

Club Drug Use in Germany

RENATE SOELLNER

FU Berlin, Evaluation, Qualitätssicherung und Qualitätsmanagement in
Erziehungswissenschaft und Psychologie, Berlin, Germany

In this paper the epidemiology of club drug use in Germany, including the use of 3,4-methylenedioxy-N-methamphetamine (MDMA) known as 'ecstasy' and related substances such as speed, amphetamines, hallucinogens, and cannabis is described on the basis of five different surveys. Two of them are representative household surveys to monitor the licit and illicit drug use behavior of the German population. The third one is a longitudinal study aimed at exploring comorbidity and posited risk and protective factors in adolescents and young adults with specific emphasis on substance use-related disorders. Since ecstasy seemed to be associated with a new music culture of the '90s called "techno," two studies investigating the relationship of using ecstasy and related substances in the techno party scene are additionally presented. The question of the clinical impact of using ecstasy and related substances is raised in terms of substance use-related and mental disorders associated with the use of ecstasy. Finally, the motivation for using and stopping the use of ecstasy is addressed. It is shown that ecstasy has reached the second place (after cannabis) in illegal drug preferences of adolescents and young adults in Germany. Evidence is found that ecstasy use as well as ecstasy use-related disorders such as "abuse" and "dependence" are of a transient, "youth-limited" nature.

Keywords ecstasy; techno; techno party scene; MDMA; substance use-related disorders; mental disorders

Introduction

Synthetic designer drugs became popular among adolescents and young adults in the last decade of the last century. In 1996, the World Health Organization (WHO) acknowledged that 3,4-methylenedioxy-N-methamphetamine (MDMA), known as ecstasy, and similar substances had become part of the youth culture in some countries and that their use is not generally perceived as being dangerous (World Health Organization, 1996).

In 1986, ecstasy was included in the German Narcotics Act. Germany thus followed the recommendations of the United Nations of 1986. Derivates of ecstasy—so-called designer drugs such as "eve" (MDE) or N-methyl-1-(1,3-benzodioxol-5-yl)-2-butanamine (MBDB)—have been included in 1991 and 1996, respectively.

Simultaneously, in the beginning of the '90s a new dance and music culture called "techno" emerged in many European countries. Dance and music events such as the "Love Parade" in Berlin became mass events with exploding numbers of visitors. The first Love

Address correspondence to Prof. Dr. Renate Soellner, FU Berlin, Fachbereich 12, Evaluation, Qualitätssicherung und Qualitätsmanagement in Erziehungswissenschaft und Psychologie, Habelschwerdter Allee 45, 14195 Berlin, Germany. E-mail: soellner@zedat.fu-berlin.de

Parade took place on July 1, 1989 with 150 participants. In 1995, 500,000 ravers came to Berlin to be part of the Love Parade and in 1999 the peak was reached with 1.5 million people. Soon a specific leisure industry (magazines, music, clubs, events, travel) was established, aiming at adolescents and young adults of the techno scene. In a representative survey on German adolescents at the end of the '90s, the "Shell Youth Study" (Jugendwerk der Deutschen Shell, 1998), 12% of German adolescents between 12 and 24 described themselves as techno fans, and another 21% identified with techno culture.

According to the media in the '90s, the use of party drugs seemed to be closely associated with a specific party scene characterized by large dance events featuring house, rave, and techno music. Thus, higher prevalence rates of ecstasy use within the techno scene were expected. There was substantial concern from youth and health authorities with respect to the dissemination of ecstasy and the potential health risks of its use.

In this paper the prevalence of ecstasy-related drug use in Germany will be described first on the basis of three representative household surveys. Secondly, two studies with convenience samples within the techno party scene will be presented. To give a more substantial insight into the use of ecstasy and related substances in Germany besides prevalence rates and frequency measures, motives for using and stopping the use of ecstasy will be described. In addition, the question of the mental health state of ecstasy users will be highlighted.

Epidemiology

Epidemiological studies concerning the use of ecstasy and related substances showed that the lifetime incidence of ecstasy use varied in European adolescents aged from 13 to 18 in the mid '90s from 0% (e.g., Finland) to 8–12% (United Kingdom) (Pederson and Skrondal, 1999; Smart and Osborne, 2000). In university students the variation is similar: lifetime use of ecstasy or designer drugs in Spain was about 1.6% and 13% in the United Kingdom (Martinez et al., 1999; Webb et al., 1996). According to representative household surveys in Europe investigating adolescents and adults, the lifetime use varies between 0.2% (Greece) and 4.5% (Spain) (Kokkevi et al., 2000; de la Fuente et al., 1997).

