Let's Go Out For A Day Trip? Perspectives of Psychedelics (Ab)Users on the Safety of Acid (LSD) Tripping in Public Places

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Abstract

Background: *Novel psychoactive substances* (NPS) represent a unique phenomenon of the 21st century. These substances are of critical consequences on public health and national economies. Hallucinogens, also known as psychedelics and entheogens, represent one category of NPS. Numerous private groups do exist on the online drug fora and the online social platforms including *Facebook*. Psychedelic tripping or *acid trip* (using LSD) depicts one of the controversial life experiences; tripping can be indoor or in public.

Materials and Methods: This study is observational and cross-sectional; it was based on an *Internet Snapshot* taken for a private group on *Facebook*; the group is dedicated for (ab)users of psychedelic substances. The snapshot was captured for a thread in relation to a critical question which was posted on the safety of day tripping using acid (LSD) in public places. Individual accounts of commenters (n=172) were analyzed in relation to demographics, length and themes of comments, and the attitude towards public tripping. This study is the first of its kind; it aims to conclude with an inference whether outdoor tripping is favourable by psychedelics users or not.

Results: A total of 137 psychedelic users' comments were analyzed out of 172 (79.7%); males contributed more (n=111, 81%); the mean age was 32.14 years; most were Caucasian males from the US. (Ab)users were mainly geo-mapped into the US (85.4%), Canada (5.1%), and UK (3.7%). Those who had a positive attitude in relation to day tripping public places accounted for three-quarters (75.2%). Ethnicities and nationalities had no differential effect on a psychedelic user's age nor his (her) enthusiasm for day tripping. However, (ab)users from the US were found to be more enthused. Further, there was a significant difference in relation to the attitude in between individuals with; positive attitude and negative attitude (*p-value*<0.001).

Conclusion: Psychedelics (ab)users appeared to be in favour of having an *acid trip* in public; those were mainly geographically mapped into the developed countries, while the contribution of the developing countries was minimal. This study can be copied to populations of interest of different backgrounds, cultures, and ethnicities in an aim to infer changes in trends and preferences of individual users across time and place.

Keywords: Psychopathology, Substance-Related Disorders, addictive behaviour, Novel Psychoactive Substances, psychedelics, Hallucinogens, entheogens, LSD, MDMA, NBOMe, βk-2C-B, psychedelic trip, acid trip

1. Background

During the past two decades, designer drugs including psychedelics, represented a significant evolving threat to the public health and nations' economy; the phenomenon and its electronic commerce (e-commerce) has been escalating at a logarithmic pace, paralleled only by the explosive collateral evolution within the discipline of *information and communication technologies* (Al-Imam et al., 2016; Al-Imam et al., 2017; Brew, 2016; Dargan & Wood, 2013). The technologic advancement in the developed countries made it possible for the e-commerce and the collateral e-phenomena on both divisions of the web to flourish to unprecedented levels beyond the control of legal authorities and regulating bodies. NPS and psychedelics were found to be more diffused in the developed world (Al-Imam, 2017a; Al-Imam, 2017b; Al-Imam et al., 2017; Bigdeli et al., 2013). Psychedelic tripping

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represent one of the most controversial experiences one may have in his (her) life time; there are numerous subjective reports of "moments of enlightenment" while having an acid trip or other psychedelics' trip (Bluelight.org, 2016; Drugs-forum.com, 2016; Erowid.org, 2016; Officialbenzofury.net, 2016; Reddit.com, 2016). Several media websites mentioned that famous artists and scientist took psychedelic substances during their life time, for instance, Leonardo da Vinci (1452-1519) who is considered as the epitome renaissance man; it has been reported that psychedelic substances can elevate the consciousness and the cognitive functions of a human being; notable figures who experienced the use of psychedelics include Michael Angelo, Charles Darwin, and Sigmond Freud (Famousscientists.org, 2017; Shroomery.org, 2017).

In 2014, Best and colleagues studied online platforms including the social media in connection with the adolescent well-being; the systematic review was based on assessing forty-three prior original studies that were dedicated for the evaluating the harmful and beneficial effects of these virtual media and platforms. It was concluded that these platforms and technologies could have a detrimental effect on health well-being and yet can also be exploited for health promotion and social care purposes; it is indeed a double-edged blade (Best et al., 2014). Few research attempts were dedicated to studying the psychedelics in the developing world as in the case of the Middle East, Latin and Central America, Africa, and Asia (Dargan and Wood, 2013). Prior attempts of studies in non-virtual (online) populations date back to around the end of the last decade (Al-Hemiary et al., 2010; Dargan and Wood, 2013). In this study, there will be an attempt to provide geo-mapping of the diffusion and (ab)use of psychedelics in connection with answering a primary research question whether (or not) psychedelics users have a preference for day tripping, using LSD, in public places (outdoor). Other research questions are in context to the existence of significant differences among psychedelics users based on; gender, ethnicities, nationality, attitude and enthusiasm towards day tripping in public places. This study is an observational cross-sectional analysis; it represents a novel attempt to analyse a selected virtual populations on the renowned online social platform known as *Facebook*.

