Research paper

I like the old stuff better than the new stuff? Subjective experiences of new psychoactive substances

Allison Matthews\textsuperscript{a,}\textsuperscript{*}, Rachel Sutherland\textsuperscript{b}, Amy Peacock\textsuperscript{a,}\textsuperscript{b}, Joe Van Buskirk\textsuperscript{b}, Elizabeth Whittaker\textsuperscript{b}, Lucinda Burns\textsuperscript{b}, Raimondo Bruno\textsuperscript{a}

\textsuperscript{a}School of Medicine (Psychology), University of Tasmania, Private Bag 30, Hobart, Tasmania 7001, Australia
\textsuperscript{b}National Drug and Alcohol Research Centre, UNSW Australia, 22–32 King St, Randwick, NSW, 2052, Australia

\textbf{A R T I C L E   I N F O}

\textbf{Article history:}
Received 3 April 2016
Received in revised form 28 October 2016
Accepted 14 November 2016
Available online xxx

\textbf{Keywords:}
New psychoactive substances
Subjective ratings
Mephedrone
Psychostimulant consumers

\textbf{A B S T R A C T}

\textit{Background:} Over the past decade, monitoring systems have identified the rapid emergence of new psychoactive substances (NPS). While the use of many NPS is minimal and transitory, little is known about which products have potential for capturing the attention of significant proportions of the drug consuming market. The aim of this study was to explore self-reported experiences of three commonly used NPS classes within the Australian context (synthetic cathinones, hallucinogenic phenethylamines and hallucinogenic tryptamines) relative to traditional illicit drug counterparts.

\textit{Methods:} Frequent psychostimulant consumers interviewed for the Australian Ecstasy and related Drugs Reporting System (EDRS) (n = 1208) provided subjective ratings of the pleasurable and negative (acute and longer-term) effects of substances used in the last six months on the last occasion of use, and the likelihood of future use.

\textit{Results:} Stimulant-type NPS (e.g., mephedrone, methylenedioxymethamphetamine) were rated less favourably than ecstasy and cocaine in terms of pleasurable effects and likelihood of future use. DMT (a hallucinogenic tryptamine) showed a similar profile to LSD in terms of pleasurable effects and the likelihood of future use, but negative effects (acute and comedown) were rated lower. Hallucinogenic phenethylamines (e.g., 2C-B) showed a similar negative profile to LSD, but were rated as less pleasurable and less likely to be used again.

\textit{Conclusion:} The potential for expanded use of stimulant-type NPS may be lower compared to commonly used stimulants such as ecstasy and cocaine. In contrast, the potential of DMT may be higher relative to LSD given the comparative absence of negative effects.

© 2016 Elsevier B.V. All rights reserved.

\textbf{Introduction}

New psychoactive substances (NPS) have emerged rapidly on global drug markets over the past decade (\textit{EMCDDA, 2015}). NPS are comprised of both synthetic and naturally occurring substances, which are often analogous in their effects to traditional controlled substances such as ecstasy/MDMA, cocaine and lysergic acid diethylamide (LSD). For many NPS there has been little research examining their effects and associated risks for consumers, both in the short-term and long-term (Sumnall, Evans-Brown, & McVeigh, 2011). In 2014, NPS were detected at a rate of two per week in the European Union, with over 450 different NPS currently being monitored by the European Centre for Drugs and Drug Addiction (\textit{EMCDDA, 2015}). While the availability and use of many NPS is short-lived, some of these substances remain popular with continued use noted amongst regular psychostimulant consuming populations (Sumnall et al., 2011).

Given the ongoing access to NPS it is important to understand the consumers’ potential willingness to substitute traditional illicit drugs with NPS, and consequently maintain their popularity on the illicit drug market. Amongst regular consumers, preference for particular NPS has previously been linked to a number of variables including: preference for stimulant or psychedelic effects, perceived quality and purity relative to traditional substances, low probability of short-term and long-term harms, and positive ratings by peers or on the internet (Freeman et al., 2012; Moore, Dargan, Wood, & Measham, 2013; Sumnall et al., 2011; van Amsterdam, Nabben, Keiman, Haanschoten, & Korf, 2015). The present study will focus on subjective experiences of the positive and negative effects of NPS and how these compare to traditional illicit psychostimulant substances.