In Germany, two studies are conducted permanently in order to monitor the legal and illegal drug use behavior of the German population. The first study entitled "Drug Affinity Among Young People in the Federal Republic of Germany" (Drogenaffinität Jugendlicher in der Bundesrepublik Deutschland) is carried out on behalf of the Federal Centre for Health Education [Bundeszentrale für gesundheitliche Aufklärung (BZgA)]. The second population-based study called "Population Survey on the Consumption of Psychoactive Substances in the German Adult Population" (Repräsentativerhebung zum Gebrauch psychoaktiver Substanzen bei Erwachsenen in Deutschland) is commissioned by the Federal Ministry of Health and Social Security [Bundesministerium für Gesundheit und soziale Sicherung (BMGS)]. While the drug-affinity study aims at adolescents and young adults (12–25-year-olds), the representative survey of the BMGS focuses on adults aged 18–59 years.

Drug Affinity Among Young People in the Federal Republic of Germany

Since 1973, the Federal Centre for Health Education (BZgA) has conducted a representative survey of substance use among young people and young adults called "Drug Affinity Among Young People in the Federal Republic of Germany" every 3 to 4 years. Data for the most recent study was collected from November 2000 to January 2001 by Forsa, an organization for social research and statistical analyses. The sample was drawn on the basis

Table 1
Lifetime prevalence of drug use in Germany from 1993 to 2001

Lifetime prevalence	1993 (N = 3000)		1997 (N = 3000)		2001 (N = 3000)	
	N	%w	N	%w	N	%w
Cannabis	480	16	570	19	780	26
Ecstasy	^a	^a	150	5	120	4
Amphetamines	120	4	90	3	90	3
LSD	60	2	60	2	60	2

^aNot measured in 1993.

Data Source: 2001, Survey on "Drug Affinity Among Young People in the Federal Republic of Germany."

of a two-way random selection: First, computer-generated random telephone numbers were used to select households; in a second step, the 12–25-year-old participants in each household were selected randomly. In total, 2000 people in western Germany and 1000 people in eastern Germany aged 12 to 25 years were investigated by computer-aided telephone interviews (CATI). Beside epidemiological data on licit and illicit substance use, the questionnaire covers psychological characteristics such as attitudes towards drugs, willingness to try them, and perceived availability. Ecstasy was included in the survey in 1993 for the first time. Lifetime prevalence of various illegal substances remained quite stable over the last 10 years apart from cannabis (see Table 1). In 2001 lifetime prevalence of ecstasy and amphetamine use was about 4% and 3%, respectively (Bundeszentrale für gesundheitliche Aufklärung, 2001).

Analysis revealed that the increasing number of young adults having used cannabis at least once from 16% in 1993 to 26% in 2001 is partly due to an extraordinary increase of cannabis use in the eastern part of Germany [former German Democratic Republic (GDR)] in the years from 1993 to 1997. Another reason for the increased lifetime prevalence of cannabis use is the growing acceptance of cannabis. The question, which of the following substances "one might try perhaps once" or "one should never try at all" resulted in the following pattern of responses (Table 2). The percentage of participants stating that "one might try cannabis perhaps once" was twice as high in 2001 (44%) than in 1993 (22%). At the same time, in 2001 fewer youngsters indicated that "one should never try at all" cannabis (55%) than in 1993 (75%). However, the toleration of ecstasy followed a different pattern: The percentage of those reporting, "one should never try at all" ecstasy increased from 72% in 1993 to 87% in 2001. Simultaneously, more subjects (12%) indicated that "one might try perhaps once" ecstasy or amphetamines in 2001 comparing to 1993 (4%).

These opposing trends are due to a higher response rate to that question in 2001 than in 1993. Young people thus express a clearer opinion concerning their handling of these substances. Obviously, the majority of young Germans are not willing to try ecstasy-related drugs (neither cocaine nor heroin).

Population Survey on the Consumption of Psychoactive Substances in the German Adult Population

Since 1980 the Federal Ministry of Health and Social Security commissioned a "Representative Study on the Use and Abuse of Illegal Drugs, Alcohol Drinks and Tobacco Goods" every 2 to 5 years. The age range of the interviewees shifted from 12–24 in the beginning to

Table 2
Acceptance of drug use (N = 3000)

Which of the following substances ...	One might try perhaps once		One should never try at all	
	N	%w	N	%w
Cannabis				
1993	660	22	2250	75
2001	1320	44	1650	55
Ecstasy				
1993	120	4	2160	72
2001	360	12	2610	87
Amphetamines				
1993	120	4	2340	78
2001	360	12	2610	87
LSD				
1993	90	3	2400	80
2001	180	6	2790	93

Data Source: 2001, Survey on "Drug Affinity Among Young People in the Federal Republic of Germany."

