

An inquiry into the health impacts of alcohol and other drugs in Australia

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General

Developing policy across the alcohol and other drugs (AOD) sector is a political minefield. This is because terms such as 'drugs' and 'addiction' are characterised by stigma (1). Popularist politicians may believe it is electorally advantageous to attack commonly ostracised groups. One such example of political messaging was seen within the first weeks of the Abbott Government regarding the Alcohol and other Drugs Council of Australia (ADCA). It was closed without warning or discussions with the board despite being a vital part of the national coordination and the support of AOD services and research.

Having said that, an inquiry such as this, or a drug summit, is politically a relatively safe way for differing views and for experts to be heard to work together towards better policy. The 1999 NSW Drug Summit was initially proposed by the Carr ALP Government on political grounds to manage pre-election outrage following the publication of photographs of IV drug use by young teenagers. Because they took a "Whole-of-Government" approach, many effective and lasting policy changes were introduced.

AOD policy is often at risk of being a policy orphan because it spans jurisdictions. Constitutionally regarded as an area covered by criminal justice regulatory system, it is allocated to state jurisdictions. The relationship between health departments at State and Commonwealth levels is not seamless. Too often, it has been one of determined (and counter-productive) cost-shifting and responsibility-blaming. The failure of the tiers of government to coordinate services was highlighted during the pandemic.

As a State responsibility, AOD health policy and service becomes part of health departments. These are dominated by hospital-based health care and hospitals only manage the tip of the iceberg of AOD harms directly. Within state health departments, AOD services may be marginalised. In NSW, AOD used to be stand-alone until it was moved under the umbrella of the mental health department. Folding AOD into MH is technically problematic as many psychiatric diagnoses, such as those found in the Diagnostic and Statistical Manual of Mental Illnesses V,

routinely rely on the exclusion of AOD conditions. Both the clients and clinicians working in AOD are often seen as outsiders, with hospital-based AOD facilities often kept physically separate.

States are responsible for most prison policy: who will be incarcerated and what happens to them when inside. There is a natural tension between the prison authorities and those delivering healthcare to prisoners. Prison authorities need to ensure control of the environment ensuring the avoidance of any risks. Those delivering healthcare are trying to reduce symptoms and prevent or treat disease. My impression is that this is not a meeting of equals but one where the former dominates the latter. Given that incarceration is not an infrequent transit point in the lifecycle of a AOD consumer, prison policy may drive AOD outcomes. One example of this tension is the lack of provision of clean injecting equipment in prisons outside the ACT. Needle and Syringe Program are known to reduce transmission of viruses such as Hepatitis C. Those released from corrections advise me that all illicit drugs are easily accessible in jail. Patients have frequently advised me that they commenced their drug habits while incarcerated. This does reflect on the effectiveness of the policy of prohibition. Given that we cannot even prevent easy drug accessibility in jail, should we continue to rely on policies of prohibition? Prohibition may well be generating more harms than benefits to consumers and to society.

Policy relevant to the interface of health and AOD is subject to powerful commercial pressures whose interests may be served by supporting or increasing AOD use. Legal industries and their lobbyists include the supermarkets and hotels, the entertainment industry, the liquor and brewing industry, the tobacco/vaping industry and the gambling industry. Political parties and these commercial powers find mutual advantage particularly when parties are looking to assemble funding for election campaigns. I understand the National Party currently accepts donations from Big Tobacco who clearly would not be donating for altruistic reasons. Reforms are required to exclude the tobacco and alcohol industries from providing political donations.

