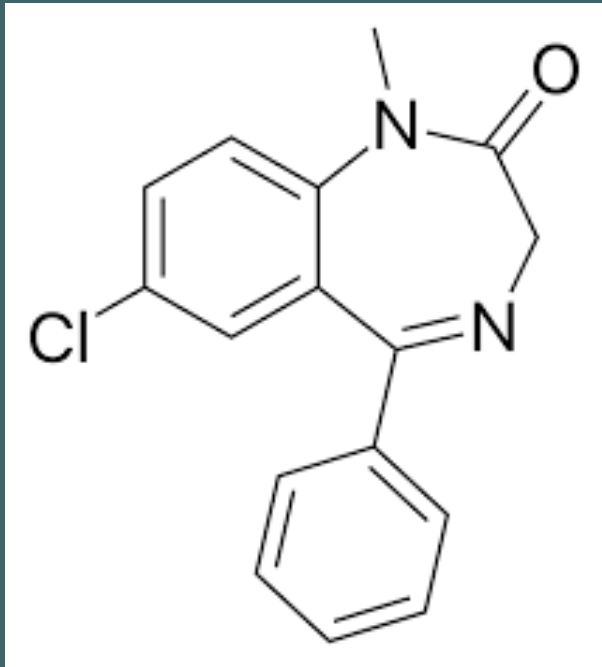


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# Systematic Review of Harm Reduction Strategies Targeting Benzodiazepines

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# Introduction and Background



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**Prevalence of Benzodiazepine Use:** Widely prescribed for a range of indications, but also prone to misuse.

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**Global Impact:** Third most misused drugs after cannabis and opioids, contributing significantly to drug-related deaths.

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**Novel Challenges:** Emergence of designer benzodiazepines with unknown safety profiles

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**Harm Reduction:** Strategies specific to benzodiazepines not previously systematically reviewed