12–39 years at the end of the '80s. From 1995 on, only the adult population from 18–59 was surveyed (Kraus and Bauernfeind, 1997). The sampling procedure is based on a random selection of government registries. A semi-standardized questionnaire covering areas such as sociodemographic variables, licit and illicit drug use behavior, indicators of perceived availability of drugs, drug use of parents and peers and, since the end of the '90s, diagnostic categories for abuse and dependence. Ecstasy was included in the questionnaire in 1995. The data of the most recent study was gathered in 2000. The overall response rate was 45.5%, resulting in 8139 people who participated in the study (Kraus and Augustin, 2001). In the case of data inconsistencies, participants were phoned to clarify them. Due to the response rate of 45.5%, the sample was weighted in relation to the populations' distribution of age and gender for the eastern (former GDR) and western part of Germany [Federal Republic of Germany (FRG) until 1990] separately. Fifty-one percent of the participants in the western part and 52% in the eastern part were male.

Lifetime and 12-month prevalence of the use of ecstasy, amphetamines, and lysergic acid diethylamide (LSD) are displayed in Fig. 1.

Of the 18–59-year-old Germans in the western part (i.e., except the former GDR), 1.5% have tried ecstasy at least once. Experience with amphetamines (2.4%) and LSD (2.0%) is slightly higher. The younger cohorts are most experienced: 5.2% of the 18–20 year olds and 5.7% of the 21–24 year olds have tried ecstasy. Actual use of ecstasy, however, is less prevalent: 1.8% of the 21–24 and 3.7% of the 21–24 year olds have used ecstasy within the last 12 months. During the 30 days preceding the interview, 0.3% of the interviewees (n = 17) reported the use of ecstasy, 0.2% (n = 14) of amphetamines, and 0.1% (n = 4) of LSD. Comparing the drug use situation in East and West Germany, ecstasy is the only substance with higher 12-month prevalence figures in the eastern part. Extrapolated from the German population, 1.2 million of the 18–59 year olds have taken ecstasy within the 12-month period preceding the interview (Kraus and Augustin, 2001). Asked whether they are willing

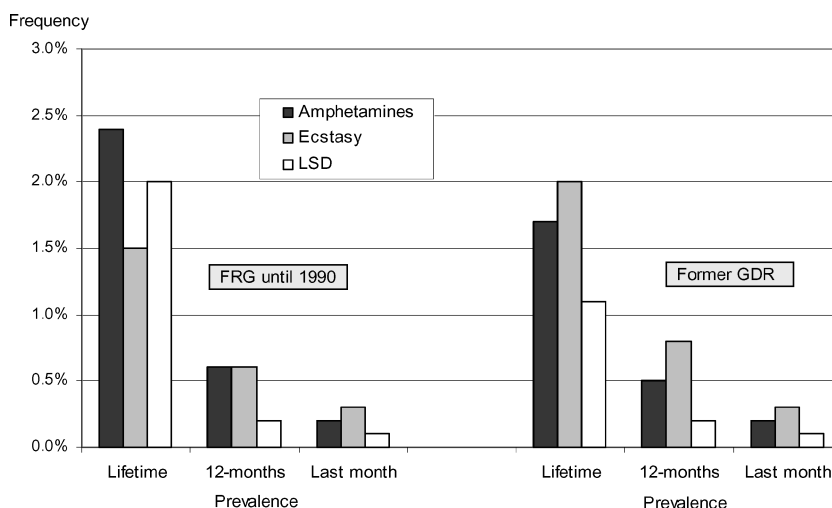


Figure 1. Prevalence of ecstasy and related substance use in the area of the Federal Republic of Germany (FRG) until 1990 and the former German Democratic Republic (GDR) in 2001. Data Source: “*Representative Study on the Use and Abuse of Illegal Drugs, Alcohol Drinks and Tobacco Goods.*”

to try various substances, 7.8% of drug experienced persons indicated “amphetamines,” 5.9% “ecstasy,” and 4.1% “LSD.” The same sequence was found for drug abstainers who said they would perhaps try amphetamines (2.2%), ecstasy (1.3%), or LSD (0.8%).