The pharmaceutical industry funds most drug trials and most post-graduate education of health workers. The spending has the purpose of advancing its marketing and commercial interests. To develop and support evidence-based

policy, training and practice we need Government support for research and education. NSW Health used to offer small grants of \$10-15,000 for clinician initiated AOD trials which supported research questions developed at the coalface. These funded several of my projects but, unfortunately, were defunded a decade ago. There are some large national grants, such as the NHMRC and the Medical Research Future Fund. Their rejection of the vast majority of applications seems wasteful and counterproductive. The predominant national non-commercial provider of education provision to doctors and practices used to be the National Prescribing Service (NPS). The NPS utilised evidence-based academic detailing for individuals or small groups. This service was de-funded in the last budget of the Morrison Government, a decision upheld by the incoming Albanese Government. The NPS MedicineWise's MedicineInsight program collected data from General Practice Electronic Health Records. This gave extraordinary insights into clinical management, both pharmaceutical and otherwise. This data collection facilitated individual feedback for clinicians and an evidence base for policy. Since the demise of the NPS, apart from COVID webinars, I have not seen any nationally run-out non-commercial education, nor any research observations from the MedicineInsight program. This is despite the Australian Commission on Safety and Quality in Health Care being tasked to continue the work of the NPS.

Aside from research and feedback, general practice Electronic Health Records have great value. Decision support tools could be developed, integrated and evaluated to improve care. One example may be the inclusion of prompts for deprescribing addictive medications.

Stigma is a driver of behaviour and culture. Clinicians, as members of the community, reflect cultural mores. In the same way as few clinicians choose to work with perpetrators of domestic violence, few want to provide evidence-based care to those in trouble with AOD use. I understand that well under 5% medical practitioners are authorised methadone prescribers. Clinicians often feel uncomfortable exploring AOD issues.

Cultural mores may retard clinical outcomes. An example of this is the neglect of role of the male in healthy reproduction. Regulators and clinicians regularly focus on the pregnant women who are using substances and judge them as 'irresponsible mothers.' The role of the males has been overlooked. Male

domestic violence can trigger female substance use. Epigenetic studies indicate if men drink pre-conceptually there are worse reproductive outcomes. Furthermore, the children of fathers that so drink have significantly increased anxiety & depression, with problems in sleeping and behaviours still present at ages 4 & 6 (2). Similar data is emerging regarding men who smoke tobacco or cannabis pre-conceptually. This indicates we need to warn those considering fatherhood or sperm donation to avoid substances in the three months before conception.

Professional development and AOD

The Commonwealth can support improvements in clinical culture.

The accreditation of the Professional Colleges should require examinations to regard items regarding AOD as mainstream problems. Accreditation of all private and public healthcare facilities should acknowledge the community interest in ensuring accessible care for those with addictions.

International Medical Graduates (IMGs) are an increasing proportion of our primary and secondary care workforce. The question data bank for their examinations should include AOD questions.

Accreditation of university health professional training should ensure substance use disorders are adequately covered. Adequate training in chronic pain and mood disorders should equip graduates to rely less on addictive pharmacotherapies.

The Medical Benefits Scheme (MBS)

The Medical Benefits Scheme (MBS) is a significant driver of clinical behaviour by directing what is funded and what is not funded.

The MBS generally supports procedures over time-based care. Patients dependent on addictive pharmaceuticals are often referred to as nightmare patients. Deprescribing addictive pharmacotherapies requires much poorly remunerated time with a significant emotional investment. Doctors may be

concerned they risk destroying the clinical relationship as AOD patients may wish to avoid being judged or may be desperate to preserve their medication supply. Doctors may face a risk of being subject to anger or threats, a complaint to a regulator or abusive reviews on social media.

Changing the momentum of long-term prescribing of opioids or benzodiazepines is difficult. This could be better supported with an item number supporting slow reductions of long-term opioid analgesics (excluding indications such as dependency or palliative care).

Where patients are unwilling or unable to cease, the introduction of strategies utilised by Addiction Medicine should be remunerated. This may be operationalised using the entry of a patient onto a formal opioid treatment program or by funding significant components of this such as the documentation of prescribing boundaries.

The MBS shapes the AOD GP and specialist workforce. GPs provide geographical and financial accessibility as well as capacity but it seems to be shrinking. In 1996, I was the only methadone prescriber in this mid-north coast region of NSW. Prescriber numbers grew to half a dozen ten years ago. However, again in 2024, apart from those consulting from a distance via telehealth, I am the sole opioid treatment program prescriber again.