\textsuperscript{*} Corresponding author at: Division of Psychology, School of Medicine, University of Tasmania, Private Bag 30 Hobart, 7001, Australia. Fax: +61 3 6226 2883.
E-mail address: allison.matthews@utas.edu.au (A. Matthews).

http://dx.doi.org/10.1016/j.drugpo.2016.11.004
0955-3959/© 2016 Elsevier B.V. All rights reserved.
Amongst Australian samples of regular psychostimulant consumers, the use of NPS in the last six months has risen significantly from 33% in 2010 to 42% in 2015 (Sutherland et al., 2016). The most commonly used NPS classes within this context were hallucinogenic phenethylamines (e.g., 2C-I, 2C-B, 2C-E), hallucinogenic tryptamines (e.g., DMT, 5-meo-DMT), and synthetic cathinones (e.g., mephedrone, methylene, and MDPV/ivory wave), and while recent use of synthetic cathinones decreased over this six year period (18.5% vs 7.7%), there were overall increases in the recent use of hallucinogenic phenethylamines (8.5% vs 18.6%) and tryptamines (7.5% vs 10.9%) (Sutherland et al., 2016).

The synthetic cathinone class includes substances such as mephedrone, methylene, and MDPV. Originally mephedrone (4-methylmethcathinone; ‘MCAT’; ‘meow–meow’; ‘plant food’) was marketed as a ‘legal high’ and was largely sold online or in specialty shops (Brun, Poortoom, Niesink, & Van den Brink, 2010; Davey, Corazza, Schifano, & Deluca, 2010; Measham, Moore, Newcombe, & Welch, 2010), and despite the introduction of legislative controls, it has remained available via traditional face-to-face dealing in addition to online purchases (Winstock, Mitcheson, & Marsden, 2010). In contrast, other NPS such as MDPV and methylene have not necessarily had such a pervasive or lasting presence.

Few studies have examined consumers’ subjective reports of the positive and negative effects of mephedrone (Winstock et al., 2011; Winstock, Mitcheson, Deluca et al., 2010), but few studies have directly compared these subjective reports to other traditional illicit substances (Carhart-Harris, King, & Nutt, 2011; Kapitany-Foveny et al., 2013; Winstock, Mitcheson, Deluca et al., 2010), and there has been little research into the subjective effects of other popular synthetic cathinone derivatives such as methydone and MDPV. In one study examining the subjective effects of mephedrone (n = 145), the overall profile of subjective effects was rated as similar to MDMA, but positive and negative effects were not compared (Kapitany-Foveny et al., 2013). Similarly, amongst a sample who had consumed both ecstasy and mephedrone, almost three-quarters (73%) indicated that they preferred the effects of MDMA, but the specific profile of effects was not directly compared (Carhart-Harris et al., 2011). In contrast, in a study comparing the subjective effects of mephedrone and cocaine, over one-half of the sample reported that the quality (55%) and duration (65%) of the ‘high’ was greater for mephedrone (Winstock, Mitcheson, Deluca et al., 2010). In the only study to compare subjective ratings amongst recent consumers of ecstasy, cocaine, and mephedrone, ecstasy was rated highest in terms of the pleasurable ‘high’ and lowest in terms of acute negative effects (Usoskainen, Tacke, & Winstock, 2015).

In relation to hallucinogenic NPS, few studies have evaluated the subjective effects of hallucinogenic tryptamines such as DMT (N,N-dimethyltryptamine), and to our knowledge, no previous research has compared hallucinogenic phenethylamines (e.g., 2C-I, 2C-B, 2C-E) to more commonly used hallucinogenic substances such as LSD. One previous study compared the effect and risk profile amongst first-time users of DMT (n = 472), magic mushrooms (n = 1157), LSD (n = 1130) or ketamine (n = 993) (Winstock, Kaar, & Borschmann, 2014). DMT was reported to have a desirable effect profile characterised by a high strength of pleasurable effects, and a lack of negative effects (Winstock et al., 2014).

The aim of the present study was to explore subjective experiences of specific substances within the three most commonly used NPS classes amongst regular psychostimulant consumers in Australia: synthetic cathinones, hallucinogenic phenethylamines and hallucinogenic tryptamines. The research complements previous studies which have examined subjective ratings of specific NPS in comparison to substances that are already established in the illicit drug market (Usoskainen et al., 2015; Winstock et al., 2014). However, previous studies have not conducted statistical tests to directly compare subjective ratings amongst the same group of participants. Thus, in the present study subjective ratings were compared amongst matched samples who report recent use of each substance. To this end, synthetic cathinones were compared to ecstasy and cocaine, and hallucinogenic phenethylamines and tryptamines were compared to LSD.