2. Materials and Methods

2.1 Population, Inclusion Criteria, and Data Collection

This study is observational and cross-sectional; it relies on a hybrid analysis based on qualitative and quantitative tools; it was based on an *internet snapshot*, which is a technique of taking a "screenshot" at a specific moment of time for data available on a particular website. The internet snapshot was taken on the 23rd and the 24th of August 2017 for a private group (*Psychedelia Heaven*) of a population of psychedelics users existing on the online social platform known as *Facebook*. The snapshot was taken for a number of comments by psychedelics (ab)users of multiple backgrounds, age, gender, ethnicity, and nationality (Facebook.com, 2017); the comments were in correspondence to a thread which had a question that was posted by another member. The question was: *Who has experience with day tripping in public places on LSD. Any tips for the first time*?

Other members of the group actively participated in replying to the query; the total number of comments reached 172. Comments were either supporting (pro-tripping), against tripping (anti-tripping) or had a neutral attitude towards day tripping using *acid* (LSD) in public places. The themes of commentaries were evaluated using thematic (psycho)analysis (De Ganck et al., 2015; Pérez et al., 2015). Hence, this study aims to extrapolate an evidence by relying on the analysis of the personal accounts and opinions of psychedelic (ab)users. The research questions to be answered via this analysis; are the psychedelics users favouring tripping in outdoor venues? Are there any precautions and recommendations? Should certain factors interfere? including; timing and place of the psychedelic trip (1), the availability of a companion (trip sitter) (2), type of substance (or substances) used for the psychedelic journey other than LSD (3), the exploitation of social intelligence for interacting with other people while tripping outdoor (4), the avoidance of certain venues and particular objects while tripping (5), the importance of hydration (6), the type of drinks and diet to be taken while tripping (7), the use of antidotes and damping substances to neutralize or abort the trip (8), and the preference of using sunglasses, earplugs, music, and particular clothing (9).

2.2 Data Entry and Analysis

There was tabulation of demographic variables including age, gender, ethnicity, and nationality (1); attitude and tendency (No, Neutral, Yes) towards psychedelics tripping in public (2), density of speech expressed as the number of words per comment (WPC) (3), and the type and number of recommendations in connection with tripping in public (4). Further, a quantitive score, the *enthusiasm index*, was calculated based on speech density, the number of recommendations, and the attitude towards having an outdoor trip. This score (index) was later used for the purpose of statistical inference via comparing the gender, age, ethnicities, nationalities versus the tendencies towards psychedelics (or acid) tripping in public.

The level-of-evidence for this study is estimated to be of level-3 in correspondence with the categorizations system implied by the *Oxford Center for Evidence Based Medicine* (University of Oxford, 2017). Further, a systematic review of the literature was carried out on medical and paramedical databases of literature including; PubMed/Medline, the Cochrane Library, Embase, EBSCO, Google Trends, ResearchGate, Academia, Google Trends, Sci-Hub, in addition to the grey literature databases including social media, media networks, and online drug fora including *Erowid*, *Bluelight*, *Reddit*, and *Drugs-Forum* (Bluelight.org, 2016; Drugs-forum.com, 2016; Erowid.org, 2016; Officialbenzofury.net, 2016; Reddit.com, 2016). The statistical analyses were both descriptive and inferential; these were carried out via *Microsoft Excel 2016* and the *Statistical Package for Social Sciences* (SPSS v.20). The implemented statistical tests included *Student's t-test*, *Analysis of Variance and Covariance* (ANOVA), *Chi-Square test*, and *Linear Regression* models; an alpha value of 0.05 and a 95% confidence interval (95% CI) were adopted as the cut-off margin for the purpose of statistical significance.

