

SUPPLEMENTARY MATERIAL

INFORMATION PSYCHEDELICS AS POTENTIAL NOVEL TREATMENTS

Psychedelics comprise a broad category of compounds including psilocybin ('magic mushrooms'), LSD, dimethyltryptamine (DMT), Ayahuasca, MDMA, Ketamine and Cannabinoids. These are powerful psychoactive substances that alter perception, mood and thought processes. Since the 2000s, there has been renewed research interest in the use of psychedelics for treating some mental health conditions; **psilocybin*** and **MDMA#** in particular. These studies often involve a single dose of the substance, typically administered in a medically supervised and comfortable environment, under the guidance of experienced therapists and within an authorised clinical trial. Psychiatrists, psychological therapists and mental health nurses are at hand to offer psychological support, most commonly verbal reassurance and active listening.

Studies show that psychedelics, when used in medically supervised settings, are physiologically and psychologically safe, and do not lead to dependence or addiction (Rucker, Iliff, Nutt, 2017; Studerus et al. 2011; Nutt D., 2019). Recently, due to promising results in patients with treatment-resistant disorders, the American Food and Drug Administration has classed MDMA-assisted psychotherapy for PTSD, and

psilocybin treatment for depression as "breakthrough therapy". Large-scale clinical trials are currently underway in the United States, Canada, Europe and Israel.

***Psilocybin** is the active ingredient in over 100 species of psilocybe mushroom (Nichols, 2016). Psilocybe mushrooms are commonly known as 'magic' mushrooms due to the hallucinogenic experience they produce (Nichols, 2016). Psilocybin has been studied for the treatment of depression (Carhart-Harris et al., 2016, 2017), addiction (Johnson et al., 2014, 2017; Bogenschutz et al., 2015, 2018), obsessive-compulsive disorder (Moreno et al., 2006), depression and anxiety in patients with life-threatening diagnoses (Grob et al., 2011; Griffiths et al., 2016; Ross et al., 2016). These studies suggest that when administered under medical supervision, psilocybin is safe and may be effective in the treatment of various chronic and complex mental health conditions.

#MDMA is a known psychoactive illicit drug that is most often used recreationally ('ecstasy'/'molly'). It is also thought to help communication and connection between therapists and patients during psychotherapy for mental health disorders (Nichols, 1986). MDMA has recently been investigated for the treatment of PTSD (e.g., Mithoefer et al., 2010, 2018), alcohol use disorder (Sessa et al., 2019), and social anxiety in autistic adults (Danforth et al., 2018). These studies suggest that when administered under medical supervision, MDMA is safe and may be effective in the treatment of chronic PTSD, AUD and social anxiety in autistic adults.

Supplementary Table 1. Dunn-Bonferroni post-hoc test results for Gender and Sexual Orientation by Willingness

Post-hoc results (Dunn-Bonferroni)	Sample 1-Sample 2	z	P
Gender			
Willingness Psilocybin trial	Female-Other	-1.189	.703
	Female-Male	-4.094	<.000
	Other-Male	0.212	1.000
Willingness MDMA trial	Female-Male	-1.189	<.000
	Female-Other	-4.094	.115
	Male-Other	0.212	1.000
Willingness Psilocybin once approved	Female-Male	-3.36	.002
	Female-Other	-1.335	.546
	Male-Other	-0.167	1.000
Willingness MDMA once approved	Female-Male	-3.414	.002
	Female-Other	-1.748	.241
	Male-Other	-0.599	<.000
Post-hoc results (Dunn-Bonferroni)	Sample 1-Sample 2	z	P
Sexual Orientation			
Willingness Psilocybin trial	Heterosexual-Other	-1.063	1.000
	Heterosexual-Unsure	-1.419	1.000
	Heterosexual-Bisexual	3.358	.008
	Heterosexual-Gay or Lesbian	2.491	.127
	Other-Unsure	0.223	1.000
	Other-Bisexual	0.645	1.000
	Other-Gay or Lesbian	1.041	1.000

(Continued)

Supplementary Table 1. Dunn-Bonferroni post-hoc test results for Gender and Sexual Orientation by Willingness
(Continued)

Post-hoc results (Dunn-Bonferroni)	Sample 1-Sample 2	z	P
	Unsure-Bisexual	0.380	1.000
	Unsure-Gay or Lesbian	0.840	1.000
	Bisexual-Gay or Lesbian	-0.683	1.000
Willingness MDMA trial	Heterosexual-Unsure	-0.079	1.000
	Heterosexual-Other	-0.672	1.000
	Heterosexual-Gay or Lesbian	1.411	1.000
	Heterosexual-Bisexual	3.578	.003
	Unsure-Other	-0.450	1.000
	Unsure-Gay or Lesbian	0.962	1.000
	Unsure-Bisexual	1.703	.886
	Other-Gay or Lesbian	0.473	1.000
	Other-Bisexual	1.049	1.000
	Gay or Lesbian-Bisexual	0.502	1.000
Willingness Psilocybin once approved	Heterosexual-Other	-1.410	1.000
	Heterosexual-Unsure	-1.765	.775
	Heterosexual-Bisexual	3.533	.004
	Heterosexual-Gay or Lesbian	2.279	.227
	Other-Unsure	0.186	1.000
	Other-Bisexual	0.387	1.000
	Other-Gay or Lesbian	0.663	1.000
	Unsure-Bisexual	0.165	1.000
	Unsure-Gay or Lesbian	0.500	1.000
	Bisexual-Gay or Lesbian	-0.462	1.000
Willingness MDMA once approved	Heterosexual-Unsure	-0.420	1.000
	Heterosexual-Other	-0.854	1.000
	Heterosexual-Bisexual	3.663	.002
	Heterosexual-Gay or Lesbian	2.266	.234
	Unsure-Other	-0.347	1.000
	Unsure-Bisexual	1.394	1.000
	Unsure-Gay or Lesbian	1.387	1.000
	Other-Bisexual	0.879	1.000
	Other-Gay or Lesbian	0.999	1.000
	Bisexual-Gay or Lesbian	-0.403	1.000