

Can brief training for GP registrars and their supervisors reduce benzodiazepine prescribing? Poster 12

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While GP registrars, as a group, are reducing benzodiazepines and related drugs (BZDs) prescribing rates over time, individual GP registrar's BZD prescribing do not reduce during training¹. GP registrars prescribe BZDs mainly as maintenance therapy to unfamiliar and older patients with only half prescribed for anxiety or insomnia². We aimed to utilise behavioural change principles to facilitate the psychological management of insomnia and anxiety, and to reduce registrars' BZDs prescribing.

Methods

A working group comprising GP medical educators, psychologists and addiction physicians selected three pre-readings and developed a 40-minute presentation delivered during a training workshop for NSW & ACT Term 1 & 2 GP registrars. The presentation involved interactive discussions of three cases and was focused on skill acquisition. The material was modified for a 1-hour webinar delivered to the registrars' supervisors. There was also an optional training unit provided for GP registrar supervisors to address with their registrars.

Two evaluations of educational efficacy were conducted: (i) A pre- and post-workshop survey with the outcome of BZD prescription in response to each of three clinical vignettes.

(ii) Change in actual BZD prescribing evaluated using routine in-practice data collected by each registrar in 60 consecutive consultations each 6-month training term. The design was a non-equivalent control group design (with two training organizations not receiving the educational intervention acting as controls) nested within an ongoing cohort study. Analysis was at the level of individual problem managed, with the outcome factor being prescription of any BZD and included only patients ≥ 16 . Analysis used multivariable logistic regression with the p-value of an interaction term for pre-post intervention/intervention-control group indicating statistical significance.

Results

Analysis (i)

121 of 490 registrars attending the presentation returned a pre-workshop questionnaire. The post-questionnaire was returned by 71/121 (59%), a 14.5% overall response rate. The clinical vignettes involved: 1. Acute anxiety; 2. An elderly patient on long-term BZDs requesting a repeat hypnotic; 3. Preparation for facing a flying phobia.

BZD prescribed = Yes	n=71 Frequency (%) Pre	n=71 Frequency (%) Post	P (McNemar's chi ²)
Case 1	26(36.6)	20(28.2)	0.22
Case 2	42(59.2)	31(43.7)	0.028
Case 3	24(33.8)	24(33.8)	1.00

Analysis (ii)

There were 237,454 consultations available for preliminary

analysis (with some participant data outstanding), of which 4,369 (1.8%) involved a BZD prescription. On Intention-to-Treat analysis, BZD prescribing in the intervention group pre- to post-workshop was non-significantly lower, compared to the control group, with adjusted Odds Ratio 0.91 (95%CI 0.69,1.16;p=0.48). For registrars who attended the workshop, the Odds Ratio was 0.85 (0.63,1.15; p=0.29). For initiation of BZDs, the Odds Ratio for the interaction term was 0.92 (0.58,1.47).

Discussion

These evaluations showed that this brief but multi-faceted training package did not produce statistically significant reduction in actual BZD prescribing, with significant reduction in BZD prescribing in only one of three hypothetical vignettes.

These findings may reflect the analyses having limited power to detect differences in BZD prescribing. In the vignette-based study this was due to a lower than anticipated response rate. In the actual prescribing study this may have been influenced by a lower than anticipated pre-intervention rate of BZD prescribing in the intervention group. Attempting to effect complex behavioural changes and clinical culture changes through education may also require longer than the 3-4 months post-intervention period in this analysis. Further analyses, following further time for changes to be integrated into clinical practice, are planned.

1. Magin P, Tapley A, Dunlop AJ, et al. Changes in Australian Early-Career General Practitioners' Benzodiazepine Prescribing: a Longitudinal Analysis. *Journal of General Internal Medicine*. July 23 2018;33:1676.
2. Holliday S, Morgan S, Tapley A, et al. The pattern of anxiolytic and hypnotic management by Australian General Practice trainees. *Drug and Alcohol Review*. March 2017, 2017;36(2):261-269

Funding

The ReCEnT study is funded by an Australian Commonwealth Department of Health Research Grant, and supported by GP Synergy, the general practice Regional Training Organization for NSW & the ACT. GP Synergy is funded by the Australian Department of Health

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