

Motives for using new psychoactive substances in three groups of Polish users: nightlife, marginalised and active on the Internet

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Summary

Aim. The aim of this article is to present the motives for using new psychoactive substances (NPS) among users in Poland and to evaluate the relationships between motives and consumption of different types of NPS.

Methods. The fieldwork was conducted in four locations: in Warsaw, Krakow, Poznan, and Tricity. The study involved a total of 596 users of new psychoactive substances. Among them were: nightlife users, using NPS recreationally ($N = 172$), socially marginalised users ($N = 86$) and users active on the internet ($N = 338$). The technique used in the study was a self-filled questionnaire.

Results. As assessed by all respondents, enhancement of mood was the most frequently indicated motive for using NPS. Among nightlife users, the NPS were most often used for the purpose of having more fun at parties. Among the marginalised users, the most common motive for using the new psychoactive substances was the desire to get intoxicated, which is a motive belonging to the group of motives related to enhancement. In the group of people active on the Internet, the most common motives for using these substances were those related to expansion.

Conclusions. Identifying motives for using new psychoactive substances may contribute to reducing the use of NPS. The recreational and marginalised users have different motives for using substances. The same conclusion applies to the use of the individual NPS. The motives of using them vary. Thus, preventive, educational and therapeutic programs should be judiciously adapted to the needs of the users as well as to the kind of substances they use.

Key words: new psychoactive substances, motives of use, health

Introduction

When new psychoactive substances (NPS) entered the drug scene in Poland, it has significantly influenced the market of drugs [1–5]. The popularity of new psychoactive substances may result from their relatively widespread availability (e.g., through online purchase), relatively low price, safety profile or their legal status, which places them at the borderline between legal and illegal substances [6]. In addition, NPS have become extremely popular when the availability and quality of the traditional drugs such as cocaine or heroin has decreased, attracting users of these substances to NPS [7].

There are few studies showing the prevalence of the new psychoactive substances use in the general population [8]. Estimates from the European countries show that the prevalence of NPS use during the last 12 months before the study in the group of people aged 15–34 ranged from 0.1% in Norway to 3.2% in the Netherlands [9]. In Poland the prevalence of NPS use was at the level of 2.2% in the case of use at any time in life and 0.5% in the last 12 months before the study [10–12]. Higher percentages of users are observed in specific subpopulations of drug users. Australian studies among stimulant users showed high prevalence of mephedrone use (between 19 and 23%) throughout life. Every tenth respondent used methylone and every twentieth used MDPV [13]. In the American study conducted among the nightlife users, it was observed that 8.2% of club goers use synthetic cannabinoids. On the other hand, in the Netherlands, 19% of club goers have had some experiences with the use of 2C-B, 15% of 4-FA and 9% of mephedrone [8, 14]. In Scotland, 59% of the socially marginalised users have used NPS throughout their lives [15].

Understanding the reasons or motives why people engage in use of new psychoactive substances is essential to limiting prevalence of use and the harm that their use can cause. As with other legal substances, the psychological motives for using NPS can tip the scale in the final decision, and therefore can be determinants of use. There is little research that identifies motives of using new psychoactive substances. Therefore, there is a need for in-depth studies to understand the reasons [16, 17]. The international study conducted so far shows that the main motives for using new psychoactive substances are: curiosity, the desire to feel pleasure, and to improve social relations. These motives are similar to those expressed in relation to traditional drugs [18, 19]. Studies that focused on the circumstances of the use of new psychoactive substances show that the legal status that makes use of them permissible, easy availability, low price, as well as perceived high purity of the ingredients may play an important role in making decisions on the use of these substances [20, 21]. Studies on the motives of using NPS in Poland have shown that users use them mainly for the purpose of creating social bonds and becoming more easy-going, in order to intoxicate themselves, and to relax. In the opinion of some respondents, the NSPs are used to “keep up” with reality,

reduce anxiety or the level of stress. Hallucinogens have been used to alter the perception of reality. Their legal status and the assessment of addictive properties were not the motives for which new psychoactive substances were used by the Polish users [22].

The aim of this article is to present the motives for using new psychoactive substances (NPS) among users in Poland and to evaluate the relationships between motives and consumption of different types of NPS.

