NIHR Applied Research Collaboration West

Understanding the lethal interactions between benzodiazepines and opioids

2024



The number of people dying because of drugs is rising in the UK, especially in Scotland. Many of these deaths involve a combination of opioids (heroin. methadone or buprenorphine) and benzodiazepines (benzos) or z-drugs (sedatives often used to treat anxiety and insomnia), either prescribed or obtained illegally.

We set out to understand how benzos or z-drugs and opioids work together and why this makes a fatal overdose more likely.

What did we do?

We interviewed 48 people who use opioids and benzos or z-drugs in Scotland, Bristol and Teesside.

We spoke to people about how and why they use the two types of drugs together, what effects they have and what role they have played in their overdose experiences.

What did we learn?

We learnt that co-using benzos or z-drugs and opioids can happen separately or simultaneously. It can be accidental or intentional.

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How people use benzos or z-drugs and opioids We identified six patterns:

- 1. To sleep or come down
- 2. Curated co-use
- 3. Morning and evening benzos or zdrugs with variable opioid use
- 4. Binges
- 5. Co-use throughout the day
- 6. Benzos or z-drugs throughout the day plus drug treatment

Across all the patterns people described using benzos to manage neurological and mental health conditions.

Most people saw the effects and risks of benzos or z-drugs and opioids as separate. Overdoses were mostly reported by those using benzos or z-drugs throughout the day and binging.

Why people use these drugs

Functional motivations included wanting to prevent withdrawal, address poor mental health, control emotions and manage pain.

Experiential motivations included desires to achieve the 'glow' (feeling comforted), the 'buzz' (feeling invincible and energised), 'oblivion' (forgetting or escaping previous or current trauma and adversity), and feeling 'gouchy' (physical and mental sensations of ebbing in and out of glow and oblivion).

Those seeking the glow or buzz described awareness of overdose risk and wished to minimise this risk. People aiming to achieve oblivion or to gouch out tended not to prioritise this.

Beliefs around risk reduction

Using benzos or z-drugs and opioids together was likened to playing Russian roulette due to an unregulated drug market, unpredictable potency, availability and contents of illegal drugs and a lack of information about how these drugs work together.

Awareness of the risks ranged from 'I can help myself' to 'there is nothing I can do'. The absence of tailored support for people using benzos or z-drugs and opioids reinforced beliefs of helplessness and hopelessness.

Gaps in treatment provision led to some trying to reduce the harms of their co-use including sticking to known 'dealers', only buying diverted prescription benzos and stockpiling 'safer' illegal substances.

What next?

We want to provide evidence-based solutions to minimise harm and reduce preventable overdose deaths.

Our findings are informing lab-based experiments aimed at understanding the neuronal mechanisms of why benzo and opioid use has such a high risk of overdose.

We are speaking to professionals who work

with people who use benzo or z-drugs and opioids to develop new, appropriate ways to reduce the harm of co-use.

Find out more

Read our pre-print paper bit.ly/benzos-z-drugs-opioids-preprint

Read our plain language summary arc-w.nihr.ac.uk/benzos-z-drugs-opioids/