The AOD specialist workforce is also in trouble. A 2021 audit showed the majority of Australian Fellows in the Chapter of Addiction Medicine are 60 years of age or greater. Training pathways comprised of 40 registrars, insufficient to cover expected retirements

The Pharmaceutical Benefits Scheme (PBS)

Currently, the PBS funds benzodiazepines and opioid analgesics outside of their evidence-based or accepted roles (discussed later). It also fails to support useful medications, at times because they are off-patent and so have remain unsponsored for requests to the TGA for subsidisation.

Some comments on some individual drug classes

Vaping

When benzodiazepines were first introduced around 1960, they were welcomed on the basis that they were far safer than barbiturates. Likewise, e-cigarettes were presented as a safer alternative for smokers and even as a means of quitting tobacco. However, e-cigarettes have their own unique harms as they may contain a toxic cocktail of metals including chromium, nickel, lead and even uranium. For this reason, simply switching from tobacco to vaping is not necessarily a healthy change. In any case, rather than switching, many smokers consume both. E-cigarettes have high and unpredictable levels of nicotine. During one study of over five thousand Australian adolescents, 24% reported initiating vaping from the ages of 12 to 17. Those who initiated vaping were almost 5-times more likely to then initiate smoking, particularly those aged 12-14 (3).

Many vapers are of reproductive age. The potential significance of this is emerging. A study of pregnant rats exposed to non-nicotine e-cigarette content showed effects on pup birthweight, as well as the pups' survival rates and brain blood flow. Exposed offspring seem to have increased anxiety with poorer physical activity. This extended to the age of six months, regarded as the age of rat maturity (4).

Many clinicians believe there is a clinical role for e-cigarettes. If so, it should be only for time-limited period of tapering.

Clearly illegal importation is currently and will be a major issue. One potential strategy would be for cargo ships and importers who use these ships to be made responsible, just as airlines are responsible for flying in passengers with appropriate documentation. Importers could be required to demonstrate identification and hold insurance to cover the fines for vape importation.

Tobacco

Of all AOD-related deaths, tobacco is the number one cause.

Taxation is an effective deterrent, but this must be backed up by the prosecution of illegal tax-free tobacco. Many smokers are now regularly sourcing illicit tobacco

as the price may be as little as one fifth that of regulated tobacco. I would expect far more Australians die from tobacco than on the roads and perhaps more police attention needs to be directed to retailers selling illicit tobacco.

The MBS should alter the criteria for substances covered by urinary drug screens. The addition of urinary cotinine levels will aid the detection of smokers and the confirmation of their cessation.

The PBS should subsidise all nicotine replacement therapies as well as nicotine patches. These include gum, lozenges and inhalers potentially provided at the same time. Given vapers may have higher nicotine habits than smokers, this will be important for both indications. Consideration should be given to adding cytosine to the PBS, even if its submission will not be sponsored by a pharmaceutical company. Varenicline, currently used for smoking cessation, was synthesized from cytosine (5).

Cannabis

There have been major policy changes regarding cannabis bypassing the research data, the usual source of guidance. With over one third of Australians having used cannabis in their lifetime, there is widespread support for reversing its criminalisation. In 2012-13, out of all illicit drugs, the majority of arrests (61%) were for cannabis (6). A de facto legalisation of cannabis has now been legislated that relies on doctors to decide whether cannabis is used to relieve symptoms or for euphorogenic purposes. Many people use cannabis for reasons such as to feel less bad or to feel good or to feel high. In terms of brain science, this is a continuum of the reward processes and not a simple binary of symptom relief (and thus deemed good) or intoxication (and thus deemed bad). Medicinal cannabis legislation has created a booming industry with claims of its health benefits for over a hundred indications. Most doctors remain unenthusiastic, unconvinced of the evidence around its safety and efficacy.

Some doctors are prescribing medicinal cannabis on-line to large numbers of customers. Often patients will not disclose this to their regular GP which may mean drug interactions may be missed. Concerns about liability for any new onset of psychosis or for traffic accidents remain.