Material and methods

The research material was collected as part of the international research project NPS-T (*New Psychoactive Substances: transnational project on different user groups, user characteristics, extent and patterns of use, market dynamics, and best practices in prevention*), conducted in 6 European countries: the Netherlands, Ireland, Germany, Portugal, Hungary, and Poland. The research was financed by the European Commission (DG HOME) and the Polish Ministry of Science and Higher Education. Detailed research methodology, discussion of the challenges that appeared during the implementation of the project – mainly field study, are presented in the paper of Korf et al. [17]. A description of the research conducted in Poland can be found in the article of Wiczorek et al. [23]. The results presented in this paper come from fieldwork conducted in Poland.

Sample selection

The fieldwork was conducted from June to August 2016 in four locations: in Warsaw, Krakow, Poznan, and Tricity. Experienced streetworkers and partyworkers were involved in the study, which guaranteed that reliable data was gathered. A total of 596 users of new psychoactive substances participated in the study. That included the nightlife users taking NPS for recreation ($N = 172$), marginalised users ($N = 86$) and users active on the Internet ($N = 338$).

The criteria for inclusion to the study were common for all respondents: (1) using NPS at least once during the last 12 months before the study; (2) living in the country participating in the project (in this case – in Poland); (3) 18 or more years of age.

The nightlife users were recruited during events in venues, at music festivals, etc. or by using the snowball method, according to which one respondent indicates other potential respondents. Those people used the substances recreationally. The respondents completed the questionnaire themselves with the assistance of the interviewer, whose task was to ensure that they filled the questionnaire out correctly. Socially marginalised users were recruited on the street or through care, treatment and social welfare facilities. Accordingly, in this case, streetworkers utilised the snowball method of recruiting respondents. The marginalised users were defined as problem users of

the psychoactive substances. Correspondingly to the group of the nightlife users, the marginalised users filled in the questionnaire themselves, assisted by the interviewer. The users active on the Internet were recruited using online messaging systems, social networking sites and the internet fora dedicated to the exchange of knowledge about drugs. These participants completed an online questionnaire only. The questionnaire had been posted on the secure website of the NPS-T project.

Sociodemographic characteristics of the NPS users

Men predominated in all studied groups (Table 1). The highest percentage of women was among the nightlife users using NPS recreationally (33.3%), while the lowest was among the users active on the internet (12.7%). The mean age of the nightlife users, who used NPS recreationally, was 24.8 years and of the marginalised users was 33.2 years. The users active on the internet were the youngest fraction of the respondents with mean age of 23.4 years. The vast majority of the nightlife users and the marginalised people lived in large cities with more than 100,000 inhabitants. Whereas in the group of people active on the Internet, over 35% of users lived in small towns, not exceeding 50,000 inhabitants.

The respondents' housing situation differed in individual groups. About half of the nightlife users (48.8%) and one fourth (26.2%) of the group of people active on the Internet lived in rented apartments. Every fourth (26.2%) recreational user, i.e., the nightlife user, as well as and every second (56.6%) user active on the Internet lived with their parents. However, 40% of marginalised respondents lived in residential care centres or in shelters for the homeless people.

Over half of the recreational and the marginalised users (50.9% and 53%, respectively), as well as two thirds (60.2%) of those active on the Internet had secondary education. The highest percentage of respondents with higher education was found among the nightlife users (41%), slightly lower among people active on the Internet (25.2%). The level of education was observed to be the lowest among the socially marginalised people, in which group less than 4% of respondents had higher education. In this group, the largest number of people had primary education only (43.4%).

The professional situation of the nightlife users and the users active on the Internet was similar – about one third of respondents from each group studied or were employed full-time. On the other hand, among the marginalised users, over 80% received financial support from the social security, disability or unemployment benefits or were out of work without any benefits.