Method

Participants and procedure

The current study comprised regular psychostimulant consumers (n = 1260) interviewed as part of the Australian Ecstasy and Related Drugs Reporting System (EDRS) in 2012 (n = 607) or 2013 (n = 653). To ensure independence, participants who completed the survey in 2012 (n = 33) were excluded from the 2013 sample. Inclusion criteria comprised: aged 16 years or older; at least monthly use of ecstasy or other psychostimulant drugs in the last six months; and residence in the Australian capital city of recruitment for the preceding 12 months.

Recruitment was via posters/flyers, internet forums, and word of mouth. Participants contacted the researchers and confidential face-to-face structured interviews (~60 min) were conducted in public locations. Participants received AUD40 reimbursement for their time and out-of-pocket expenses.

The EDRS is a national Australian study which aims to examine trends in ecstasy and related drug use and associated risk behaviours and health-related harms amongst regular psychostimulant consumers in Australian capital cities on a yearly basis. A full description on the methods and survey instrument can be found elsewhere (Sindicich & Burns, 2013, 2014).

Key measures

If participants had used any specified NPS in the last six months, they were asked to report number of days of use and provide subjective ratings of their effects on the last occasion of use. Those who had used ecstasy, cocaine or LSD in the last six months also provided days of use and subjective ratings for these substances. Subjective rating scales were devised by the authors and referred to the pleasurable and negative effects ‘during the high’ and the negative effects during the ‘comedown’ on the last occasion of use (from 0 ‘no effect’ to 10 ‘best/worst ever had [any drug?]’) and the likelihood that they would use the drug again if offered (0 ‘definitely not’ to 10 ‘definitely yes’).

Design and analysis

Mean subjective ratings were examined for stimulant (mephedrone, methylene, MDPV) and hallucinogenic (2C-B, 2C-I, 2C-E, DMT, mescaline) NPS. Statistical comparisons (paired t-tests) were conducted for matched samples (n > 20) who had used one of these NPS substances as well as other common psychostimulant (ecstasy and cocaine) or hallucinogenic (LSD) substances during this time. The matched samples were as follows: ecstasy and mephedrone (n = 66); ecstasy and methylene (n = 46); cocaine and mephedrone (n = 33); cocaine and methylene (n = 25); LSD and 2C-B (n = 89); LSD and 2CI (n = 46); LSD and DMT (n = 107).

Results

Demographics and substance use

The mean age of the sample was 22 years (SD = 6.5) and two thirds (66%) were male. Participants had completed a median of
12 years formal education, one-half (49%) were currently employed on a full-time or part-time/casual basis, and one-quarter (25%) were currently studying full-time or part-time. In the last month, two-fifths (40%) had consumed psychostimulant drugs weekly or more often, one-third (35%) at least fortnightly, and the remainder (25%) monthly or less often.

In 2012/2013, the most commonly used NPS stimulants amongst the sample were mephedrone and methylene and the most commonly used NPS hallucinogens were hallucinogenic phenethylamines (e.g., 2C-B, 2C-I, 2C-E) and DMT. Further information regarding the use of other NPS (Sindieich & Burns, 2013, 2014) and trends in NPS use over time (Sutherland et al., 2016) can be found elsewhere.

Table 1 shows the proportion of the sample reporting recent use and their frequency of use for the stimulant and hallucinogenic substances of interest. Almost the entire sample had used ecstasy in the last six months, at a median frequency of 12 days. This equates to approximately fortnightly use and suggests a pattern of largely recreational or weekend use. Two-fifths had recently used cocaine or LSD, and smaller proportions (13% or less) reported use of the NPS of interest. For cocaine, LSD, and NPS, frequency of use was relatively low at 1–3 days in the preceding six months.

### Subjective ratings of hallucinogenic NPS

Fig. 2 shows subjective ratings for the hallucinogenic substances of interest. In general, hallucinogenic phenethylamines (2C-B, 2C-I, 2C-E, mescaline) were rated as less pleasurable and less likely to be used again compared to LSD, with a similar profile of negative effects, aside from mescaline in which comedown effects were rated as lower (i.e., less negative). DMT showed a similar profile to LSD for pleasurable effects and the likelihood of using again, but DMT showed a more favourable profile in terms of negative (acute and comedown) effects.