There are no strongly evidence-based pharmaceuticals to treat cannabis use disorder, although medicinal cannabis seems to have an important role. More non-commercially-conflicted research is needed as to for what indications medicinal cannabis should and should not be used.

Alcohol

“Alcohol is the most damaging drug in pretty much every Western country,” stated Professor David Nutt, past Chief Advisor of the UK Advisory Council on the Misuse of Drugs. Worldwide, around 5% of all deaths and of lost disability-adjusted life-years are attributable to alcohol (7). This figure is conservative underestimating the impact of cancer and excluding any harms from depression, dementia or drug overdoses where alcohol was one factor.

Alcohol seems ubiquitous in Australian society and generally acceptable. Policy and health messaging cannot make the same assumptions. The most recent released Western alcohol guidelines are from Canada. They advise keeping to two standard drinks or less per week, to be more ‘likely to avoid alcohol-related consequences for yourself or others’ (8).

There is much public health research evaluating public health and alcohol regulation.

Taxation is one driver of outcomes. Our current system has evolved to include a non-evidence-based range of tax or excise levied per unit of alcohol consumed. A rational approach would utilise volumetric taxation where little tax to no excise is payable on low or zero alcohol containing beverages. Higher taxes and prices reduce risky binge drinking. A minimum pricing policy can prevent low-cost selling of items and is associated with reduced consumption (9). Home-brewed beer is currently not subject to excise, and the closure of this loophole should be considered.

Availability is also a matter for policy attention. This could look at hours or days of sale as well as retail outlet density. NSW research indicated the restriction of late-night alcohol availability was associated with the reduction in rates of domestic violence (10).

An MBS addition to consider: funding for urine toxicology screens should cover detection for ethyl glucuronide, a metabolite of alcohol.

Alcohol use disorders are rarely identified by clinicians until at extreme levels. Improved screening for those with alcohol use disorders should be supported. Some proposals may be the MBS funding of breath testing for alcohol. Given that GP Mental Health Care plans currently must include a question screening for suicidality, why not add one for alcohol? Alcohol screening could be improved with the addition of a single- item evidence-based screening question, “How many times in the past year have you had five or more standard drinks in a day?” (11).

The PBS also has a role. Thiamine malnutrition is common amongst heavy alcohol users. Thiamine is currently subsidised for Aboriginal and Torres Strait Islander peoples. It should be subsidised for all Australians on the PBS to reduce the risks of brain damage which may vary from incremental to catastrophic.

Disulfiram is an old drug and lacks a sponsor. While not a first or second choice for alcohol treatments, it should be presented to the TGA for funding as a public health measure (5).

Finally, cross-jurisdictional support should be given to support those doing detoxification in the community. Community detoxification from alcohol without clinician input occurs frequently. There needs more support for friends and families to enable the early identification and treatment of the potentially fatal delirium tremens (DTs).

Opioids

The Commonwealth Government should be acknowledged for adding opioid dependency medications to the PBS last year. This change was long overdue on equity and accessibility grounds.

The PBS should continue to support opioids for palliative care (breathlessness or pain) as well as active cancer treatment and end-of-life care (12). The PBS should also subsidise opioids for acute pain, usually no more than 3-7 days (13, 14).

However, the PBS should review its support for opioid analgesics for chronic noncancer pain. From 2013 -2017, each year around 16% of adult Australians were dispensed an opioid; almost all for chronic noncancer pain (15). Opioid use for periods longer than the acute, may be difficult to stop and may worsen pain outcomes or lead to addiction, diversion or overdose. The only Randomised Controlled Trial of the initiation of opioids for chronic musculoskeletal pain evaluated pain outcomes at 3, 6, 9 and 12 months (16). In those given opioid analgesics, pain intensity was better over the 12 months with less adverse medication-related symptoms.