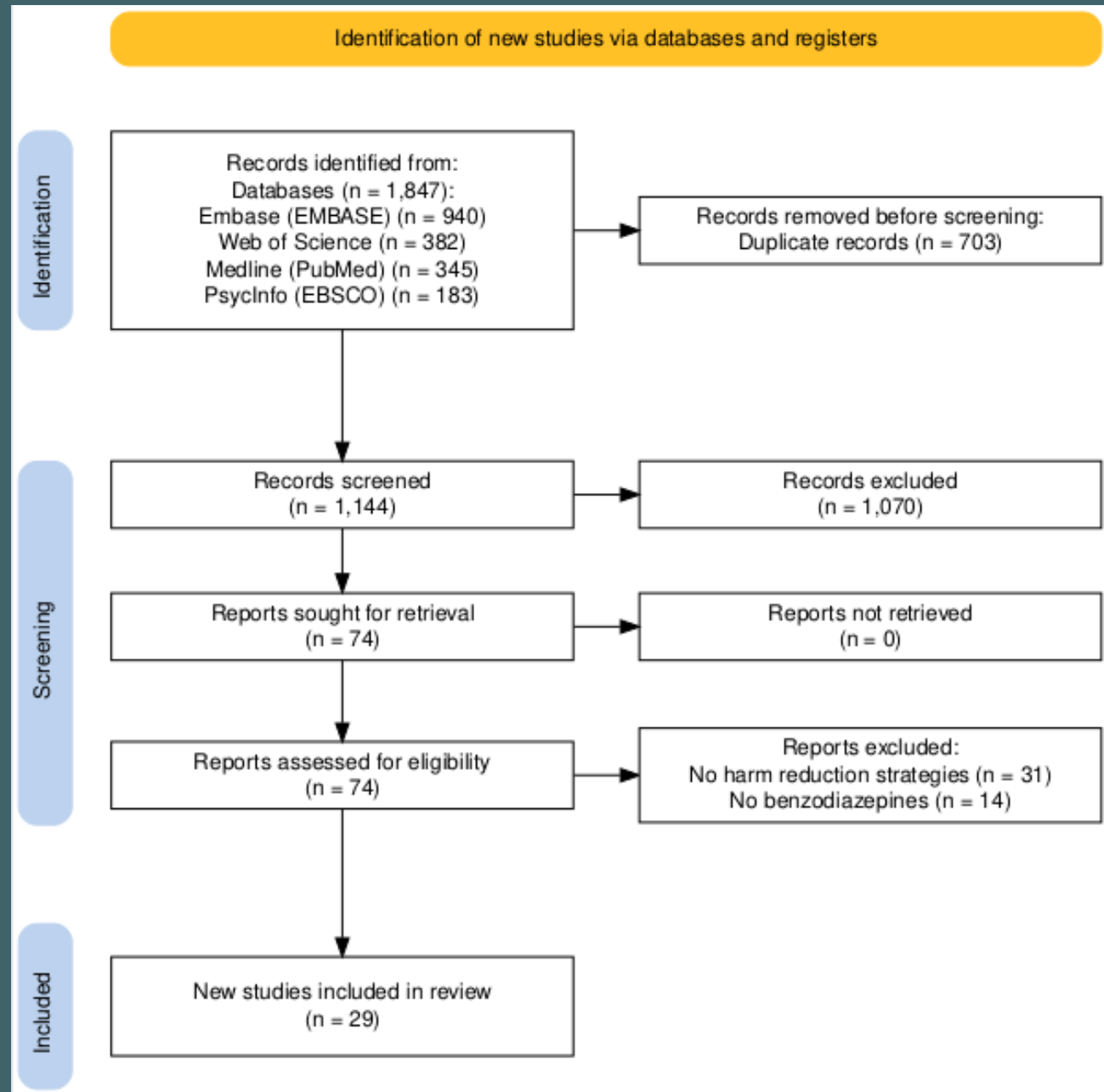
# Aims

- To explore the existing literature on harm reduction approaches for benzodiazepine use
- Secondary aim to describe any common themes that emerge

# Methods

- Four databases systematically searched according to PRISMA guidelines (PsycINFO, MEDLINE, Web of Science, Embase)
- Search commenced 14/2/24 and concluded 30/3/24
- "harm reduction" and associated keywords combined with "benzodiazepines" and specific drug names
- Inclusion criteria
  1. paper discussed harm reduction strategies
  2. discussed its relevance to one or multiple benzodiazepines
- Included papers underwent data extraction and analysis of main themes

# Results



# Identified themes

1. Direct interventions (n = 14)
2. Policy (n = 6)
3. Population specific interventions (n = 9)

# Direct interventions (n = 14)

- Drug checking (n = 9)
- Agonist treatment (n = 5)

# Drug checking (n = 9)

- Mass Spectrometry (PS-MS, GC-MS, LC-MS).
- Portable and point-of-care options (e.g., FTIR, fentanyl test strips)

## Outcomes:

- Identified unexpected substances like novel benzodiazepines in drug samples.
- Positive behavioural changes: Dose reduction, not using alone, carrying naloxone.

## Challenges:

- Cost and technical limitations.



# Agonist treatment (n = 5)

- Primarily based on "safer supply" initiatives during COVID-19 in homeless populations

## Outcomes:

- Low rates of adverse events, no overdoses
- Identified that patients prefer prescribed to illicit supply
- Improves treatment retention when combined with opioid replacement therapy but mixed mortality results

# Policy (n = 6)

- **Rescheduling Policies (n = 3):**

Alprazolam regulation in Australia reduced prescriptions and overdose deaths

- **Harm Displacement Risks:**

Shifts to higher-risk substances and behaviours

## **Proposed Solutions:**

Safer supply programs.

Expanding peer-led and systemic interventions.

# Policy (n = 6)

- Prescribing policies (n = 3)
- Primarily focused on cessation and other agonist treatments

## Outcomes:

- Identified no decrease in mental health patient caseload following implementation of "no benzodiazepines" policy
- Dexamphetamine agonist therapy included reduction in benzodiazepine use
- Identification of transfer of care as a key point in making changes to benzodiazepine prescribing

# Population specific interventions (n = 9)

- Online drug forum users (n = 3)
- People who inject benzodiazepines (n = 2)
- Young people (n = 2)
- Novel benzodiazepines (n = 1)
- Poison centre callers (n = 1)

# Population specific interventions (n = 9)

## Young People:

- Risks: Psychological distress, homelessness, and overdose

## Injecting Users:

- Midazolam-associated complications
- Harm reduction: Sterile supplies and education on safe practices

## Novel Benzodiazepines:

- Call for regulated supplies to mitigate risks of unregulated alternatives.

# Population specific interventions (n = 9)

- Poison centres: Quick access to overdose prevention information (n = 1)
- Online forums: Peer-to-peer harm reduction advice (n = 3)

## Opportunities and Risks:

Positive: Shared safety information and user experiences

Risks: Potential for misinformation

## Recommendation:

Ensure evidence-based, tailored messaging in digital spaces

# Implications for Harm Reduction

## **Key Gaps:**

Limited benzodiazepine-specific harm reduction strategies

Over-reliance on repurposing methods from other substances

Limited literature on strategies around novel benzodiazepines

## **Recommendations:**

Expand harm reduction services to include benzodiazepine-focused programs  
– drug checking rapidly developing as a preferred benzodiazepine harm reduction strategy

Develop targeted interventions for high-risk groups

Equip clinicians with tools for individualised care

# Conclusion

- Benzodiazepines contribute significantly to drug-related deaths
- Tailored harm reduction strategies are urgently needed
- Collaboration across clinicians, policymakers, and harm reduction advocates is essential
- Future research must prioritize long-term outcomes and benzodiazepine-specific approaches



Thank you