### Matched sample comparisons

Where sufficient data points were available (n > 20), paired t-tests were conducted to examine differences in mean rating between traditional illicit substances and NPS. Amongst those who had used both ecstasy and mephedrone in the last six months (5%, n = 66), ecstasy was rated as more positive than mephedrone in terms of pleasurable effects, t(65) = −6.3, p < .001, d = 1.14, and likelihood of using again, t(65) = −5.6, p < .001, d = 0.92, with a lower rating for acute negative effects, t(65) = 2.4, p = .018, d = 0.41, and no significant difference in comedown effects, t(65) = 1.16, p = .25, d = 0.17 (Fig. 3). Amongst those who had used both ecstasy and methylene in the last six months (4%, n = 46), ecstasy was rated more positively than methylene in terms of pleasurable effects, t(45) = −4.5, p < .001, d = 0.77, and likelihood of using again, t(45) = −4.03, p < .001, d = 0.80, with no significant differences in mean ratings of acute, t(45) = 2.3, p = .02, d = 0.5, or longer term, t(45) = −0.60, p = .55, d = 0.10, negative effects (Fig. 3).

Cocaine was rated as more positive than mephedrone in terms of pleasurable effects, t(32) = −2.1, p = .04, d = 0.54, and likelihood of

---

**Table 1**

Use of stimulant and hallucinogenic substances of interest in the last six months among regular psychostimulant consumers (n = 1260).

<table>
<thead>
<tr>
<th>Substances</th>
<th>% used in last six months (n)</th>
<th>Median days of use in last 6 months (IQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>stimulant substances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecstasy</td>
<td>99 (1243)</td>
<td>13 (8-24)</td>
</tr>
<tr>
<td>Cocaine</td>
<td>38 (478)</td>
<td>2 (1-5)</td>
</tr>
<tr>
<td>Mephedrone (4MMC, meow, M-cat)</td>
<td>6 (70)</td>
<td>2 (1-5)</td>
</tr>
<tr>
<td>Methylenedioxyamphetamine (MDMA)</td>
<td>4 (50)</td>
<td>2 (1-4)</td>
</tr>
<tr>
<td>MDPV</td>
<td>2 (23)</td>
<td>2 (1-2)</td>
</tr>
<tr>
<td>Hallucinogenic substances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSD</td>
<td>39 (485)</td>
<td>3 (1-6)</td>
</tr>
<tr>
<td>DMT</td>
<td>13 (165)</td>
<td>2 (1-3)</td>
</tr>
<tr>
<td>2C-B</td>
<td>12 (147)</td>
<td>1 (1-3)</td>
</tr>
<tr>
<td>2C-I</td>
<td>5 (65)</td>
<td>2 (1-4)</td>
</tr>
<tr>
<td>2C-E</td>
<td>2 (19)</td>
<td>1 (1-2)</td>
</tr>
<tr>
<td>Mescaline</td>
<td>3 (32)</td>
<td>1 (1-1)</td>
</tr>
</tbody>
</table>

IQR = interquartile range.

---

**Fig. 1.** Mean ratings of stimulant drugs on last occasion of use in the last six months.
using again, \( t(32) = -4.0, p < .001, d = 0.99 \), amongst those who had used both in the preceding six months (3%, \( n = 33 \)), with a lower rating for negative ‘come down’ effects, \( t(32) = 3.2, p = .003, d = 0.68 \), and no significant difference in acute negative effects, \( t(32) = 1.52, p = .14, d = 0.33 \) (Fig. 4). Similarly, cocaine was rated as more positive than methylene in terms of pleasurable effects, \( t(24) = -3.8, p = .001, d = .95 \), and likelihood of using again, \( t(24) = -3.3, p = .003, d = 0.82 \), amongst those who had used both in the preceding six months (2%, \( n = 25 \)), with no significant differences in ratings of acute negative effects, \( t(25) = 1.13, p = .27, d = .25 \), or comedown effects, \( t(25) = .95, p = .35, d = .24 \) (Fig. 4).

