7-1-1974

Pacific Information Service on Street-Drugs July 1974

School of Pharmacy

Follow this and additional works at: https://scholarlycommons.pacific.edu/issd

Part of the Chemicals and Drugs Commons, and the Pharmacy and Pharmaceutical Sciences Commons

Recommended Citation


This Article is brought to you for free and open access by the Thomas J. Long School of Pharmacy and Health Sciences at Scholarly Commons. It has been accepted for inclusion in Pacific Information Service on Street-Drugs by an authorized administrator of Scholarly Commons. For more information, please contact mgibney@pacific.edu.
Sponsored By: Beta Omega Chapter, Rho Chi
Gamma Nu Chapter, Kappa Psi
Associated Students University of the Pacific

Published By: School of Pharmacy
University of the Pacific
Stockton, California 95211
U. S. A.

All articles may be reprinted, if used in entirety.

PACIFIC INFORMAT·ION SERVICE ON STREET-DRUGS

SCIENCE LIBRARY
SEP 9 1974
UNIVERSITY OF THE PACIFIC

j.k. brown
m.h. malone

: editors

VOL. THREE NO. 5-6
To finish off Volume III, it seems appropriate to let our readers have access to a paper read by Dr. Brown at the Fifth International Institute on the Prevention and Treatment of Drug Dependence (Copenhagen, Denmark: July 8-12, 1974). The paper was written for Section 8: "Impact of Drug Education on the Community."

STREET DRUG COMPOSITION IN THE UNITED STATES AND IN EUROPE -- SIMILARITIES AND DIFFERENCES

Prof. John K. Brown and Prof. Marvin H. Malone; School of Pharmacy, University of the Pacific, Stockton, Calif. 95204; U.S.A.

and

Dr. J. C. Fileldt Kok and Dr. P. E. Kamp; Academisch Ziekenhuis bij de Universiteit van Amsterdam, Wilhelmina Gasthuis, Afd. Apotheek, Amsterdam; Nederland

The pioneering publications on the actual composition of illicit drugs (street-drugs) by Marshman and Gibbins in 1969(1) and 1970(2) soon stimulated others to publish the results of their findings(3-7). These early reports indicated that an amazing amount of deception was taking place in the illicit markets of Canada, United States, and Europe(1-10).

During the past four years, researchers in The Netherlands(7,12-16), Germany(11), and the United States(6,17) have contributed much to this special area of knowledge. These analytical reports have increased the public's awareness about the uncertain composition of street-drugs and have verified the trend of massive deception originally documented by Marshman and Gibbins(1-2). In addition, the transmission of data reporting the alleged contents and the actual chemistry of illicit drugs available in the street markets of The Netherlands, Germany, and the United States.

LSD-25 (Diethylamide) (LSD). During the past five years many hundreds of alleged LSD samples have been analysed in Canada(1-2), The Netherlands(16), Germany(11), and the United States(17). Each group has one conclusion in common -- alleged LSD sampled did, in fact, usually contain some LSD (Amsterdam: 67% of all alleged LSD formulations; Munich: 87%; United States: 84%). The amount of LSD in each formulation tended to vary rather widely.---Amsterdam: 3-490 mcg per dose(12); Munich: just detectable amounts up to nearly 500 mcg. per dose(17). Any amount over 120 mcg should be regarded as excessive.

The appearance of the illicit LSD samples were similar in each country, e.g.: orange tablet triturates (Orange Sunshine, Sunny Explor), spots on paper (Blotter Acid), gelatin and plastic flakes of various colors (Windowpane Acid), very small tablets (Micro-Dots), and clear and colored capsules. Since the quality of the LSD formulations were comparable and the dosage forms very similar, it is possible that the international LSD street markets are supplied from a common source(s).

LSD continues to be readily available on the streets of Europe and the United States. The dealers continue to provide the "drugs" that our users request.

Mescaline. This compound from the peyote cactus has a long history of use in the New World and is reputed to be a mild psychedelic. Colorful hallucinations and altered human consciousness result with dosages of approximately 350 mg (21). Drug experimenters generally consider this state to be pleasant and without danger -- hence they prefer "mescaline" to LSD when both are offered for sale. However, natural mescaline is unavailable to the drug-manufacturer and its synthesis is relatively costly and difficult considering the amount of an individual needs for a single "trip." Consequently, street-drug laboratories improvise to meet the real demand for this compound. The nature of such improvisations in Europe and America have been documented in a number of publications(11, 16-17).