2.3 Ethical Aspects

This study has been ethically approved by the Institute Review Board (IRB) of the College of Medicine-University of Baghdad under the authority of the IRB meeting number 7 on the 20th of December 2016

3. Results and Discussion

A total of 137 psychedelic users' comments were analyzed out of 172 (79.7%); duplicate and irrelevant comments were excluded. Males contributed more (n=111, 81%) than females (n=26, 19%); the age was ranging from 17 to 68 years old with an average of 32.14 (+/- 9.75) years; the most frequent age (mode) was of those individuals at age 35 years. (Ab)users were from; the US (n=89, 85.4%), Canada (7, 5.1%), UK (5, 3.7%), Germany (1, 0.73%), Norway (1, 0.73%), Mexico (1, 0.73%), India (1, 0.73%), Bangladesh (1, 0.73%), Sri Lanka (1, 0.73%), Thailand (1, 0.73%), and Kenya (1, 0.73%). Four ethnicities were observed; Caucasian (109, 79.6%), Latin (18, 13.1%), Asian (7, 5.1%), and Black (3, 2.2%). Most of the observed users were single (88, 64.2%), while others were in a relationship (49, 35.8%). Other parameters were calculated to have a mean (+/- standard deviation); speech density 19.96 (+/- 21.60), number of recommendations 0.99 (+/- 0.87), and enthusiasm index 28.64 (+/- 23.30). The number of recommendations per user was ranging from one to four; recommendations were in relation to; the social attitude of a psychedelic user while tripping outdoor, security measures, timing and place of the trip, dose of the substance to be used, substance(s) of preference, the presence of companion (trip sitter), the use of sunglasses/ear buds and music, clothing, hydration, preferred diet and drinks, the use of detoxifying substances (milk and dairy products were suggested by some users), damping of the trip with an antagonist (Xanax, valium, and phenothiazines), in addition to the avoidance of certain places and objects (roller coasters, shopping malls, hypermarkets, and staring into mirrors or other people faces).

Statistical outliers were also detected (Figure 1); these were of relevance to age (59 years and older), speech density (64 words per comment and more), and enthusiasm index (score of 82 and higher); the vast majority of outliers belonged to Caucasian individuals from the US and the UK. The age of psychedelic (ab)users appear to follow a *bimodal peak* of distribution (Figure 1); most individuals were either in their mid-20s (1st peak) or mid-30s (2nd peak); people in the 3rd and 4th decades of life accounted for 79.56% of the entire studied population. These findings, in relation to age, were found to be in line with relevant prior studies (Al-Diwan et al., 2015; Al-Hemiary et al., 2016; Al-Hemiary et al., 2016; Al-Imam, 2017a).

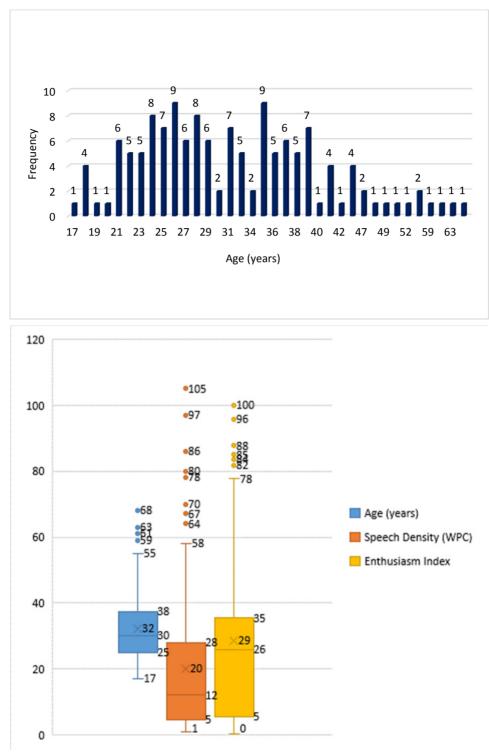


Figure 1. Frequency Distribution of Age (above) and Boxplot Presentation of Age, Speech Density, and Enthusiasm Index (below)

Those who had a positive attitude (agree) in relation to day tripping public places (Figure 2 and 3) were 103 individuals (75.2%); most were geo-mapped to the US (n=89), Canada (5), and UK (4). Those who had a negative attitude (disagree) in relation to day tripping public places were 19 individuals (13.9%); they were geo-mapped into the US (n=17), Canada (1), and Mexico (1). On the other hand, those who had a neutral attitude (equivocal) in relation to day tripping public places were 15 individuals (11%); they were geo-mapped into the US (n=11), UK (1) Canada (1), Germany (1), and Bangladesh (1). The contribution of males and females was proportional regardless

the attitude of psychedelic users in relation to outdoor tripping (Table 1, Figure 3); each of Chi-square test (*p-value*=0.653) and the independent t-test (p=0.646) confirmed the absence of significant difference in between males and females in relation to age, attitude, speech density, and enthusiasm index; males' average age was 32.33 years while being 31.31 years in case of females.