Early Developmental Stages of Psychopathology Study (EDSP)

A third study providing epidemiological data, the “Early Developmental Stages of Psychopathology (EDSP) study,” was conducted from 1994–1998 on the basis of a representative sample of 14–24 year olds from metropolitan Munich and the surrounding area (Wittchen et al., 1998). The sample was drawn randomly from the 1994 government registries. Since the study focused on early stages of substance use disorders, 14–15 year olds were sampled at twice the probability of 16–21 year olds, and 22–24 year olds were sampled at half the probability (von Sydow et al., 2002). Participants were interviewed three times in order to gain insight into variability and stability of drug-use patterns. Face-to-face computer assisted interviews were administered by professional health interviewers and a clinical psychologist. Diagnostic assessments were based on the Munich version of the Composite International Diagnostic Interview (M-CIDI) (Wittchen et al., 1997). A total of 3021 interviews were successfully realized at baseline (t0, 1995), resulting in a response rate of 71%. The first follow-up (t1) was confined to a younger subsample aged 14–17 at baseline and conducted in 1996–1997. The response rate of t1 was about 88%. The second follow-up (t2) took place in 1998–99, an average of 42 months after the baseline (range 34–50 months) and included the whole sample; the response rate was 83% (n = 2548). One hundred and two participants refused to respond to questions concerning illicit drug use at either of the interviews. Thus the dataset for the longitudinal analyses is about n = 2446.

At baseline, 4.7% had ever used ecstasy/stimulants/hallucinogens (von Sydow et al., 2002). The cumulative lifetime prevalence, calculated by adding baseline, t1, and t2 incident cases, revealed an increase of persons having ever used either of these substances to 9.1%. According to Lieb et al. (2002), lifetime prevalence at the follow-up was, respectively,

8.9% with 6.6% of ecstasy use and 2.3% of the use of any other related substance including amphetamines. Of the nonusers at baseline, 4.6% experienced the use of ecstasy in the follow-up period. Assessing actual use behavior by the (preceding) 12-month prevalence at t2 revealed that only 2.8% of the sample had used ecstasy and related drugs in the year before the follow-up, indicating that over two-thirds of all lifetime users had stopped their use.

Similar to other drug-using patterns, men use ecstasy more often than women. The age of onset of ecstasy use was unlikely to be dated before the age of 14, followed by a sudden increase in use, which stagnated at the age of 24 for females and 26 for males. A cohort comparison between younger (born 1977–1981) and older (born 1970–1977) participants revealed a higher increase in ecstasy use in the younger cohort.

Ecstasy users showed a higher probability of using other illicit drugs than nonusers. Nearly all of ecstasy lifetime users have ever tried cannabis (97.4%) and 58.9% cocaine (Schuster, 1998).

Regarding stability, the use of ecstasy seems to be a transient phenomenon. Eighty-eight percent of the occasional users of ecstasy (one to four times lifetime; assessed 12 months prior to the second follow-up) had turned out to be nonusers at the follow-up (t2) (von Sydow et al., 2002). Of the former nonusers, 99.2% did not show any use in the 12-month follow-up period. In the subgroup with considerable use patterns (more than four times lifetime but never used ecstasy more than two times a week), 64.6% participants stopped their ecstasy use while 72.5% with a prior heavy use (more than four times lifetime and at least once three times during 1 week) did so (Table 3).

Clinical Impact

The question whether the use of ecstasy is associated with serious health risks is discussed controversially in scientific literature. Opinions range from ecstasy being a relatively harmless substance, in the beginning of the '90s (Szukaj, 1994; Solowij, Hall, and Lee, 1992), to classifying it as a dangerous neurotoxin a few years later (McCann et al., 1998). With increasing prevalence rates of ecstasy use during the '90s, the number of studies investigating potential health problems associated with the use of ecstasy increased, too. More recent findings (e.g., Pederson and Skrondal, 1999; Schifano et al., 1998) suggest that the use of ecstasy may be associated with a wide range of mental disorders (Lieb et al., 2002).

Table 3
Longitudinal development of ecstasy/stimulant/hallucinogen use (N = 2446)

Cumulative lifetime incidence 12 months prior to t2 assessment	12-month status at second follow-up (t2)							
	No use		1–4 times use		Considerable use		Heavy use	
	N	%w	N	%w	N	%w	N	%w
Never use	2239	99.2	16	0.6	4	0.1	1	0.1
1–4 times use	82	87.7	11	9.0	4	2.2	1	1.1
Considerable use	50	64.5	12	15.6	14	19.2	1	0.6
Heavy use	7	72.5	1	6.9	2	13.2	1	7.3

Note: %w: Weighted percentage due to sampling design.

Data Source: 2002, Survey on “Early Developmental Stages of Psychopathology”; Data collected from 1996–1999.

But these results are limited in two ways: they are based on clinical samples and are cross-sectional. Thus, it cannot be determined whether mental disorders precede or follow the use of ecstasy.

