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RESEARCH LETTER

Long term use of benzodiazepines by patients cared for by primary care physicians in consultation with psychiatrists

Saji Joseph Chathanchirayil[1] | **Alby Elias**[2,3]

[1]Goulburn Valley Health, Shepparton Hospital, Department of Rural Health, Faculty of Medicine, The University of Melbourne, Melbourne, Victoria, Australia

[2]Department of Psychiatry, The University of Melbourne, Melbourne, Victoria, Australia

[3]Mid-West Mental Health, The Royal Melbourne Hospital, Melbourne, Victoria, Australia

Correspondence
Alby Elias, Department of Psychiatry, The Universty of Melbourne, 176 Furlong Road, St. Albans, Victoria, Australia.
Email: alby.elias@unimelb.edu.au

Benzodiazepines (BDZ) continue to be among the most widely prescribed medications.[1] Recommended use of benzodiazepines is typically for short-term treatment. In the real-world practice, long-term use of benzodiazepines is reported however, with a prevalence varying from 2% to 3.5% in the general population and 30%–55% among the total users of benzodiazepines.[2] A nation-wide study in Australia showed an increasing rate of long-term benzodiazepine prescription in the general practice.[3] Most studies of the long-term benzodiazepines use were based on registry data; direct assessments of patients' use have been a few.[4,5] A sizable proportion of patients receive benzodiazepines from their General Practitioners (GP) or primary care physicians.

Participants for this study were selected from a consecutive sample of patients referred to a single specialist psychiatry practice by their general practitioners (GPs). For the present study, treatment with one or more benzodiazepines for a minimum period of 2 years and age above 18 years were the inclusion criteria. We chose the use of more than 2 years because previous studies followed up benzodiazepine users for 2–2.5 years and there is little information on the use beyond 2 years.[4,5] Potential participants were identified from the medical records that were screened for the period 2017–2020. Although the records were screened for referrals during 2017–2020, participants could have received a benzodiazepine any time prior to this period. Investigators of this study mailed out the participant information and consent forms along with the questionnaire to the potential participants.

The benzodiazepine dependence self-report questionnaire (Bendep SRQ) short version (SV) was used to screen for benzodiazepine use in the past 6 months.[6] The Bendep SRQ (SV) is a self-rated instrument that elicits responses on four key aspects of use: problematic use, preoccupation with the use, lack of compliance with prescriptions, and withdrawal symptoms.

The study identified 30 eligible patients who were contacted after receiving approval from the Human Research Ethics Committee of Goulburn valley health. The results are summarised in the Table 1. Altogether, 17 patients responded with consent to participate. The mean age of the responders was 62 years. There were 14 female participants and three male participants. All of them, except one, were current users of a benzodiazepine. Alprazolam was the commonest benzodiazepine. All except one participant were taking a single benzodiazepine. One participant was using a combination of diazepam (15 mg daily dose) and clonazepam (0.5 mg). The duration of benzodiazepine use prior to this study

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TABLE 1 Summary of findings

Total number of participants identified ($n = 30$)	Responders ($n = 17$)	Non-responders ($n = 13$)
Mean age	62	54
Gender	Females $n = 14$	Females $n = 5$
	Males $n = 3$	Males $n = 8$
Follow-up	Duration	
	Range = 3–40 years	
	Mean duration = 12 years	
Benzodiazepines	Number of participants	Mean daily dose at the time of follow-up
Oxazepam	3	35 mg
Alprazolam	5	4.5 mg
Diazepam	4	13.75 mg
Lorazepam	2	2.25 mg
Clonazepam	3	0.833 mg
Temazepam	1	20 mg

assessment ranged from 3 years to 40 years, with a mean of 12 years. All patients continued the same dose approved by the psychiatrist, and no patient showed dose escalation. None of the participants used any recreational substances other than alcohol or cannabis concurrently with benzodiazepines. Three participants reported concomitant alcohol use; one patient consumed 3–4 standard drinks a day, the other patient took two standard drinks a day, and the third patient took two standard drinks 5 days a week. One patient reported previous use of cannabis, not concurrently with a benzodiazepine.

According to the Bendep- SRQ, 13 (81%) participants reported a score of very low to moderate for the problematic use, three (19%) reported a high score, 59% ($n = 10$) reported low to moderate preoccupation 41% ($n = 7$) scored high to very high, 71% ($n = 12$) reported a low score on the lack of compliance with prescribed doses, five (29%) gave a high score on lack of compliance and 47% ($n = 8$) experienced low to moderate withdrawal symptoms. Fifty-three percent ($n = 9$) reported no withdrawal symptoms. A low score on lack of compliance indicates high adherence, and a high score in lack of compliance indicates low adherence to the prescribed benzodiazepines.

We analysed the profile of 13 non-responders. Their mean age was 54 years. There were eight males and five females. Eight non-responders were taking alprazolam, four were taking diazepam and one was taking clonazepam. The mean duration of benzodiazepine use prior to the current study was 19 years and ranged from 2 to 40 years.

The findings demonstrated that all patients maintained a stable dose of benzodiazepine over a relatively long period. This outcome is consistent with previous findings from observational studies.[7,8] The results also suggest a high rate of compliance with benzodiazepine prescriptions (71%). Accordingly, in our samples, the prevalence of non-compliance was 29%. Compliance thus far exceeded non-compliance despite the use of benzodiazepines stretching over decades.

The mean age of our sample of responders was 63 years. Existing literature suggests that long-term benzodiazepine use is more prevalent among older individuals than young age groups.[2]

This study is limited by the absence of inferential statistics because of a small sample size. In addition to the recollection bias, the reporting bias is possible because participants were selected from the clinic from where their use of benzodiazepine was endorsed. Investigation into the use of benzodiazepines extending over decades can be addressed by case series given logistics of conducting a randomised controlled trial or a prospective controlled study over such a long duration. Only 57% of the participants responded, and patients who would be misusing benzodiazepines or suffering from dose escalation are less likely to respond to study questionnaires than those who are appropriately using the medication. Still, the response rate in this study was 57%, and the average response rate to the postal survey was estimated at 57%.[9] Alprazolam was overrepresented among non-responders. Alprazolam is viewed as a preferred drug for abuse and social stigma might have hindered participation. Moreover, in Victoria, Australia, alprazolam has

been reclassified to Scheduled drugs and its prescription requires a special permit.

In summary, the present study with a relatively small number of participants suggests that most patients using benzodiazepines over the long-term did not report benzodiazepine dose-escalation, misuse or dependence. These findings warrant a large-scale follow-up study employing direct assessment of the long-term use of benzodiazepines rather than retrospective chart reviews.

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The author declares that there is no conflict of interest.

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DATA AVAILABILITY STATEMENT

The data will be provided when requested by any relevant and competent authority

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