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Microdosing amongst people who regularly use ecstasy and other illicit stimulants in Queensland and Tasmania, Australia, 2021

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Key Findings:

- One-fifth (21%) of participants reported microdosing in the previous six months.
- The most commonly used substances were hallucinogenic mushrooms and LSD.
- Most participants (56%) reported experiencing no challenges from their microdosing.
- The most commonly reported benefits experienced were enhanced mood/reduced depression, enhanced energy/alertness, and enhanced creativity/curiosity.

Introduction

- Microdosing refers to the practice of routinely ingesting a small quantity of psychedelics, between 5-10% of a standard dose, to obtain the positive effects of the drug, and minimise adverse effects.[1]
- Initially used to treat substance use disorders or counter treatment resistant depression[2], some reports suggest a rise in non-prescribed use in search of effects such as improvements in mental health, creativity, physical energy and cognitive performance.[3,4,5,6]
- A previous EDRS Bulletin showed an increase in LSD use but no change in the overall extent or frequency of psychedelic use.[7] To further investigate this trend, this Bulletin explores the extent of microdosing among people who regularly use ecstasy and other related stimulants.

Method

- The Ecstasy and related Drugs Reporting System (EDRS) is an annual cross-sectional survey of people who regularly use ecstasy and/or related stimulant drugs. Participants are recruited from capital cities in Australia via social media/peer referral and if eligible, complete a 1-hour structured interview.
- In 2021, interviews were conducted face-to-face, by telephone or videoconference so as to manage COVID-19 transmission risks; participants were reimbursed electronically or by cash.
- In 2021, questions about microdosing were included for interviews in Queensland and Tasmania (Brisbane, the Gold Coast and Hobart). This bulletin draws on Queensland and Tasmania data from these interviews.

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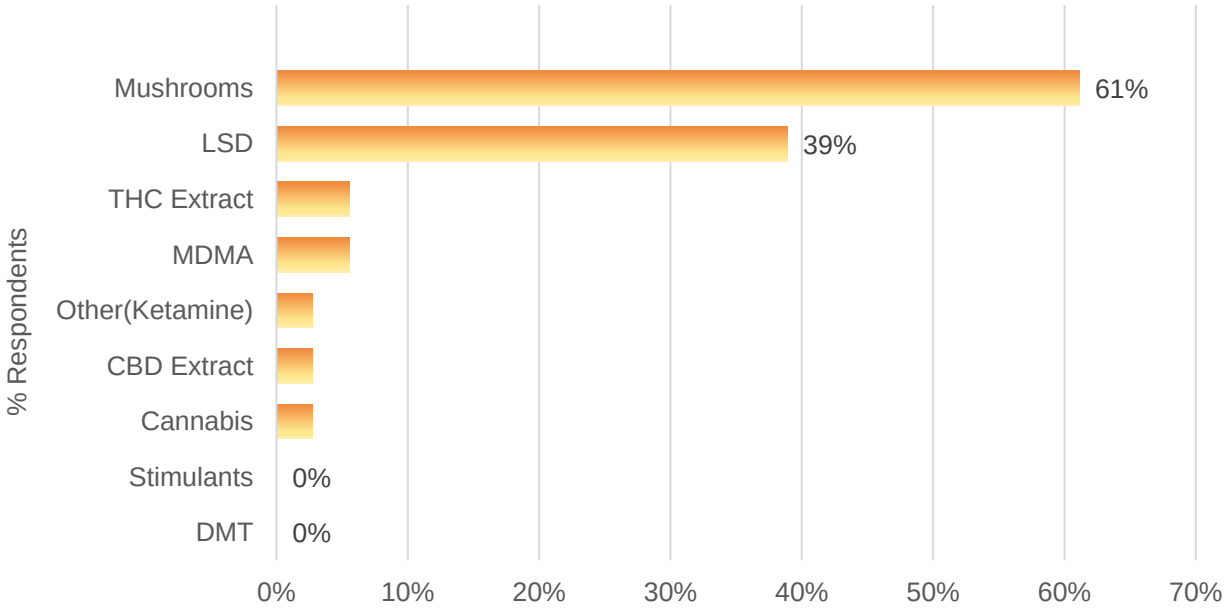
- We used χ2 tests and regression analyses to assess differences in mental and general health between those who did and did not report microdosing in the last six months. Statistical significance was considered as $p<0.05$.

Results

- In 2021, 21% of EDRS participants in Queensland and Tasmania reported having microdosed in the last six months.
- The majority of participants who reported microdosing were male (64%) and were heterosexual (69%). Participants reporting microdosing had a median age of 27 years, with the majority having completed Year 12 (83%) and over half (53%) were employed part-time.
- No significant differences were observed between Queensland and Tasmanian reports, or between the demographics of those who did and did not report microdosing.
- The most commonly reported substances used for microdosing were mushrooms (61%), and LSD (39%) (Figure 1).
- Small numbers of participants (n≤5) reported microdosing daily; 37% reported weekly or more microdosing, and 46% less than monthly microdosing.
- Participants who microdosed were more likely to report more-than-weekly use of any psychostimulant in the last month ($p=0.045$), and more days of use in the last 6 months of LSD (mean 15 days vs 5; $p=0.017$) or mushrooms (mean 9 days vs 4; $p=0.035$).