Table 1. Sociodemographic characteristics of the NPS users

Variable		Nightlife (N = 172)		Marginalised (N = 86)		Active on the internet (N = 338)		Statistical significance (X ²)
		%	N	%	N	%	N	
Sex	Male	66.7%	114	79.1%	68	87.3%	290	0.000
	Female	33.3%	57	20.9%	18	12.7%	42	
Age	18–24 years	56.1%	96	25.6%	22	70.1%	237	0.000
	25–34 years	39.8%	68	29.1%	25	26.6%	90	
	35 or more	4.1%	7	35.4%	39	3.3%	11	
Place of residence	Small town (up to 50,000 inhabitants)	12.3%	21	14.0%	12	35.5%	116	0.000
	Medium sized town (50,000–100,000 inhabitants)	13.5%	23	18.6%	16	15.3%	50	
	Large city (more than 100,000 inhabitants)	74.3%	127	67.4%	58	49.2%	161	
Accommodation	Own apartment	20.3%	35	6.8%	5	16.0%	52	0.000
	Rented apartment or room	48.8%	84	11%	8	26.2%	85	
	With parents/family	26.2%	45	23.2%	17	56.6%	184	
	Residential care centre	1.7%	3	15.1%	11	0.0%	0	
	Homeless shelter/ hostel	0.0%	0	31.5%	23	0.0%	0	
	Other	2.9%	5	12.3%	9	1.2%	4	
Education	None or primary	8.2%	14	43.4%	36	14.7%	49	0.000
	Secondary	50.9%	87	53.0%	44	60.2%	201	
	Higher	41%	70	3.6%	3	25.2%	84	
Employment situation	Student (school/ university)	31.0%	53	3.6%	3	33.3%	111	0.000
	Full-time employment	36.8%	63	3.6%	3	30.9%	103	
	Part-time employment	18.7%	32	8.4%	7	13.2%	44	
	Self-employed	8.2%	14	1.2%	1	7.8%	26	
	Disability pension/social benefits	0.6%	1	30.1%	25	1.8%	6	
	Unemployed	4.7%	8	53.0%	44	11.4%	38	
	Other	0.0%	0	0.0%	0	1.5%	5	

Research tools

The survey questionnaire was originally prepared in English and translated into national languages. A detailed description of the questionnaire can be found in the article of Wieczorek et al. [23]. In this article, we only provide data from the section on the motives for using new psychoactive substances and the section on substance use.

The question of the motives for using NPS was constructed using the *Marijuana Motives Measure* [24, 25]. For the purposes of this study, 6 items were added addressing the issue of the motivation to use NPS. A five-point scale was used for answers: “almost never/never”, “sometimes”, “half of the time”, “very often”, “almost always/always”. In total, the question about motives contained 30 variables divided into categories. The first category is enhancement of well-being, strengthening or betterment, e.g., enhancing positive effects of the substance on the user, intensifying the experience resulting from the use of the substance. The following statements were included: “because it gives me a positive feeling”, “because I like that feeling”, “because it is fun”, “to get high”, “because it’s exciting”.

The second category was defined as social contacts, when the use of the substance is accompanied by greater sociability and the desire to experience social interactions. Within this dimension, the following suggestions were made: “because it helps me enjoy a party”, “because it makes social gatherings more fun”, “to be more sociable”, “because it improves parties and celebrations”, “because I feel more confident”.

Another category of motives for using the psychoactive substances is conformity, e.g., the desire to avoid being rejected by peers. Three statements belong to this category: “to be liked”, “to feel better in the group”, and “not to feel left out”.

The fourth category relates to coping with negative states or difficult emotions. Among the statements describing this dimension were: “to forget about my worries”, “to forget about my problems”, “because it helps me”, “when I feel depressed or nervous”, and “to cheer up when I am in a bad mood”.

The fifth category of motives is expansion, which referred to the potential of a substance to expand users’ knowledge about themselves and own functioning. Here are the statements: “to expand my awareness”, “to understand things differently”, “to be more open to experience”, “to know myself better”, and “because it helps me to be more creative and original”.

The last category of the scale was routine, e.g., substance use out of boredom. There were motives such as using substances “out of boredom” and “out of the habit”.

Additional statements that completed the scale for the sole purpose of this study related to such motives as: “low quality of traditional drugs”, “price”, alleged legality”, “expectation of different or new experiences about the effects of substance use”, “non-detectability”, and “poor availability of other (traditional) drugs”.

