

# Cognitive behavioral therapy aided discontinuation of benzodiazepine in chronic insomnia

Baillargeon L, Landreville P, Verreault R, et al. Discontinuation of benzodiazepines among older insomniac adults treated with cognitive-behavioural therapy combined with gradual tapering: a randomized trial. *CMAJ*. 2003;169:1015-20.

## QUESTION

In older patients with chronic insomnia who had been taking a benzodiazepine every night for  $\geq 3$  months, is cognitive behavioral therapy plus tapering (CBTT) more effective than tapering alone (TA) for inducing benzodiazepine discontinuation?

## DESIGN

Randomized (allocation not concealed\*), unblinded,\* controlled trial with 1-year follow-up.

## SETTING

A university hospital in Sainte-Foy, Québec, Canada.

## PATIENTS

65 patients  $\geq 50$  years of age (mean age 67 y, 58% women) with chronic insomnia ( $> 6$  mo) who had impaired daytime functioning or mood disturbances, had been taking a benzodiazepine nightly for  $\geq 3$  months, and were unable to refrain from taking a hypnotic for fear of poor sleep, or reported sleep efficiency (total sleep time/time in bed  $\times 100$ )  $< 80\%$  over a 2-week period. Exclusion criteria included severe psychiatric or physical problems and daytime benzodiazepine use. Follow-up was 95%.

## INTERVENTION

Patients were allocated to 8 weeks each of CBTT ( $n = 35$ ) or TA ( $n = 30$ ). Tapering in both groups was supervised by a physician who met weekly with each patient, and aimed at reducing the dosage of benzodiazepines by 25% at 1- or 2-week intervals. Cognitive behavioral therapy comprised 8 weekly small group sessions of 90 minutes and an optional booster session at 1 month after treatment; the aim was to reinforce the bed as a cue for sleep, enhance sleep efficiency, address thoughts that could exacerbate the sleep disorder, and educate about sleep and benzodiazepines.

## MAIN OUTCOME MEASURES

Benzodiazepine discontinuation confirmed by blood screening, assessed immediately after completion of treatment and at 3 and 12 months of follow up.

## MAIN RESULTS

Analysis was by intention to treat. More patients in the CBTT group than in the TA group reported complete benzodiazepine discontinuation throughout follow-up (Table).

## CONCLUSION

In older patients with chronic insomnia who had been taking a benzodiazepine every night for  $> 3$  months, cognitive behavioral therapy plus tapering was more effective than tapering alone for inducing benzodiazepine discontinuation.

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For correspondence: Dr. L. Baillargeon, Laval University, Sainte-Foy, Québec, Canada. E-mail lucie.baillargeon@crchul.ulaval.ca. ■

\*See Glossary.

## Cognitive behavioral therapy plus tapering (CBTT) vs tapering alone (TA) in chronic insomnia†

Outcome	Follow-up	CBTT	TA	RBI (95% CI)	NNT (CI)
Discontinuation of benzodiazepines	Immediately after treatment	76%	38%	101% (28 to 246)	3 (2 to 8)
	3 months	67%	34%	93% (15 to 248)	4 (2 to 15)
	12 months	70%	24%	189% (55 to 487)	3 (2 to 5)

†Abbreviations defined in Glossary; RBI, NNT, and CI calculated from data in article.

## COMMENTARY

The conventional approach to benzodiazepine withdrawal is to wean the patient off using tapering doses. In patients treated for insomnia, recurrence of sleeplessness during withdrawal is probable. Hence, physicians usually suggest nonpharmacologic measures to encourage sleep during withdrawal. The study by Baillargeon and colleagues may seem slightly artificial because in the TA group, the treating physician was not permitted to give such advice, although researchers would probably argue that this restriction was necessary to separate pharmacologic and nonpharmacologic treatment effects. The nonpharmacologic intervention was elaborate, involving 13.5 hours of group counseling with an experienced clinical psychologist comprising behavioral, cognitive, and educational components.

The effect of CBTT was impressive compared with TA, albeit applied to a select subgroup of patients who, as well as fulfilling stringent inclusion and exclusion criteria, expressed sufficient interest and motivation to participate in the study. In the transtheoretical model, this group of patients would probably be "contemplators" (i.e., at the stage of change where they are ready to take action) (1).

Because the level of resources used in this study is probably not generally available, further research should clarify the elements of the intervention that contributed most to the observed effect—was it the professional contact time, the group interaction, the instructions on sleep restriction and sleep hygiene, or the cognitive elements tackling beliefs about insomnia and about benzodiazepine hypnotics? If the key elements were made available to physicians (e.g., via training), it might be possible to enhance clinicians' existing nonpharmacologic strategies.

This study indicates that a complex cognitive behavioral intervention greatly improved success in benzodiazepine tapering and withdrawal in insomnia, although careful selection of patients helps too. Of course, the best prevention of benzodiazepine dependence is not to prescribe them in the first place.

Colin P. Bradley, MD, FRCGP  
University College Cork  
Cork, Ireland

## Reference

1. Prochaska JO, Velicer WF. The transtheoretical model of health behavior change. *Am J Health Promot*. 1997;12:38-48