Amongst those who had used both LSD and 2-CB in the last six months (7%, \( n = 89 \)), LSD was rated as more positive than 2-CB in terms of pleasurable effects, \( t(88) = 5.4, p < .001, d = .77 \), and likelihood of using again, \( t(88) = 4.7, p < .001, d = .58 \), with no significant differences in terms of acute negative effects, \( t(88) = -.68, p = .49, d = .10 \) or ‘comedown’ effects, \( t(88) = -1.9, p = .065, d = .23 \) (Fig. 5). Similarly, amongst those who had used both LSD and 2-C in the last six months (4%, \( n = 46 \)), LSD was rated as more positive than 2-C in terms of pleasurable effects, \( t(45) = 5.4, p < .001, d = .10 \), and likelihood of using again, \( t(45) = 5.8, p < .001, d = 1.0 \), with no significant differences in acute negative, \( t(45) = -2.79, p = .04, d = .14 \), or comedown effects, \( t(45) = 5.4, p = .01, d = .01 \) (Fig. 5).

Amongst those who had used both LSD and DMT in the last six months (9%, \( n = 107 \)), there were no significant differences in ratings of pleasurable effects, \( t(106) = -.31, p = .76, d = .04 \), or likelihood of using again, \( t(106) = -1.3, p = .19, d = .16 \), but acute negative effects, \( t(106) = 3.5, p = .001, d = .44 \), and comedown effects, \( t(106) = 7.0, p < .001, d = .86 \), were rated as lower for DMT relative to LSD (Fig. 6).

---

**Fig. 2.** Mean ratings of hallucinogenic substances on last occasion of use in the last six months.

**Fig. 3.** Matched mean ratings of ecstasy and mephedrone (n=66) and ecstasy and methylene (n=46) on last occasion of use in last six months.

**Fig. 4.** Matched mean ratings of cocaine and mephedrone (n=33) and cocaine and methylene (n=25) on last occasion of use in last six months.
Discussion

The aim of the present study was to examine subjective experiences of NPS amongst regular psychostimulant consumers and to compare these to other traditional illicit substances. Consideration of the positive and negative subjective perceptions of substances is likely to help predict which substances have potential for transitioning from niche to generalised products, and which substances may expand if there is a decline in availability of more commonly used substances.

The pleasurable effects of two commonly used substances (ecstasy and cocaine) were rated higher than two synthetic cathinones (mephedrone and methylone) amongst people who had recently used both substances. Similarly, participants indicated that they would be more likely to use ecstasy and cocaine if the opportunity arose. However, mephedrone was rated as more negative than ecstasy in terms of acute negative effects and more negative than cocaine in terms of comedown effects. These findings are broadly consistent with previous research comparing subjective ratings of mephedrone to traditional substances amongst different groups of people (Uosukainen et al., 2015), and provides further contextual information with regard to methylone. However, the present findings are in contrast to previous research in which mephedrone was rated more favourably in comparison to cocaine (Winstock, Mitcheson, Deluca et al., 2010).

Similar effects were found for the comparison of hallucinogenic phenethylamines with LSD. The effects of LSD were rated as more pleasurable than both 2C-I and 2C-B and likelihood of further use was rated as higher for LSD. The comedown effects were also rated lower for LSD relative to 2C-B. In contrast, there were no differences between LSD and DMT in terms of positive effects, but DMT was rated as lower in terms of acute negative effects and negative comedown effects.

The subjective profile of mephedrone and methylone suggests that these are unlikely to become more widely used than ecstasy or cocaine based on drug effects alone. This is consistent with the finding that use of synthetic cathinones amongst Australian psychostimulant users declined over a six-year period, from 18.5% in 2010 to 7.4% in 2015 (Sutherland et al., 2016). Similarly, although mephedrone remains readily available online, there has been a slight decline in the number of retailers selling this product to Australia (Van Buskirk et al., 2016). It is possible that the differences between these substances is partly driven by differences in their pharmacodynamic effects. Synthetic cathinones are thought to have similar psychostimulant effects as ecstasy and cocaine, and similar entactogen effects as ecstasy (Carhart-Harris et al., 2011; Kapitany-Foveny et al., 2013). However, the stimulant effects of mephedrone are considered to be lower in potency (due to a lower propensity to cross the blood brain barrier) and shorter in duration relative to phenethylamines such as ecstasy (EMCDDA, 2016). In terms of drug dependence as a potential driver for continued use, some research suggests mephedrone is associated with greater feelings of craving in comparison to MDMA (Brunt et al., 2010), and higher ratings of addictiveness than cocaine (Winstock, Mitcheson, Deluca et al., 2010). However, other research shows that consumers of MDMA and mephedrone are equally likely to report dependence symptoms (Uosukainen et al., 2015).