The questions about prevalence of NPS use comprised inquiry on herbal blends (e.g., “Spice”), synthetic cannabinoids (in pure form), stimulants sold under trade names (“bath salts”), stimulants/empathogens/nootropics in pure form (e.g., Mephedrone, MDPV, alpha-PVP), psychedelics (e.g., NBOMe-x; 2C-x), dissociatives (e.g., methoxetamine – MXE), and other NPS. The four-point scale of responses was implemented: “Never”, “Yes, but not in the last 12 months”, “Yes, in the last 12 months but not in the last 30 days”, “Yes, in the last 30 days”.

The questionnaire was prepared in a paper version to be completed face to face and in an electronic version.

Data analysis

Data were analysed using SPSS v. 21. Data analysis began with the analysis of the distribution of explanatory variables for a logistic regression model, including socio-demographic characteristics such as gender, age, education, and sample group. In the next step, exploratory factor analysis (EFA) with simple oblimin rotation was conducted in order to aggregate and select the types of motives of use NPS. As a result, six types of factors were obtained with eigenvalues greater than 1 and the total explained variance above the level of 60%. Loadings with a value greater than 0.40 on the structure matrix were considered as factors belonging to each of the types of motives. In the last step, a logistic regression model was created to establish the relationship between the individual groups of motives and sociodemographic variables, and the use of NPS. The evaluation of the influence of the motives was done by adding the factor loadings estimates to the logistic regression model. The outcome variable was the use of a given type of NPS in the last year. The model also included three demographic variables in order to control their impact on the outcome variable: age (expressed in years), education and the group of NPS users.

Ethical issues

The Bioethics Committee at the Institute of Psychiatry and Neurology (Warsaw, Poland) issued a positive opinion on the implementation of the research project (ref. 11/2016). Participation in the study was voluntary. Before completing the questionnaire, the respondents were informed on the issues of anonymity, purposes of the study, estimated time of completing the questionnaire, and the contact details for the researchers. Each respondent had to give oral consent to participate in the study. The statement of consent was then signed by the interviewer in the presence of the interviewed person. This was a prerequisite for participation in the study. The questionnaires were marked only with a number as the personal data were not collected. The respondents did not receive any remuneration for participating in the survey.

Results

Motives for using new psychoactive substances

The most frequently mentioned motives for using new psychoactive substances among the respondents were: “because I like this feeling” (61.3%), “because it gives me a pleasant feeling” (58.5%) and equating use of NPS with having fun (49.1%). All of these motives belong to the group related to the enhancement associated with the use of NPS. Among the least frequently indicated motives by all respondents were such motives as: using NPS to be liked (5.2%) and not to feel left out (5.5%) (motives belong to the group related to conformism). For every tenth (11.9%) respondent it was important that NPS are difficult to detect.

However, the motivation for using new psychoactive substances by respondents from different groups in which the study was conducted, varied. For more than half of the respondents using NPS recreationally, the most important thing was the desire to have fun (61.2%), experience pleasant feelings related to using the discussed substances (55.6%). Also, NPS helped some users to have fun at social gatherings (55.3%), there were used because users liked the feeling after taking the drug (54.1%) and because thanks to NPS they could have more fun at social gatherings (50.0%). For every third respondent from the group of the nightlife users the motive to use was that it was exciting (35.9%), the social gatherings were more fun (34.9%), users experienced intoxication (32.1%), and their expectations of different or new experience related to the use of the discussed substances were fulfilled (30.2%). These motives come from two categories – from the enhancement group and social contacts group, with the exception of the desire to have different or new experiences resulting from using a substance, which belonged to the group of the motives additionally included in the study. The motive least often mentioned (2%) by the nightlife users was low detectability of NPS. Other, quite rarely mentioned motives for using them were: low availability of traditional drugs (2.4%) and fear of being left out by others (3.7%). The alleged legality (4.3%) and low quality of traditional drugs (4.8%) as well as the desire to be liked (4.7%) were also insignificant when using NPS. The motives least frequently mentioned by the respondents from the group of the nightlife users were related to conformism, and the remaining four were the statements additionally included in the questionnaire for the sole purpose of this study.

For over half of the respondents from the group of the marginalised people, the most important motives for using new psychoactive substances were those from the groups of enhancement and coping. The most frequently cited motive for using NPS was use for the sake of pleasure (nearly two-thirds of the respondents mentioned the theme “because I like that feeling”). The use of the new substances because it gives a pleasant feeling was important for 57.7% of the marginalised group. For a slightly

smaller group, over 51% of the respondents, it was important to forget about their worries and to be cheered up when they were in a bad mood. The least significant motivations for using new psychoactive substances by the marginalised people included: to know themselves better (6.3%), because of the price (8.4%) and to be liked (8.9%).