At the same time as they relieve suffering, opioids create psychosocial changes and thus an overlap between their use for pain or addiction. The PBS indications do not reflect this complexity. Injectable (depot) buprenorphine, for example, has a TGA approved indication for addictions and not pain. Sublingual low dose buprenorphine (Temgesic®) has a TGA approved indication for pain and not addictions. These restrictive indications need to be removed to allow safer prescribing in the common context of overlapping pain and addictions.

For their ongoing subsidisation, the PBS requires one review by a second clinician at one year. This time-frame is far too late. I doubt there was any evidence supporting this requirement and recommend it be scrapped. For palliative care opioids, the PBS should add a requirement to return unused medications to the pharmacist when doses are increased or when the patient dies. Otherwise, large hoards of opioids accumulate. These are frequently used by others or sold.

The PBS covers take-home naloxone (or bystander naloxone). This allows non-clinicians to reverse opioid overdoses and saves lives. The Commonwealth should go further and mandate take-home naloxone to become a routine element of first aid training and equipment. This suggestion has become more pertinent since the recent detection of the potent opioid nitazenes in vapes which have caused overdoses.

After an opioid overdose, the most likely time of another overdose is in the first few days. One strategy used in the USA is to initiate buprenorphine directly after reversing an overdose with naloxone. While the patient is in withdrawal, buprenorphine may be initiated by the paramedics at the scene or by the

Emergency Departments (17-19). This strategy will require support to research and develop local guidelines and then to obtain TGA approval.

One opioid that should be subsidised on the PBS for more indications is the opioid blocker, naltrexone (a long-acting form of naloxone). Already TGA approved for alcoholism and weight-reduction, in low doses naltrexone may have a role for auto-immune diseases as well as chronic pain and mood disorders (20).

The MBS criteria for urine toxicology screens needs reviewing as many opioids may not show up on the subsidised screening panel (e.g. buprenorphine and lower doses of oxycodone)(21).

It is very difficult for a clinician to refuse a request for the initiation of strong pain killers. Once a patient is on regular opioids for more than a few days or a week, they may be unwilling or unable to taper or cease these. Doctors can prevent patients from initiating or maintaining opioids for chronic pain by initiating active self-management strategies (22). In parallel with this, chronic opioid analgesic patients may require the introduction of therapeutic boundaries as seen in methadone-programmes. These are each daunting undertakings demanding of both time and emotional energy. They simply will not happen unless supported by the MBS. To deal with their opioid epidemic, some States in the USA have mandated brief training before doctors can prescribe opioid analgesics. The inquiry should consider supporting those undertaking training in addiction care or biopsychosocial chronic pain care. Such prescriber education has the potential to assist but must first undergo evaluation (23).

High rates of chronic pain and higher rates of opioid prescription are found within Aboriginal and Torres Strait Islander populations_(24). Some years ago, in discussions with Aboriginal Medical Service executives, I learnt that many of their clinicians struggle with these situations. In conjunction with these executives and the NPS, I attempted to get a grant to fund brief education for AMS clinicians in chronic pain and safer opioid provision. The outcomes would have been identified by the NPS Electronic Health Record data collection. Unfortunately, we did not receive the grant.

Improving access to treatment for the opioid dependent is vital and requires collaboration from the Commonwealth and the States or Territories. There are frequently numerous barriers to providing such treatments (25). Very few (<5%)

GPs are authorised methadone prescribers and of those that do train, many never commence this service. Most addiction medicine patients require bulk-billing as they are disadvantaged and marginalised. In my experience, the bulk-billing of referred addiction patients is no more financially attractive than general practice and this should be addressed by the MBS.

Cross-jurisdictionally, all States and Territories have a different definition of problematic opioid use, none of which are those used by clinicians. These need to be standardised (26).

Sedatives and hypnotics

Benzodiazepines have an important and evidence-based indications for anaesthesia, emergency care, alcohol withdrawal and end-of-life care. However, their predominant use is for long-term anxiety and insomnia (27).

Benzodiazepines are associated with many harms including dementia and falls. They are very difficult to stop with withdrawal attempts usually leading to relapse. These withdrawal symptoms may still be present one year later (28). We need to reverse how the MBS fails to support the difficult task of deprescribing benzodiazepines while the PBS subsidises their introduction and continuation.