The EDSP study included measures for diagnosing abuse and dependence of different substances as well as mental disorders via the M-CIDI-diagnostic algorithm (Wittchen et al., 1998). It was shown that 0.8% of the sample fulfilled the diagnostic criteria for a lifetime ecstasy-related substance use disorder according to the Diagnostic and Statistical Manual of Mental Disorders in its fourth edition (DSM-IV) (American Psychiatric Association, 1994), with 0.4% qualifying for “abuse” and 0.4% for “dependence” at baseline (Schuster et al., 1998). In relation to the lifetime prevalence of ecstasy use in this sample, this means that every fifth person having used any sort of ecstasy-related substance at least once, is likely to develop a relevant “substance use disorder,” measured via the DSM-IV. However, the EDSP study shows evidence for the possibility of overcoming ecstasy (stimulant, hallucinogen)-related disorders. Among those who had been diagnosed according to the DSM-IV criteria to abuse the substance, 67% reported no drug use at the 12-month follow-up (von Sydow et al., 2002) (see Table 4). Half of the ecstasy users with an initial dependence showed remission to no use, and another 36% still used ecstasy at the 12-month follow-up, but without disorder.

Concerning mental disorders besides “abuse” and “dependence,” the EDSP study showed increased proportions for most mental disorders in lifetime ecstasy users as compared to nonusers. Of the lifetime ecstasy users, 69% were diagnosed as having at least one mental disorder. To figure out whether the use of ecstasy precedes or follows the onset of mental disorders, first the temporal sequence of initial ecstasy use and DSM-IV mental disorders were analyzed. In the majority of cases (88.4%), the onset of mental disorders occurred prior to the first use of ecstasy or related substances (Lieb et al., 2002). In a second analysis, baseline abstainers and users were contrasted regarding the onset of mental disorders in the follow-up period. No significant difference in the incidence of mental disorders between these groups was found. Analyzing whether mental disorders at t0 increase the likelihood to initiate the use of ecstasy or related substances in the follow-up period revealed a higher proportion of ecstasy use among participants having a mental disorder (6.0%) compared with those having no mental disorder at t0 (3.2%) (Lieb et al., 2002).

Table 4
Longitudinal development of ecstasy/stimulant/hallucinogen abuse and dependence
(N = 2446)

Cumulative lifetime incidence 12 months prior t2 assessment	12-month status at second follow-up (t2)							
	Never use		Use, no disorder		Abuse, no dependence		Dependence	
	N	%w	N	%w	N	%w	N	%w
Never use	2239	99.2	20	0.8	1	0.1	0	0.0
Use, no disorder	119	79.8	32	19.6	2	0.6	0	0.0
Abuse, no dependence	14	67.2	3	14.9	4	17.9	0	0.0
Dependence	6	50.0	4	35.8	1	7.5	1	6.7

Note: %w: Weighted percentage due to sampling design.

Data Source: 2002, Survey on “Early Developmental Stages of Psychopathology”; Data collected from 1996–1999.

Ecstasy Use Within the Techno Party Scene

To investigate the phenomenon of "ecstasy use within the techno party scene," the Federal Centre for Health Education in 1996 promoted a study entitled "Drug Use by Young People in the Techno Party Scene" (Drogenkonsum Jugendlicher in der Techno-Party-Szene) (Tossmann and Heckmann, 1997).

In this study, 1664 adolescents and young adults were interviewed. The six-page questionnaire covered sociodemographic variables, indicators of closeness to the techno culture, former and actual drug use, and assessment of the perceived risks in relation to the use of different drugs. Twenty to 25 minutes were needed at maximum to answer the questions. The sample was recruited in specific techno-scene places like techno clubs ($n = 535$), techno raves ($n = 947$), and via the website of a nationally distributed scene magazine ($n = 182$) (Tossmann, 1998). Interviews were conducted by trained interviewers and took place between June and October 1996. About two-thirds of the interviewed were male, the age ranged from 11 to 43 years with a mean of 20.8 years ($SD = 4.4$). Of the participants ($n = 665$), 40% were employed; however, 47% of this group ($n = 313$) completed vocational training. One-fourth (26%) went to school, and about 14% were students.

In Table 5 the prevalence of the use of various substances in the techno sample is shown.

Cannabis is the illicit substance most commonly used within the techno party scene, with over two-thirds of respondents reporting having ever used it. About half of the interviewed used ecstasy at least once in their lifetime. Lifetime drug experience in this sample was quite high: about 44% experienced ever with speed, 37% with hallucinogens, and 31% with cocaine. Similar patterns of substance preferences are to be seen in respect to actual use behavior (last-year and last-month use). Almost every second participant used cannabis within the last 30 days preceding the interview. Compared to the drug use prevalence of representative household surveys, the techno sample interviewed in this study shows a higher affinity to drugs.