The most important motives for using NPS for people active on the internet were different from the motives that were important to the nightlife users and the marginalised users. The most frequently indicated motive by the respondents in this group was: “because I like this feeling” (64.5%). Slightly fewer respondents used NPS because it gave them a pleasant feeling (60.2%) and for fun (46.3%). These reasons are related to the enhancement group. The least common motives in this group of respondents were not to feel left out (4.3%), to be liked (5.2%) and because they are difficult to detect (13.1%). The first two motives belong to the group associated with conformism.

Table 2. **The motives for using NPS**

Group of motives and motives	Nightlife users (N = 172)		Marginalised users (N = 86)		Active on the internet (N = 338)		Total (N = 596)		Statistical significance of Chi ² test
	N	%	N	%	N	%	N	%	
Because I like the feeling	92	54.1	52	63.4	213	64.5	357	61.3	0.070*
Because it gives me a pleasant feeling	95	55.6	48	57.8	200	60.2	343	58.5	0.594
Because it's fun	104	61.2	29	34.9	152	46.3	285	49.1	0.000*
Because it helps me enjoy a party	94	55.3	17	21.3	124	37.6	235	40.5	0.000*
To be sociable	39	22.9	15	18.5	92	27.8	146	25.1	0.168
Because it makes social gatherings more fun	59	34.9	11	13.9	91	27.5	161	27.8	0.003*
Because it improves parties and celebrations	84	50.0	15	18.5	109	32.9	208	35.9	0.000*
Because I feel more self-confident and sure of myself	30	17.9	19	23.5	62	19.0	111	19.3	0.563
To celebrate a special occasion with friends	38	22.6	16	19.8	83	25.2	137	23.7	0.551
To be liked	8	4.7	7	8.9	30	5.2	30	5.2	0.287
To fit in with the group I like	25	14.7	16	19.8	50	15.2	91	15.7	0.550
To forget my worries	24	14.1	35	44.3	53	16.0	112	19.3	0.000*
To cheer me up. when I am in a bad mood	23	13.4	41	51.3	60	18.1	124	21.3	0.000*
To forget about my problems	24	14.0	41	51.3	54	16.3	119	20.4	0.000*

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Because it helps me when I feel depressed or nervous	28	16.4	35	43.8	70	21.3	133	23.0	0.000*
To know myself better	21	12.4	5	6.3	112	34.0	138	23.9	0.000*
To expand my awareness	24	14.3	9	11.4	131	39.9	164	28.5	0.000*
Because it helps me to be more creative and original	20	12.0	9	11.4	80	24.2	109	19.0	0.001*
To understand things differently	22	13.3	13	16.3	97	29.3	132	22.9	0.000*
To be more open to experiences	35	20.8	13	16.7	95	28.9	143	24.9	0.029*
Out of habit	16	9.7%	32	40.5	55	16.9	103	18.1	0.000*
Out of boredom	19	11.3	33	39.3	73	22.1	125	21.4	0.000*
Alleged legality	7	4.3	15	19.0	63	19.9	85	15.2	0.000*
Poor quality of other (traditional) drugs	8	4.8	27	34.6	74	23.3	109	19.5	0.000*
Price	15	9.1	7	8.4	59	18.1	81	14.1	0.007*
Low detectability	3	1.9	22	27.5	42	13.1	67	11.9	0.000*
Poor availability of other (traditional) drugs	4	2.4	26	31.0	107	32.6	137	23.7	0.000*

Answers: “very often”, “almost always”, “always”

* $p < 0.05$

Types of motives

The results of the factor analysis indicated six groups of motives (Table 3). The first one can be called a group of social-related motives. The second group of motives was related to coping with problems and worries. The third group covered motives related to expansion and openness to new experiences. The fourth group contained motives related to experiences after NPS use. The fifth group – those associated with the features related to the availability and quality of NPS and, in part, to routine. The sixth group was a combination of the celebration and fun motives. We have named the above groups as follows: (1) social motives; (2) coping motives; (3) expansion motives; (4) experiences motives; (5) NPS characteristic motives; (6) party motives. Cronbach’s alpha coefficients for the obtained groups of motives were: (1) 0.821; (2) 0.906; (3) 0.873; (4) 0.831; (5) 0.701; (6) 0.858, respectively, indicating a high internal consistency of the obtained factors.