Unsubsidised by the PBS, however, is melatonin, the naturally occurring 'hormone of darkness.' This is not an addictive drug; it has few adverse effects, and it may indeed be neuroprotective. There is emerging data about its useful role in reducing withdrawal symptoms from tobacco and other substances, particularly the withdrawal-related insomnia. There is much research interest in the use of melatonin and related compounds for insomnia, anxiety, opioid and nicotine withdrawal. Medications based on the melatonin molecule are currently used in depression and may well be found to have a role in mood stabilization (29).

Consideration should be given to adding melatonin to the PBS due to this role and for enhancing healthy sleep.

Conclusion

The roles and limitations of current AOD policy and services have been examined. Suggestions have been made in general and regarding specific drugs or pharmaceuticals about how policy makers and funders can minimise harms and improve outcomes for the general population as well as specific sub-groups. The potential for cross-jurisdictional collaboration has been considered. Local and international literature has been reviewed up to the current time.

I welcome any requests for further comments and am grateful for the opportunity to contribute to this important Inquiry.

1. Room R. Stigma, social inequality and alcohol and drug use. *Drug and Alcohol Review*. 2005;24(2):143-55.
2. Luan M, Zhang X, Fang G, Liang H, Yang F, Song X, et al. Preconceptional paternal alcohol consumption and the risk of child behavioral problems: a prospective cohort study. *Scientific Reports*. 2022;12(1):1508.
3. Egger S, David M, Watts C, Dessaix A, Brooks A, Jenkinson E, et al. The association between vaping and subsequent initiation of cigarette smoking in young Australians from age 12 to 17 years: a retrospective cohort analysis using cross-sectional recall data from 5114 adolescents. *Australian and New Zealand Journal of Public Health*. 2024;Online ahead of print.:100173.
4. Mills A, Nassabeh S, Hurley A, Shouldis L, Chantler PD, Dakhllallah D, et al. Influence of gestational window on offspring vascular health in rodents with in utero exposure to electronic cigarettes. *The Journal of Physiology*. 2024;602(17):4271-89.
5. Blanco-Gandía MC, Rodríguez-Arias M. Pharmacological treatments for opiate and alcohol addiction: a historical perspective of the last 50 years. *European Journal of Pharmacology*. 2018;Epub ahead of print.
6. Australian Crime Commission. *Illicit Drug Data report 2012-2013*. Canberra,: Australian Crime Commission; 2014 April, .
7. Shield K, Manthey J, Rylett M, Probst C, Wettlaufer A, Parry CDH, et al. National, regional, and global burdens of disease from 2000 to 2016 attributable to alcohol use: a comparative risk assessment study. *The Lancet Public Health*. 2020;5(1):e51-e61.
8. Paradis C, Butt, P., Shield, K., Poole, N., Wells, S., Naimi, T., Sherk, A., & the Low-Risk Alcohol Drinking Guidelines Scientific Expert Panels. . *Canada's Guidance on Alcohol and Health: Final Report*. . Ottawa, Ont.: Canadian Centre on Substance Use and Addiction.; 2023 17/01/2023;.
9. Guindon GE, Zhao K, Fatima T, Garasia S, Quinn N, Baskerville NB, et al. Prices, taxes and alcohol use: a systematic umbrella review. *Addiction*. 2022;117(12):3004-23.
10. Kowalski M, Livingston M, Wilkinson C, Ritter A. An overlooked effect: domestic violence and alcohol policies in the night-time economy. *Addiction*. 2023;118(8):1471-81.
11. Smith PC, Cheng DM, Allensworth-Davies D, Winter MR, Saitz R. Use of a single alcohol screening question to identify other drug use. *Drug and Alcohol Dependence*. 2014;139(0):178-80.
12. Dowell D, Haegerich T, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. *Morbidity and Mortality Weekly Report (MMWR) Recommendations and Reports*. 2016; (March 18,):[1–49 pp.]. Available from: <http://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm>.