Concerning the frequency of use, the following pattern was found (Table 6). More than half of the sample reported "no use" of any illicit drug during the previous month. Again, it is shown that, contrary to the often put forward opinion by the media, ecstasy is not the "number one" drug in the club drug scene: but rather cannabis is. Twenty-eight percent of the drug users in the sample use exclusively cannabis. Of all interviewed, 14.4% report an almost

Table 5
Lifetime, 12-months, and last-month prevalence of drug use ($N = 1664$)

	Lifetime		12 months		Last month	
	N	%	N	%	N	%
Cannabis	1142	68.6	1030	61.9	807	48.5
Speed	817	49.1	465	46.0	589	35.4
Ecstasy	739	44.4	659	39.6	459	27.6
Hallucinogens	616	37.0	547	32.9	293	17.6
Cocaine	511	30.7	439	26.4	243	14.6
Opiates	93	5.6	58	3.5	28	1.7

Data Source: 2001, Survey on "Drug Use by young People in the Techno Party Scene"; Data collected in 1996.

daily cannabis use. The consumption of different drugs in combination with ecstasy underline that ecstasy users have a high affinity also to using cannabis, speed, and hallucinogens along with ecstasy. The most prevalent sequences of intake were “cannabis-ecstasy-speed” (10%) followed by “cannabis-ecstasy-speed-hallucinogens” (8%). The author concludes that the exclusive use of ecstasy in the techno party scene is almost nonexistent. “*Anyone using ecstasy quite obviously has an affinity to speed, which might suggest that the use of entactogens during party situations appears to be particularly attractive in combination with stimulants*” (Tossmann, 1998; p. 70) [entactogens: substances affecting the emotions (entactogenic action); for example ecstasy and Eve (MDE) can be categorized in this substance class; note of the author].

To explore variability and stability of ecstasy use behavior within the techno party scene and to gain insight into the motivation for changing drug use patterns, the Federal Centre of Health Promotion funded a second study called the “Techno Study,” which was conducted from May 1998 to October 1999. The quantitative part of the study was based on national data of a multi-site study on behalf of the European Union and on data collected in the Bundesland of Brandenburg and Saxony-Anhalt (two federal states of Germany). The sample was recruited on weekends during techno events with 500 to more than 1500 visitors from 8:00 p.m. on Fridays to 8:00 a.m. on Sundays. In total, 1412 persons were investigated with a slightly modified version of the questionnaire of the study cited above. This sample reported even more drug experience than the study cited above suggested. Table 7 shows lifetime, last-year, and last-month prevalence of the use of various substances. Again, cannabis is the most widespread illegal drug being used by nearly every second participant last month.

Motives for Using Ecstasy

To explore the reasons for using ecstasy as well as for quitting, 19 in-depth qualitative interviews were conducted within the scope of the Techno Study. Three areas of interest were addressed during the interview: multiple substance use, subjective “vulnerability” to substance use, and handling of risks. The interviews lasted from 30 to 90 minutes and were conducted in a noninvasive, conversational style. The interviews were transcribed and analyzed via content analytical methods (Mayring, 1995). Thus, statements concerning

Table 6
Frequency of use of illegal substances in the previous month (N = 1664)

Use	No use		On 1–4 days		On 5–14 days		On 15–24 days		(Almost) daily	
	N	%	N	%	N	%	N	%	N	%
Cannabis	862	51.8	235	14.1	191	11.5	138	8.3	240	14.4
Speed	1078	64.8	336	20.2	206	12.4	37	2.2	7	0.4
Ecstasy	1210	72.7	260	15.6	156	9.4	33	2.0	5	0.3
Hallucinogens	1374	82.6	218	13.1	62	3.7	8	0.5	2	0.1
Cocaine	1423	85.5	186	11.2	38	2.3	15	0.9	2	0.1
Opiates	1642	98.7	12	0.7	7	0.4	2	0.1	2	0.1

Data Source: 2001, Survey on “Drug Use by young People in the Techno Party Scene”; Data collected in 1996.

Table 7
Lifetime, 12-months, and last-month prevalence of drug use (N = 1412)

	Lifetime		12 months		Last month	
	N	%	N	%	N	%
Cannabis	1028	72.8	866	61.3	675	47.8
Speed	580	41.1	432	30.6	291	20.6
Ecstasy	566	40.1	418	29.6	284	20.1
Hallucinogens	474	33.6	316	22.4	152	10.8
Cocaine	390	27.6	274	19.4	144	10.2
Opiates	64	4.5	32	2.3	17	1.2

Data Source: 2001, "Techno Study"; Data collected in 1998.

the reasons for ecstasy use were checked for differences and similarities in order to find meta-categories. Finally, three meta-categories could be identified: a) affiliation, b) stimulation, and c) relaxation (Tossmann, Boldt, and Tensil, 2001). These findings resemble the reasons for drug use in general, which can be classified in three main categories: social motives, hedonistic motives, and motives of affect regulation (e.g., Newcomb et al., 1988). The most common reasons of Australian long-term cannabis users for using cannabis were, for example, relaxation or relief of tension and enjoyment or to feel good (Reilly et al., 1998).