Table 1. Descriptive and Inferential Statistics: Gender, Ethnicity, and Nationality.

Row Labels	Count (Yes)	Cumulative Density (WPC)	Speech	Collective Recommendations	Cumulative Enthusiasm Index
Female	21%	24%		21%	21%
Male	79%	76%		79%	79%
Grand Total	100%	100%		100%	100%

t-test (ethnicity)	Age	Enthusiasm Index
Caucasian vs Latin	0.072	0.567
Caucasian vs Asian	0.305	0.737
Caucasian vs Black	0.653	0.713
Latin vs Asian	0.998	0.532
Latin vs Black	0.744	0.845
Asian vs Black	0.754	0.610

Ethnicity	Age		Enthusiasm Index	
	Mean	St. Dev.	Mean	St. Dev.
Caucasian	33.07	9.72	28.24	23.68
Latin	28.28	10.01	31.46	21.47
Asian	28.29	8.04	24.73	23.99
Black	30.33	9.02	35.15	28.08

Figure 2. The Frequency of Nationality versus Ethnicity for the Different Attitudes towards Public Tripping: Yes (above), No (middle), and Neutral (below)

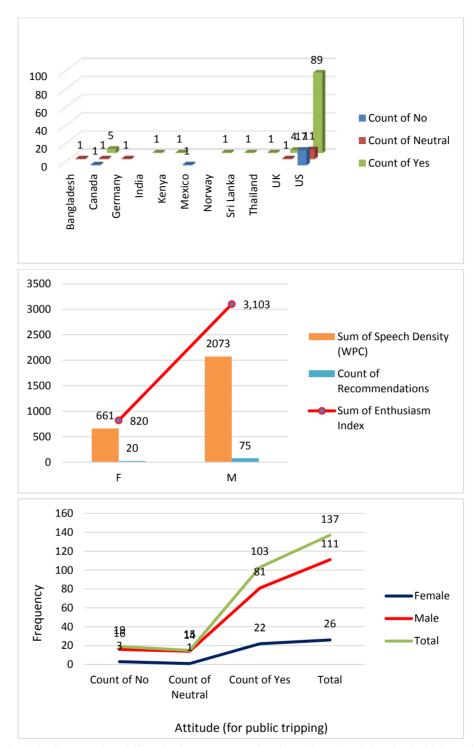
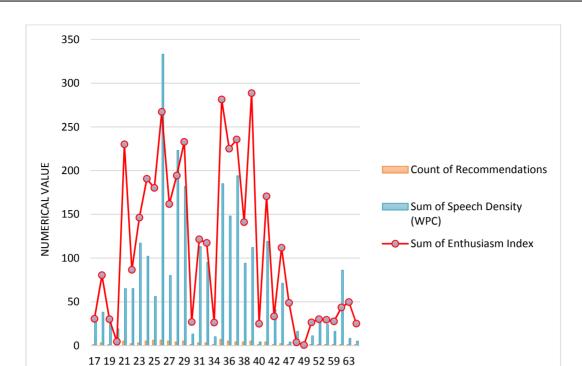


Figure 3. Attitude towards Public Tripping versus Nationality (above) and Gender (middle and below)

Based on the visualized data from the graphical illustrations (Figure 4), it was assumed that there is some positive correlation in between enthusiasm index, the density of speech, and the number of recommendations per a given psychedelic (ab)user. Accordingly, a hypothesis was tested via linear regression (Figure 5), and it was confirmed that there was a positive linear correlation between the; speech density and count of recommendations (R^2 score= 0.551), density of speech and enthusiasm index (R^2 =0.687), and the number of recommendations and enthusiasm index (R^2 =0.896). It appears that the enthusiasm index is more in correlation with the number of recommendations per an individual; the more he (she) provides recommendations, the stronger his (her) attitude towards day tripping, using LSD, in public places.