13. Nguyen AP, Palzes VA, Binswanger IA, Ahmedani BK, Altschuler A, Andrade SE, et al. Association of initial opioid prescription duration and an opioid refill by pain diagnosis: Evidence from outpatient settings in ten US health systems. *Preventive Medicine*. 2024;179:107828.
14. Shah A, Hayes C, Martin B. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. *MMWR Morb Mortal Wkly Rep*. 2017(66):265–9.
15. Lalic S, Ilomäki J, Bell JS, Korhonen MJ, Gisev N. Prevalence and incidence of prescription opioid analgesic use in Australia. *British Journal of Clinical Pharmacology*. 2019;85(1):202-15.
16. Krebs EE, Gravely A, Nugent S, et al. Effect of opioid vs nonopioid medications on pain-related function in patients with chronic back pain or hip or knee osteoarthritis pain: The SPACE randomized clinical trial. *JAMA*. 2018;319(9):872-82.
17. Ochalek TA, Ringwood KJ, Davis TT, Gal TS, Wills BK, Sabo RT, et al. Rapid induction onto extended-release injectable buprenorphine following opioid overdose: A case series. *Drug and Alcohol Dependence Reports*. 2023;7:100144.
18. Belden C, Kopak A, Coules C, Friesen T, Hall J, Shukla S. Building bridges to outpatient treatment services for post-overdose care via paramedic buprenorphine field initiation. *Journal of Substance Use and Addiction Treatment*. 2024;162:209364.
19. Herring AA. Postoverdose Initiation of Buprenorphine After Naloxone-Precipitated Withdrawal Is Encouraged as a Standard Practice in the California Bridge Network of Hospitals. *Annals of Emergency Medicine*. 2020;75(4):552-3.
20. Trofimovitch D, Baumrucker SJ. Pharmacology Update: Low-Dose Naltrexone as a Possible Nonopioid Modality for Some Chronic, Nonmalignant Pain Syndromes. *Am J Hosp Palliat Care*. 2019;36(10):907-12.
21. Holliday S, Tran H. Death due to intravenous use of α -pyrrolidinopentiophenone. *Med J Aust*. 2015;11(202):575.
22. Holliday S, Hayes C, Jones L, Gordon J, Harris N, Nicholas M. Prescribing wellness: comprehensive pain management outside specialist services. *Australian Prescriber* 2018;41(3):86-91.
23. Holliday S, Hayes C, Jones LE, Gordon J, Fraser C, et al. Prescribers or multidisciplinary? An evaluation of brief education for general practitioners on chronic pain management. *Health Education in Practice: Journal of Research for Professional Learning*. 2020;3(1):5-25.
24. Holliday S, Morgan S, Tapley A, Dunlop A, Henderson K, van Driel M, et al. The Pattern of Opioid Management by Australian General Practice Trainees. *Pain Medicine*. 2015;16(9):1720-31.
25. Holliday S, Magin P, Oldmeadow C, Dunbabin J, Henry J, Attia J, et al. An examination of the influences on New South Wales general practitioners regarding the provision of Opioid Substitution Therapy. *Drug and Alcohol Review*. 2013;32(5):495-503.
26. Brown CM. National registration of health professionals: could it presage national regulation of Schedule 8 medicines? *The Medical Journal of Australia* 2010;193(1):59.
27. Holliday S, Morgan S, Tapley A, Henderson K, Dunlop A, van Driel M, et al. The pattern of anxiolytic and hypnotic management by Australian General Practice trainees. *Drug and Alcohol Review*. 2017;36(2):261-9
28. Hood SD, Norman A, Hince DA, Melichar JK, Hulse GK. Benzodiazepine dependence and its treatment with low dose flumazenil. *British Journal of Clinical Pharmacology*. 2014;77(2):285-94.
29. Georgakopoulou VE, Sklapani P, Trakas N, Reiter RJ, Spandidos DA. Exploring the association between melatonin and nicotine dependence (Review). *Int J Mol Med*. 2024;54(4).