Ecstasy is perceived as being extremely helpful in stimulating interaction. Statements such as "... *you are much more loosened. You talk to people and you get to know other people, that is the lunatic*" (translation by the author) were typical for the category affiliation. Also, the stimulating effects of ecstasy were mentioned especially in combination with the music "... *you move automatically ... you are moved by the music*" (translation by the author). Relaxation was reported in relation to abandon, to feel free from daily hassles and to experience emotions not prevalent in everyday life.

The association between the use of ecstasy and inducing or experiencing positive emotions was shown in the EDSP study as well. The most cited reasons for using ecstasy in that study are to be found in the area of feeling good ("a desire to feel good," 47.3%; "to party," 56.4%; "to have a good time," 62.3%) and "being together with other people," 70.9%. Coping with negative emotional states thus plays a less important role ("insecurity," 5.5%; "coping with problems," 10.9%; "as a distraction," 13.5%) (Schuster, 1998).

Motives for Quitting the Use of Ecstasy

Participants of the EDSP study described their motives for quitting the use of ecstasy with "fear of reduced efficiency" (74.5%), "fear of damage to health" (61.5%), and addiction (36.3%). Another 44% stated that "ecstasy did nothing to me," that is to say, that they stopped using it without special reasons. Interestingly, all reasons reported here are subject to prevention approaches. Damage to health, especially the risk of addiction and reduced performance achievement, are exactly the same posited risk factors dominating the discussion of risks due to the use of cannabis. From this point of view, the question arises as to whether peoples' fear of "reduced efficiency," "damage to health," or "addiction" refers to one's own experience or rather to preventive messages.

Limitations of the Studies

Following limitations of the studies should be considered.

Low response rates like 45.5% in the representative survey commissioned by the Federal Ministry may create a sampling bias in the variables of main interest: the drug use behaviour. Whether weighting procedures on the basis of age and gender distributions are an adequate feature to handle this bias has to be questioned. Given the fact that illicit drug use is a criminal offence in Germany, the prevalence rates might be an estimation of the true prevalence at minimum. Reasons for refusing to participate in these studies were not analyzed.

Due to the self-report of drug use precise information about the chemical composition of the pills could not be obtained. For that reason, different substances may have been categorized as ecstasy.

Analyses of considerable or heavy ecstasy use and substance use-related disorders are often based on very few cases.

Discussion

Summing up the epidemiological data of different studies on substance use behaviour, ecstasy has reached the second place (after cannabis) in illegal drug preferences of adolescents and young adults in Germany. With regard to the two former German states ecstasy is the only substance with higher 12-months prevalence figures in the eastern part. Parallel to this trend in representative surveys the figures of ecstasy use-related diagnoses increased in East Germany from 100 in 1996 to 577 in 1999 (Türk and Welsch, 2000). Similarly, the Criminal records show increase-rates of ecstasy use-related crimes in the area of the former GDR between 1997 and 1998 up to 60% (Bundeskriminalamt, 1999).

Although the use of ecstasy persists, the vision and concern about many adolescents or young adults becoming and being addicted to ecstasy has not come true. The majority of users of ecstasy and related drugs do not develop a substance-related DSM-IV disorder. The longitudinal data of the EDSP study strongly suggests that ecstasy use as well as ecstasy use-related disorders like "abuse" and "dependence" are of transient, "youth-limited" nature. The fact that 67% of those having fulfilled the criteria for ecstasy use-related "abuse" reported "no use" at all at follow-up and 50% of those with a diagnosis of ecstasy use-related "dependence" showed total remission to "no use" gives evidence for the transient character of ecstasy use-related disorders. Nevertheless, there is a group of long-time consumers, of whom more than one-third fulfilled DSM-IV criteria of "abuse" or "dependence" of more than 1 year.

The likelihood of frequent use of various illegal drugs increases sharply with the frequency of ecstasy use. Ecstasy users thus are more often polydrug users with increased levels of psychopathology (Schifano et al., 1998; Parrot, Sisk, and Turner, 2000). Concerning the question of whether the use of ecstasy promotes the onset of a mental disorder, the findings presented here support strong evidence for the assumption that the existence of mental disorders increases the likelihood of using ecstasy in the future. In contrast, no evidence could be found for ecstasy as a primary predicting "risk factor" for the onset of mental disorders (Lieb et al., 2002). There is a need for more longitudinal research in this field. Another issue that at least should be kept in mind when analyzing the DSM-IV "substance use disorders" nexus to "club-drugs," is the question of psychopathological health status in relation to a diagnosis such as "abuse" or "dependence." Concerning cannabis-related disorders, the clinical relevance of DSM-IV-derived diagnosis of substance use-related disorders has been questioned (Soellner, 2005).