Table 3. Groups of motives of NPS use. Results of exploratory factor analysis

	1	2	3	4	5	6
To fit in with the group I like	0.775	0.083	0.013	0.029	0.012	0.057
Because I feel more self-confident and sure of myself	0.761	0.097	0.029	0.109	0.001	0.031
To be sociable	0.686	0.035	0.169	-0.003	-0.055	0.126
To be liked	0.421	0.106	-0.046	-0.121	0.197	0.112
To forget about my problems	-0.001	0.937	-0.042	-0.063	0.012	-0.034
To forget my worries	0.064	0.901	-0.024	-0.067	-0.047	-0.068
To cheer me up when I am in a bad mood	0.04	0.815	-0.009	0.086	0.037	-0.051
Because it helps me when I feel depressed or nervous	0.089	0.696	0.013	0.179	0.026	-0.022
To expand my awareness	-0.039	-0.07	0.852	-0.016	-0.009	0.011
To understand things differently	-0.142	0.04	0.839	-0.018	0.107	-0.015
To know myself better	-0.035	-0.062	0.771	0.044	0.06	-0.044
To be more open to experiences	0.158	0.026	0.724	0.016	-0.062	0.058
Because it helps me to be more creative and original	0.258	0.042	0.537	0.055	-0.077	-0.013
Because it gives me a pleasant feeling	0.036	0.102	0.04	0.764	-0.035	0.168
Because I like the feeling	-0.006	0.062	0.09	0.727	0.082	0.145
Poor quality of other (traditional) drugs	0.001	-0.029	-0.067	0.18	0.517	-0.038
Low detectability	0.028	0.041	0.011	-0.156	0.474	0.048
Price	-0.022	0.08	0.005	-0.02	0.469	0.104
Alleged legality	-0.006	-0.006	0.147	0.001	0.469	-0.06
Poor availability of other (traditional) drugs	0.138	-0.094	-0.008	0.069	0.442	-0.186
Out of boredom	-0.061	0.184	0.101	-0.031	0.413	0.119
Out of habit	-0.008	0.288	0.071	0.06	0.401	0.043
Because it helps me enjoy a party	0.025	-0.005	-0.032	0.072	-0.113	0.839
Because it improves parties and celebrations	0.177	-0.04	-0.045	0.047	-0.063	0.797
Because it's fun	-0.061	-0.096	0.085	0.304	0.026	0.643
Because it makes social gatherings more fun	0.373	-0.127	0.022	-0.059	0.036	0.541
To celebrate a special occasion with friends	0.092	-0.016	0.059	0.09	0.137	0.468

The influence of motives on substance use

Results of logistic regression analysis indicate that out of the set of six groups of motives, five have a statistically significant influence on the use of NPS. Only the coping with difficult situations motives were not related to the use of any of the analysed groups of substances. In the case of the remaining groups of motives, their role depends on the type of NPS. Social motives reduced the chances of reaching for psychedelics and dissociatives, while expansion motives significantly increased the chances of using them – almost twice in the case of psychedelics and in the case of dissociatives – by half. Users driven by the motives related to the achievement of experiences less often used herbal blends, but they used synthetic cannabinoids, stimulants and empathogens in pure form more often. The motives related to the characteristic of NPS increased by more than a half the probability of using synthetic cannabinoids. The last group of motives – party motives – were almost identical with the use of stimulants and empathogens in their pure form.

Older users were more likely to use pure stimulants and empathogens, less often they used herbal blends and synthetic cannabinoids. People with primary education used synthetic cannabinoids more than twice as often as people with higher education. The marginalised users used herbal blends as much as four times more often than users active on the Internet, but they used pure stimulants and empathogens much less often. The recreational users also much more often used herbal blends compared to users active on the Internet, but much less frequently used stimulants sold under trade names, as well as psychedelics and dissociatives.

