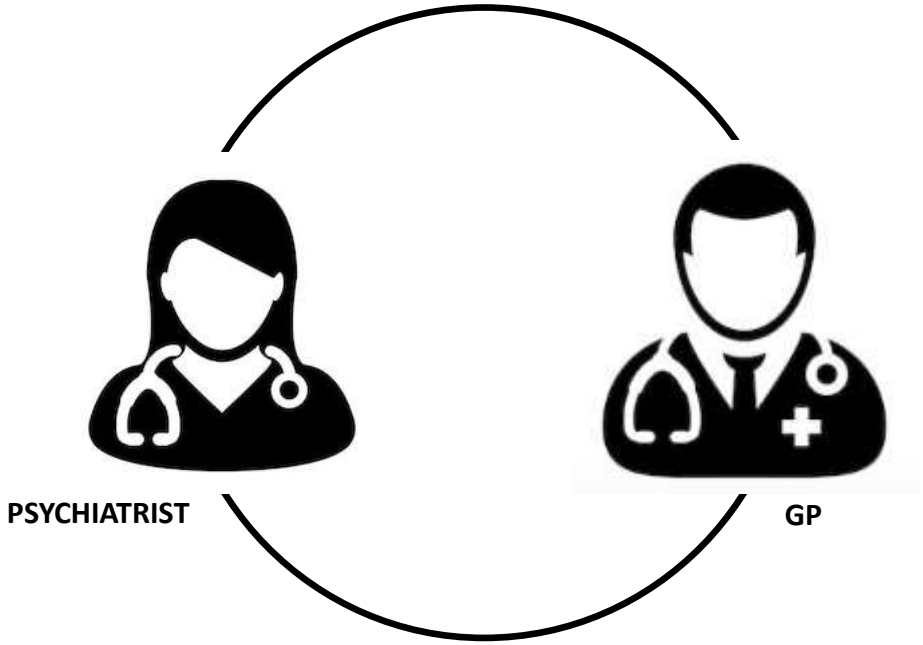
Pharm Pract (Granada). 2018 Jul-Sep; 16(3): 1256.
Published online 2018 Sep 26. doi: 10.18549/PharmPract.2018.03.1256
PMCID: PMC6207358
PMID: 30416628

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?



Why is this happening?

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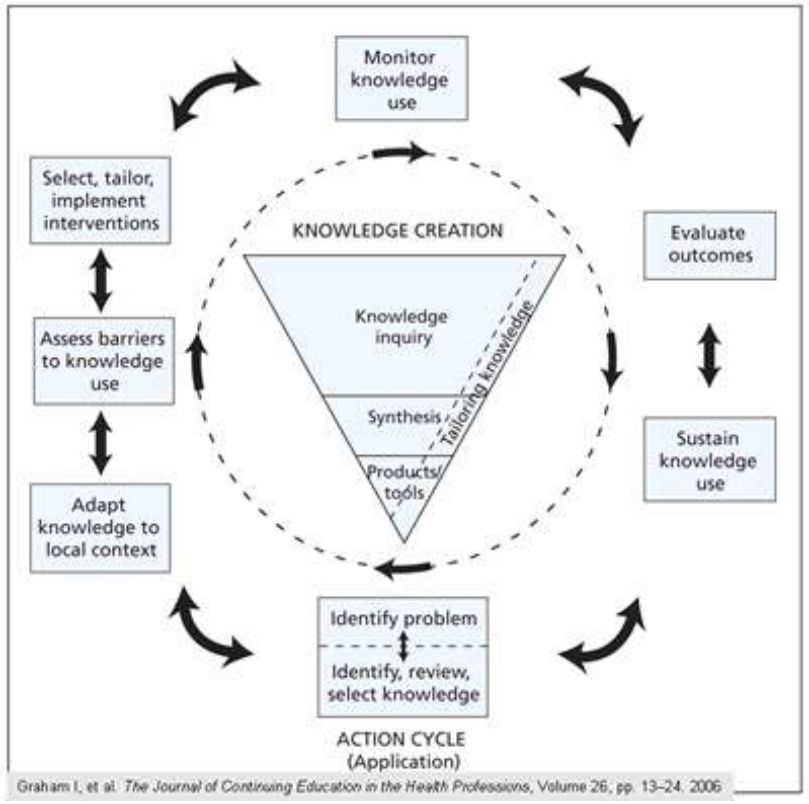
Why don't we follow evidence-based practice?