Whether young people use drugs, and which drugs they use on which level seems to be more influenced by psychosocial development and the sociocultural setting than by the drug itself (Tossmann, 2002). Ecstasy does not seem to determine substance-specific drug use related behavior. It rather seems to be yet another substance in the youth-related illicit substance carousel. Speaking in terms of natural recovery, it is well documented that the vast majority of people who begin to use a variety of licit as well as illicit substances, for whatever reasons, stop on their own without treatment of any sort (Klingemann and Sobell, 2001).

RÉSUMÉ

Cet article décrit l'épidémiologie de l'utilisation des drogues de club en Allemagne comprenant le 3,4-méthylendioxy-N-méthamphétamine (MDMA) connu sous le nom de "ecstasy" et les substances relatives comme speed, amphétamines, hallucinogènes et le cannabis sur la base de cinq études différentes. Deux sont des enquêtes représentatives pour surveiller l'utilisation des drogues légales et illégales de la population allemande. La troisième est une étude longitudinale visée à explorer la co-morbidité, les facteurs de risque et protection dans les adolescents et les jeunes adultes avec l'emphase spécifique sur des désordres de substance comme la dépendance et le abus. Puisque ecstasy a semblé être associée à une nouvelle culture de musique des années '90 appelée le "techno," deux études explorant le rapport d'ecstasy et les substances relatives avec la scène de partie de techno sont présentées en plus. La question de l'impact clinique d'utiliser ecstasy et les substances relatives est soulevée en termes de désordres de substance mentaux liés à l'utilisation de l'ecstasy. Enfin la motivation pour consommer et arrêter l'utilisation de l'ecstasy est adressée. Il est montré que l'ecstasy a atteint le deuxième ordre (après cannabis) dans des préférences de drogue illégales des adolescents et des jeunes adultes en Allemagne. On trouve l'évidence que la consommation de l'ecstasy comme les désordres de substance, le abus et la dépendance d'ecstasy sont des phénomènes temporaires et limités aux jeunes.

RESUMEN

En este trabajo se describe la epidemiología del uso de la droga de "clubes" en Alemania, incluyendo el consumo del metilendioxy-N-metamfetamina 3,4 (MDMA) conocido como "ecstasy" y sustancias relacionadas como los estimulantes, anfetaminas, alucinógenos y el hachís, en base a cinco diferentes encuestas. Dos de ellas son encuestas representativas de familias para observar el comportamiento lícito e ilícito del uso de la droga en la población alemana. La tercera encuesta es un estudio longitudinal dirigido a explorar la co-morbosidad, riesgo y factores de protección en adolescentes y adultos jóvenes con énfasis específico en los desórdenes relacionados al uso de la sustancia. Puesto que el ecstasy parecía estar asociado a una nueva cultura de la música de los años noventa llamada "techno," se presentan adicionalmente dos estudios que investigan la relación del consumo del ecstasy y sustancias relacionadas con los ámbitos de las fiestas "techno." El tema del impacto clínico es formulado en términos del uso de ecstasy y sustancias relacionadas y de los desórdenes mentales asociados al consumo de la droga. Finalmente se tratan aspectos relacionados a la motivación del uso y detención del consumo del ecstasy. Se ha demostrado que el ecstasy ha alcanzado el segundo lugar (después de hachís) en preferencia ilegal de la droga en adolescentes y adultos jóvenes en Alemania. Se encontraron evidencias de que tanto el consumo del ecstasy como los desórdenes relacionados a éste como "abusos" y "dependencia" son de naturaleza transitoria o "limitada a la juventud."

THE AUTHOR



Renate Soellner, Ph.D., is an assistant professor at the Freie Universität Berlin and head of the department of evaluation, quality assurance, and quality management in education and psychology. After finishing her studies in psychology in 1992, Dr. Soellner worked as a research assistant in applied research fields predominantly concerned with drugs and AIDS, such as “drug mortality,” “HIV and drug use,” and “determinants of different cannabis use patterns.” In her Ph.D. thesis she analyzed the construct validity of the dependence syndrome via DSM-IV for the substance of cannabis. Her major research interests are evaluation of prevention programs in the field of public health and social science research methods. She gives lectures in evaluation, statistics, methodology, and health psychology.

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