Table 4. NPS types and the motives for using them. Results of logistic regression analysis

	Herbal blends		Synthetic cannabinoids		Stimulants under trade names		Stimulants and empathogens in pure form		Psychodelics		Dissociatives	
	Exp(B)	95% CI	Exp(B)	95% CI	Exp(B)	95% CI	Exp(B)	95% CI	Exp(B)	95% CI	Exp(B)	95% CI
Male	1.266	0.763-2.101	1.152	0.661-2.006	1.353	0.751-2.437	1.010	0.603-1.692	1.118	0.609-2.054	1.113	0.539-2.298
Age	0.939**	0.903-0.977	0.956*	0.915-0.999	1.008	0.969-1.049	1.054**	1.013-1.097	1.010	0.969-1.054	1.010	0.960-1.062
Primary	1.729	0.844-3.54	2.521*	1.181-5.38	1.215	0.551-2.679	1.649	0.767-3.545	0.860	0.387-1.910	1.860	0.749-4.619
Secondary	1.329	0.779-2.269	1.479	0.824-2.657	1.334	0.735-2.422	1.141	0.666-1.952	0.865	0.479-1.562	1.241	0.605-2.544
Higher (ref.)												
Marginalised	4.416***	1.954-9.981	0.861	0.366-2.028	1.567	0.692-3.550	0.283**	0.125-0.644	0.729	0.305-1.738	0.533	0.190-1.496
Nightlife	3.732***	2.199-6.337	1.707	0.983-2.965	0.418**	0.226-0.775	0.713	0.417-1.219	0.244***	0.123-0.484	0.250***	0.107-0.582
Internet (ref.)												
Social m.	0.808	0.613-1.064	0.799	0.601-1.063	1.094	0.826-1.449	1.030	0.767-1.382	0.628**	0.463-0.850	0.600**	0.422-0.852
Coping m.	1.020	0.799-1.301	1.016	0.785-1.315	1.133	0.873-1.469	1.276	0.982-1.657	1.154	0.885-1.506	1.311	0.968-1.777
Expansion m.	0.869	0.680-1.110	1.247	0.973-1.599	0.919	0.703-1.200	1.229	0.948-1.592	1.903***	1.472-2.461	1.466**	1.095-1.963
Experiences m.	0.727*	0.565-0.936	1.318*	1.008-1.725	1.227	0.926-1.625	1.371*	1.066-1.763	1.117	0.845-1.476	1.262	0.904-1.760
NPS characteristic m.	1.346	1.001-1.812	1.537**	1.132-2.086	0.890	0.652-1.215	0.950	0.694-1.302	1.254	0.918-1.712	1.123	0.792-1.594
Party m.	1.075	0.814-1.419	0.907	0.680-1.210	1.278	0.950-1.718	1.481**	1.104-1.986	1.199	0.888-1.621	1.339	0.947-1.892
Nagelkerke R ²	0.172		0.126		0.084		0.158		0.240		0.171	

* p < 0.05; ** p < 0.01; *** p < 0.001

Discussion

Previous research on the subject shows that identification of motives that contribute to occasional or regular substance use would be helpful in explaining the phenomenon of using new psychoactive substances [26]. The aim of this article is to present the motives for using new psychoactive substances among users in Poland and to evaluate the relationships between motives and the use of different types of NPS. The major advantage of this paper is the possibility to identify the motives in three groups of respondents – the nightlife users, the marginalised users and the users active on the Internet. Moreover, our analysis is, in a sense, a pioneering one because so far no such analyzes have been conducted in Poland.

The research by Soussan and Kjellgren [21, 27] shows that the desire to feel pleasure is one of the most common motives for using new psychoactive substances. We obtained similar results in our study. However, in the study of Wiszejko-Wierzbicka et al. [22], it was the social issues that played a major role in the use of new psychoactive substances.

Importantly, different groups of respondents presented dissimilar motives. Among the recreational users, also known as the nightlife users, NPS were most often used for the purpose of having more fun at parties [28]. Additionally, the nightlife users use substances to improve social relationships [21]. Also in our study, motives from the category of social contacts were ranked second in terms of significance in this sample of respondents.