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Figure 4. Combo Plot: Enthusiasm Index, Speech Density, and Count of Recommendations

AGE (YEARS)

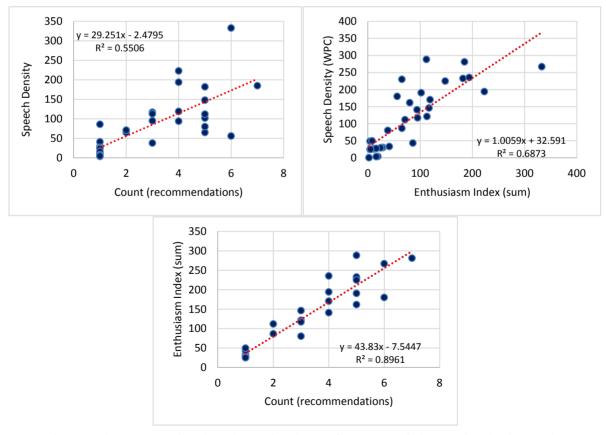


Figure 5. Linear Regression: Speech Density, Count of Recommendations, and Enthusiasm Index

Additional statistical inferences (Table 1) were carried out. In relation to ethnicities, there were no significant difference neither in age nor in the enthusiasm index in between; Caucasian and Latin (*p-value*=0.072, *p-value*=0.567), Caucasian and Asian (0.305, 0.737), Caucasian and Black (0.653, 0.713), Latin and Asian (0.998, 0.532), Latin and Black (0.744, 0.845), and Asian versus Black (0.754, 0.610). Similarly, nationalities of the three main contributing countries (US, Canada, and UK) were not found to be of a significant effect neither on the age nor on the attitude (enthusiasm index), with an exception for a significant difference in relation to the enthusiasm index in between individuals from the US and Canada (29.41 +/- 22.80 versus 19.98 +/- 12.09, *p-value*=0.094). Accordingly, it can be inferred that ethnicities and nationalities had no effect on a psychedelic user's age nor his (her) enthusiasm for day tripping in public places. However, (ab)users from the US appeared to be more enthused (than Canadians) for having a day trip in public place.

Finally, in relation to the attitude towards outdoor tripping (Table 2), it was found that individuals who had no problem with day tripping in public places were significantly more than; people who were afraid (disagreed) to day trip in public (*p-value*<0.001), and individuals who were skeptic (neutral attitude) towards outdoor day tripping (p<0.001). Further, there was no significant difference in age in between those who had a different stance (positive, negative, and neutral) in connection with day tripping in public places. However, there was a significant difference in relation to the enthusiasm index in between; individuals with positive attitude versus negative attitude (34.06 +/-21.66 versus 11.65 +/- 15.35, *p-value*=<0.001), and people with positive attitude versus neutral attitude (34.06 +/-21.66 versus 12.91 +/-26.00, p=0.008). To re-encapsulate, regardless of an individual's attitude toward day tripping in outdoor venues, there was no significant difference in age for psychedelic (ab)users. However, the attitude (expressed as an enthusiasm index) of those who did not mind to trip in public was significantly stronger than other individuals of either negative or neutral attitude. It is to be inferred, that psychedelic users have strong tendencies to have an acid trip during the day in an outdoor environment; the most frequent psychedelic substance of use was LSD (*acid*); other suggested substances included MDMA, NBOMe, and βk-2C-B.

Table 2. Descriptive and Inferential Statistics: Attitude towards Tripping in Public.

t-test (attitude)	Age	Enthusiasm Index
No vs Yes	0.866	0.000
Neutral vs Yes	0.824	0.008
No vs Neutral	0.767	0.870

Attitude	Age		Enthusiasm. Index	
Attitude	Mean	St. Dev.	Mean	St. Dev.
No	31.68	11.03	11.65	15.35
Neutral	32.67	8.14	12.91	26.00
Yes	32.15	9.81	34.06	21.66

	No vs Neutral	No vs Yes	Neutral vs Yes	
t-test (attitude)	0.123	0.000	0.000	
Attitude	No	Neutral	Yes	
Mean	0.14	0.08	0.77	
St. Dev.	0.35	0.27	0.42	

In relation to the personal accounts and comments of psychedelic users, some were interesting to be quoted. Twelve comments are cited here; Start w a low dose let it peak and adjust accordingly i love day trippin (1), Just remember nobody else is seeing what you are (2), Beach!!! (3), Day-tripping is cool but not in public if you are around people keep your mouth shut and your glasses on (4), My sweet spot is 300 ug at the River on the sandbank about a mile away from anybody (5), Do it at a 3 day camping music festival those are my favorite trips lol (6), dont

go in the bathrooms, The toilets talk to you! (7), Lactose neutralizes most hallucinogens including psilocybin. It also neutralizes other mycotoxins. So if you ever get fungal food poisoning drink milk (8), Keep a xanax on standby and enjoy the ride, Sunglasses headphones and a trip sitter (9), Roller coasters are amazing. But I would keep the dose mild because they can be super frightening at higher doses. I usually prefer mdma at amusement parks (10), last time i did bk-2cb in the day (and that's pretty damn mild feeling stuff). 2 people stopped and asked me if i was tripping. made me feel a bit naked because i thought i was just strolling along not waving a flashing sign (11), I wouldn't go into a crowded McDonald's from my experience. Lol. So much noise it just completely confused me. I wasn't sure what was happening for a second (12).