Subjective effects aside, market factors such as price, availability and purity are also likely to be important factors in the uptake and use of NPS substances (McElrath & Van Hout, 2011). Indeed, amongst Australian psychostimulant consumers, the relative ‘availability’ of mephedrone in comparison to other substances has been reported to be the most common motivation for use (Sutherland et al., submitted for publication). Furthermore, it is notable that increased use of mephedrone on global and Australian drug markets occurred at a time when the purity and availability of ecstasy was considered to be low (Brunt et al., 2010; EMCDDA, 2012), whereas more recent market indicators suggest a return to higher availability and purity of ecstasy (EMCDDA, 2015; Sindich & Burns, 2014; UNODC, 2014). Factors such as drug purity are also likely to have direct effects on ratings of subjective drug effects. Together the subjective effect profile and market indicator data suggest that NPS such as mephedrone are most likely to temporarily complement, rather than substitute, the use of traditional illicit drugs such as MDMA/ecstasy (Moore et al., 2013).

The subjective profile of DMT (characterised by high ratings of positive effects and low ratings of negative effects) was consistent with previous research comparing first-time users of DMT and other hallucinogens (magic mushrooms, LSD, ketamine) (Winstock et al., 2014). Thus, there may be more potential for the use of DMT...
to expand amongst regular drug users. However, the risk of DMT dependence was noted higher in terms of the ‘urge to use more’ amongst first time users of the drug, suggesting a low potential for abuse, which is a characteristic common to hallucinogenic substances (Winstock et al., 2014). Similarly, the likelihood of using again was rated the same for LSD and DMT amongst those who had recently used both substances in the present study. DMT is characterised by a shorter time to peak effect and a shorter duration of effect (Winstock et al., 2014) which may limit potential negative experiences, and this has been noted as a primary motivation for use by Australian psycho-stimulant consumers (Sutherland et al., submitted for publication).

The comparisons made between LSD and hallucinogenic phenethylamines are novel to the present study and suggest a relatively low potential for expanded use, particularly in terms of the lower ratings of pleasurable effects. While this is consistent with the plateau in the use of hallucinogenic phenethylamines amongst regular psychostimulant users in Australia over the past five years, substances from this drug class remain one of the most common NPS consumed amongst this cohort (Sutherland et al., 2016) or sold on online market places (Van Buskirk, Roxburgh, Bruno, & Burns, 2015). While the present study has focused on 2C-x substances, recent research suggests that NBOMe compounds have a similar positive profile in comparison to LSD, but may have more negative acute effects (Lawn, Barratt, Williams, Horne, & Winstock, 2014). Thus, further research into NBOMe is warranted.

While self-report data may be subject to recall bias, evidence points to sufficient validity and reliability of self-report in studies assessing illicit drug use (Darke, 1998). However, participants in the present study were a self-selecting sample of regular psychostimulant users and may not be representative of the NPS using population. A further limitation is that the exact composition and purity of substances are unknown and a majority of the sample were regular users of multiple other substances. Furthermore, given the subjective nature of the rating scales, the pleasurable and negative effects associated with each drug, and the other potential drivers for use (e.g., price, purity, availability) are unknown, and are largely dependent on the individual experiences of each consumer.

Given that NPS continue to emerge at an exponential rate, it is important that we can quickly identify which ones are most attractive to consumers. The present findings have important implications for understanding the potential of NPS to gain further popularity in illicit psychostimulant drug markets and may help to inform policy and frontline workers. The results suggest the popularity of stimulants such as mephedrone and methyleone may be lower when compared to commonly used stimulants such as ecstasy and cocaine. Similar findings were found for 2C-I and 2C-B when compared to LSD. In contrast, the potential for DMT to gain continued popularity may be greater given the relatively lower subjective negative effects reported in comparison to LSD.

Acknowledgments

The EDRS is funded by the Australian Government Department of Health. The authors would also like to thank the participants who were willing to share their experiences.

Conflict of interest

None of the authors have any conflicts of interest to declare.

References