Among the marginalised users, the most common motive for using new psychoactive substances was the desire to get intoxicated. The motives from the group of coping with problems with the help of substances are also favoured. The marginalised people most often belong to the group of regular drug users. New psychoactive substances give them aid to cope with the urge to use drugs, as well as with their various problems. In this group, the motives from the group of social contacts and conformism were rated quite low, as these people are most often socially isolated. Thus, it is understandable that their goal is not to increase their sociability with the help of NPS [8].

In the group of people active on the Internet, who often experimented with various substances, the most common motive for using them was “because I like this feeling”, which belonged to the group related to experiences. This may be related to the specific style of substance use by some of the respondents belonging to this group, who are called psychonauts. These people are mainly interested in observing the effects of psychoactive substances on themselves, including changes in the state of consciousness and perception of reality [7, 22].

The motives for the use of new psychoactive substances additionally included in this study, such as their alleged legality, poor availability and quality of the traditional

drugs, price, and low detectability were of little relevance to users from all of the groups included in the study. The least frequently mentioned motives were: low detectability, price and alleged legality. These results are consistent with those obtained in other studies conducted in Poland, where it was shown that the legality or assessment of addictive properties does not matter for the majority of users [22]. However, our results, differ from the findings from other countries, e.g., studies of Barratt et al. [20] and Soussan and Kjellgren [21, 27], where the alleged legality, price, and high availability of the NSP were presented as important motives for the substance use.

The results of the regression analysis show that the influence of motives is closely related to the type of substance used, while different motives may reduce or increase the probability of using a given type of substance, e.g., social motives reduced the chances of reaching for psychedelics and dissociatives, while motives related to expansion increased the chances of their use. Users driven by party motives and the motives related to achieving specific experiences after NPS use more often used stimulants and empathogens in their pure form, which in some way corresponds to the characteristics of these substances as the substance most often found at various club events and parties. Interestingly, the motives related to the characteristics of NPS increased by more than a half the probability of using synthetic cannabinoids, but did not affect the use of other substances, which may in turn be associated with looking for alternatives to the most commonly used drugs: marijuana and other cannabis products, the possession of which is punishable by criminal penalties. The above findings correspond with the results of research on the motives for using NPS in other countries. In the studies by Karil et al. [29] and Winstock et al. [30], the use of NPS from the group of hallucinogens, such as 25i-NBOMe, 4-AcO-DMT, 2C-B, was associated with the desire to know oneself, exploration and spiritual experience. On the other hand, the use of the substances from the group of synthetic cathinones resulted from the desire to improve self-esteem, sociability, empathy or energy. The use of synthetic cannabinoids, which was associated with the motives of experiences, in other studies was associated with the desire to experience euphoria, greater creativity, relaxation, and well-being [31]. The results of our research do not show such relations.

The presented study has a number of limitations. They were described in the article Wiczorek et al. [23]. One of them is the method of collecting data, which was heterogeneous in individual groups (paper and online questionnaire). Field studies were conducted only in large cities, which resulted in a high percentage of respondents living in towns with more than 100,000 inhabitants. Another limitation that could have influenced the survey results was the presence of the interviewer when filling in the questionnaire. Throughout the study, we did not check the sobriety of the respondents. Additional limitation of the study may be the percolate of respondents to different groups selected in the study. It is possible that marginalised users will appear at the event or will be active on the Internet, but this is unlikely. Likewise, recreational users

avoid places where marginalised users reside. It was also assumed that people active on the Internet in various types of Internet forums will experiment with various substances and share their knowledge with other Internet users.

Conclusions

Identifying motives for using new psychoactive substances may contribute to reducing the use of NPS. New psychoactive substances may cause many negative consequences that are often unexpected for the users themselves. By identifying the motives for using NPS by the recreational and the marginalised users we can prevent and reduce harm by taking it into account when constructing prevention programs or psychological interventions.

Our study showed that the recreational and marginalised users have different motives for using substances. The same conclusion applies to the use of the individual NPS. Thus, preventive, educational and therapeutic programs should be judiciously adapted to the needs of the users as well as to the kind of substances they use.

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Financial support

DG JUSTICE, program: JUST/2014, contract no. HOME/2014/JDRU/AG/DRUG/7077 Ministry of Science and Higher Education, Poland. Research work financed from the funds for science in 2016–2017 granted for the implementation of a co-financed international project.

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