During the last decade and in the region of the Middle East, Al-Hemiary and colleagues have led one of the earliest attempts in the terrain of the Middle East and Iraq to observe and analyse the extent of diffusion, trade, and (ab)use of NPS and psychedelics in non-virtual populations; by 2012, they have concluded that the most commonly used substances were alcohol, cannabis, and prescription-related chemicals; Novel drugs (NPS) started to appear on the *drug scene* as in the case of *amphetamine-type substances* including captagon (fenethylline) and crystal (methamphetamine); other traditional psychoactive substances were also found in abundance including tramadol, Afghan opium, teriac (an opioid), and heroin (Al-Hemiary et al., 2010; Al-Hemiary et al., 2014; Al-Hemiary et al., 2016).

Subsequent research attempts by Al-Imam and colleagues (2016) has confirmed that captagon and other *amphetamine-type substances* were infiltrating the destabilized Middle East following the US invasion of Iraq; captagon was found to be diffused in e-commerce via the deep web within the UAE, Syria, Iraq, and Turkey; these substances were advertised via several e-markets on the darknet, including AlphaBay, Agora, Nucleus, Dream, Valhalla, and Hansa (Al-Imam et al., 2017). Further, Al-Diwan and coworkers had inferred that crowding (high household density) and low social-educational status had some correlation with alcohol intake, *alcohol dependence syndrome* (alcoholism), and substance (ab)use; the peak age for substance (mis)use was found to be 24-35 years; which appears to be in harmony with the key finding from our study (Al-Diwan et al., 2015).

In 2014, Bigdeli and coworkers discovered the existence of fourteen new substances; data were retrieved from 104 websites and virtually-accessed populations. The majority of these substances were either herbal, synthetic, pharmaceutical, or hybrid chemicals that were advertised via the e-commerce on both divisions of the web, surface and deep (Bigdeli et al., 2014).

Very recently (2017), Joh and colleagues have conducted cross-sectional analyses of a non-virtual population of Korean University students to assess the health status and its potential promotion in young adults following a three-days university-wide health promotion program; the program was aiming at enhancing health awareness via promoting a healthy behaviour, balanced and healthy nutrition, avoidance of substance use and misuse, and a non-sedentary lifestyle (Joh et al., 2017). An earlier analogous attempt date back to 2012, during which Dargan and Wood have studied the recreational drug (mis)use, including those of traditional and novel substances in the Asia Pacific region; the study assessed *United Nations Office on Drugs and Crime* (UNODC) *programmes* of relevance; the researchers have concluded that there are still gaps for potential enhancement of these programs to combat the ever growing threats of the phenomenon of NPS and psychedelics (Dargan and Wood, 2012).

4. Conclusion

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Psychedelics' (ab)users appeared to be in favour of having an *acid trip* in public; those were mainly geographically mapped into the US, Canada, UK, and few other European countries; Caucasian males from the US contributed the most within the observed population. The contribution of the developing countries was minimal. This study is the first of its kind in literature in relation to the preference of psychedelic users for day tripping in outdoor venues; future studies should adopt a similar perspective of qualitative and quantitative analyses based on inferential models of data science and hypothesis testing. Populations of different nationality, cultural, and ethnic backgrounds should be studied, for instance, comparing those from the developed world versus developing countries.

The contribution of the developing countries was negligible and limited to very few Asian and African nations in addition to Mexico, while the input of the Middle East and the North of Africa was completely absent. This study may also have limitations including; the particular study of a virtually-placed population of users on the surface web, relatively small sample size, and potential biases in the interpretation of personal accounts and commentaries of psychedelic users. Further, the observed population was existing on a single online platform rather than multiple platforms. Perhaps, future studies could detect a shift in trends for geo-mapping or a change in (ab)users' attitude and tendencies towards tripping in public places or in relation to the type of (ab)used hallucinogens for the purpose of tripping. Finally, it is recommended that researchers should pay particular attention to compare virtually-placed

and non-virtually-placed populations psychedelic users.

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Competing Interests Statement

The author has nothing to be declared.

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