- 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 framework[1]



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.

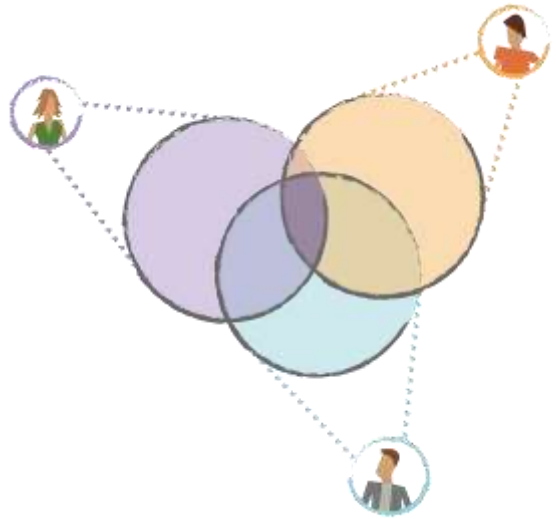
SmarterSleep INTERVENTIONS

Poster

Video

Handbook

Methods: Intervention



Intervention

- Co-design approach[2]

  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

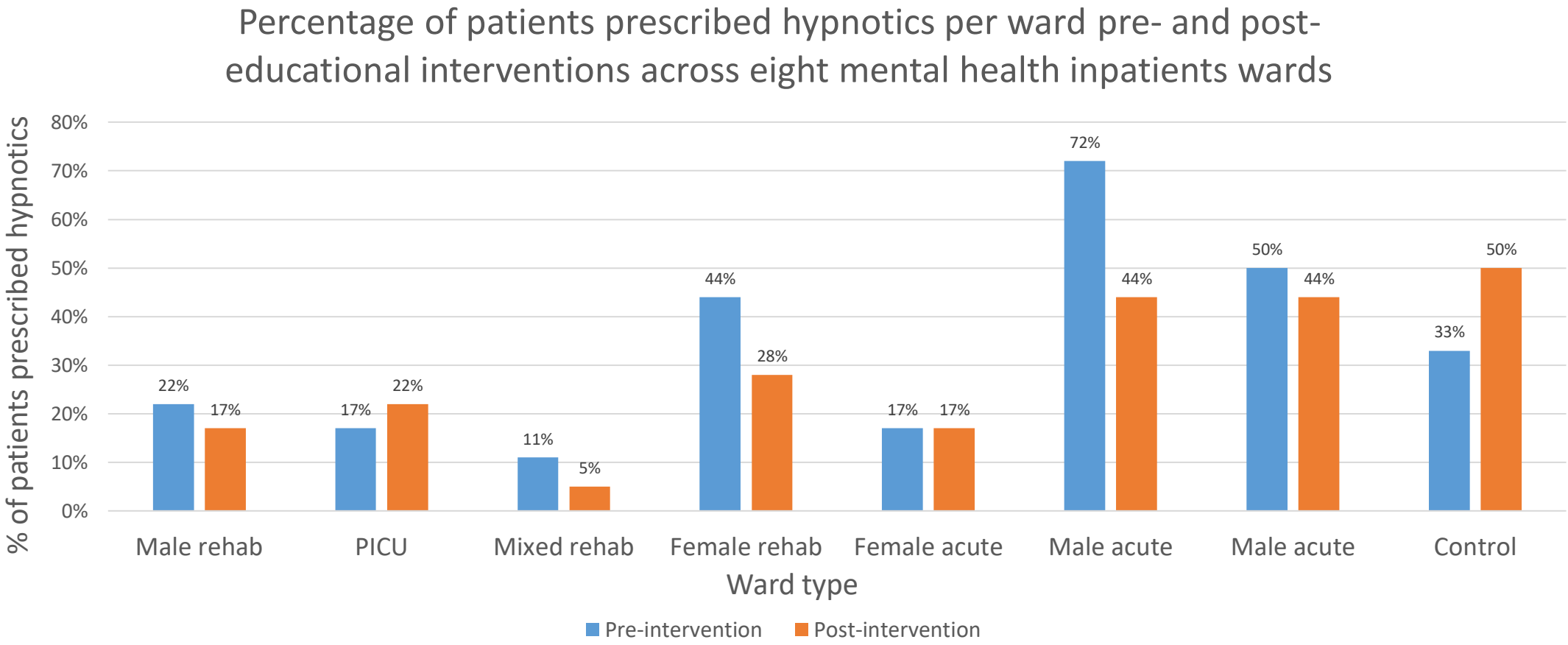
- Retrospective drug chart audit (over 2 x 1 month periods, pre & post intervention)
- Count of *number of prescriptions* of hypnotics on inpatient chart
- Count of *number of administrations* of hypnotics against inpatient chart prescriptions