Figure 1: Substance/s used to microdose on last occasion, Queensland and Tasmania, 2021



Note. Y axis reduced to 70% to improve visibility. Multiple substances could be endorsed by participants. Data labels have been suppressed where there are small numbers (i.e., n≤5 but not 0).

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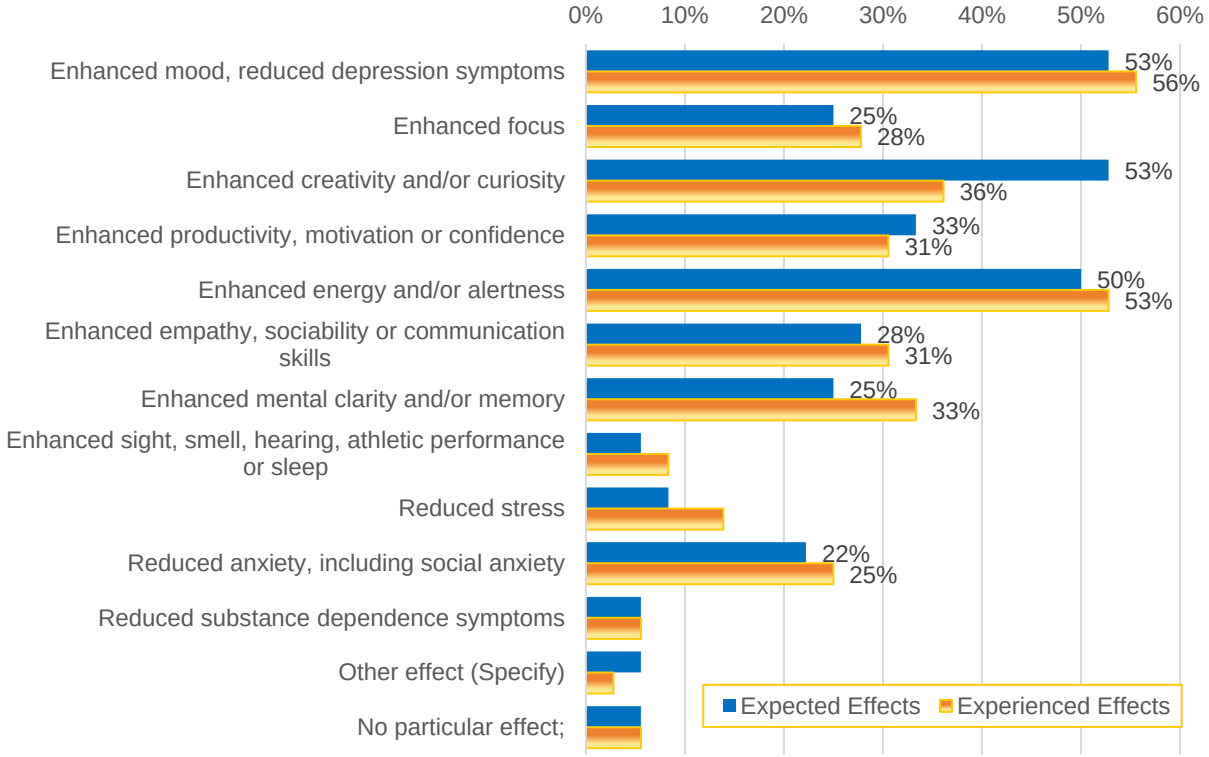
- 56% reported experiencing no challenges from their microdosing. However, those who did experience challenges most commonly reported dissociation/rumination and stomach pain, headaches/sleep problems/loss of appetite, although these were reported by small numbers (n≤5 but not 0).
- The most-commonly reported benefits experienced were enhanced mood/reduced depression (55%), enhanced energy/alertness (53%) and enhanced creativity/curiosity (36%) (Figure 2).
- In most cases, the effects experienced were consistent with those expected; somewhat fewer experienced enhanced creativity/curiosity than expected.
- We found no significant difference between those who did and did not microdose in terms of self-reported mental health issues (61% vs 61%), and recent psychological distress (44% vs 48% 'high'/'very high').

Figure 2: Expected vs experienced effects of microdosing, Queensland and Tasmania, 2021



Note. Y axis reduced to 60% to improve visibility. Data labels have been suppressed where there are small numbers (i.e., n≤5 but not 0).

Implications

- One-fifth of EDRS participants in Queensland and Tasmania reported microdosing in 2021. Frequency of use, expectations and experiences were largely consistent with previous literature.
- Most reported no challenges from their most recent experience of microdosing.
- Prevalence, frequency, experiences and potential links to health issues should be explored in a larger national sample. Frequent use of larger doses is more likely to be associated with adverse events; doses used by those who microdose thus warrant further monitoring.

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- Dr Jodie Grigg and Professor Simon Lenton, National Drug Research Institute and enAble Institute, Curtin University, Western Australia; and
- Catherine Daly, Dr Natalie Thomas, Dr Jennifer Juckel and Dr Caroline Salom, Institute for Social Science Research, The University of Queensland, Queensland.

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