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

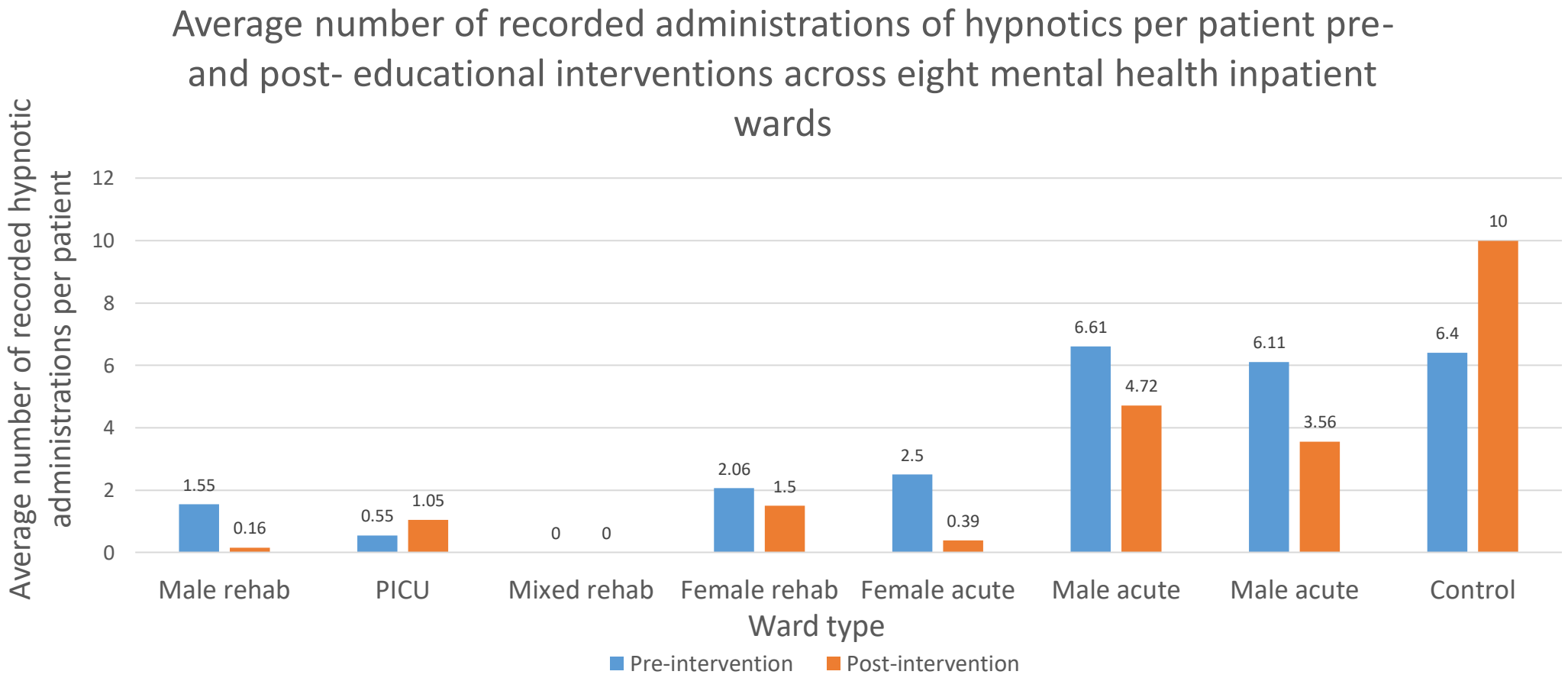
Results

Prescribing rates



Results

Administration rates



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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