The conclusions were similar -- the purchase of genuine mescaline was the rare exception. Most frequently "mescaline" samples in the United States (17) contained phenacyclidine (PCP) in addition to LSD. This mixture has not been reported by either the German or Amsterdam workers(11, 16). It is reputed that PCP, a veterinary tranquilizer-anesthetic, is added to the LSD in order "to smooth out the trip." A number of other compounds such as cocaine, aspirin, STP(4-methyl-2,5-dimethoxyamphetamine) have been found to be the active constituents of some of the other "mescaline" improvisations(17).

Psilocybin. The sensational reports in the popular press about the "magic mushrooms" of Mexico have created a street demand for both psilocybin and psilocybin-containing mushrooms. These mushrooms contain various forms of the less well known species found in the American states of California, Oregon, and Arizona. In The Netherlands(16), 25 samples of alleged psilocybin-containing formulations were analysed and contained LSD, one relief being mescaline, and 6 samples could not be identified as possessing an active ingredient. This story was similar to that documented for Munich(11) where LSD, lactose, starch, and derivatives were sometimes used to make up the composition and availability of the more popular illicit drugs available in the street markets of The Netherlands, Germany, and the United States.

Lyceric Acid Diethylamide (LSD). During the past five years many hundreds of alleged LSD samples have been analysed in Canada(1-2), The Netherlands(16), Germany(11), and the United States(17). Each group has one conclusion in common -- alleged LSD sampled did, in fact, usually contain some LSD (Amsterdam: 67% of all alleged LSD formulations; Munich: 87%; United States: 84%). The amount of LSD in each formulation tended to vary rather widely.---Amsterdam: 3-490 mcg per dose(12); Munich: just detectable amounts up to nearly 500 mcg. per dose(17). Any amount over 120 mcg should be regarded as excessive.

The appearance of the illicit LSD samples were similar in each country, e.g.: orange tablet triturates (Orange Sunshine, Sunny Explor), spots on paper (Blotter Acid), gelatin and plastic flakes of various colors (Windowpane Acid), very small tablets (Micro-Dots), and clear and colored capsules. Since the quality of the LSD formulations were comparable and the dosage forms very similar, it is possible that the international LSD street markets are supplied from a common source(s).

LSD continues to be readily available on the streets of Europe and the United States. The dealers continue to provide the "drugs" that our users request.

Mescaline. This compound from the peyote cactus has a long history of use in the New World and is reputed to be a mild psychedelic. Colorful hallucinations and altered human consciousness result with dosages of approximately 350 mg (21). Drug experimenters generally consider this state to be pleasant and without danger -- hence they prefer "mescaline" to LSD when both are offered for sale. However, natural mescaline is unavailable to the drug-manufacturer and its synthesis is relatively costly and difficult considering the amount of an individual needs for a single "trip." Consequently, street-drug laboratories improvise to meet the real demand for this compound. The nature of such improvisations in Europe and America have been documented in a number of publications(11, 16-17).

The conclusions were similar -- the purchase of genuine mescaline was the rare exception. Most frequently "mescaline" samples in the United States (17) contained phenacyclidine (PCP) in addition to LSD. This mixture has not been reported by either the German or Amsterdam workers(11, 16). It is reputed that PCP, a veterinary tranquilizer-anesthetic, is added to the LSD in order "to smooth out the trip." A number of other compounds such as cocaine, aspirin, STP(4-methyl-2,5-dimethoxyamphetamine) have been found to be the active constituents of some of the other "mescaline" improvisations(17).

Psilocybin. The sensational reports in the popular press about the "magic mushrooms" of Mexico have created a street demand for both psilocybin and psilocybin-containing mushrooms. These mushrooms contain various forms of the less well known species found in the American states of California, Oregon, and Arizona. In The Netherlands(16), 25 samples of alleged psilocybin-containing formulations were analysed and contained LSD, one relief being mescaline, and 6 samples could not be identified as possessing an active ingredient. This story was similar to that documented for Munich(11) where LSD, lactose, starch, and derivatives were sometimes used to make up the composition and availability of the more popular illicit drugs available in the street markets of The Netherlands, Germany, and the United States.

Listeric Acid Diethylamide (LSD). During the past five years many hundreds of alleged LSD samples have been analysed in Canada(1-2), The Netherlands(16), Germany(11), and the United States(17). Each group has one conclusion in common -- alleged LSD sampled did, in fact, usually contain some LSD (Amsterdam: 67% of all alleged LSD formulations; Munich: 87%; United States: 84%). The amount of LSD in each formulation tended to vary rather widely.---Amsterdam: 3-490 mcg per dose(12); Munich: just detectable amounts up to nearly 500 mcg. per dose(17). Any amount over 120 mcg should be regarded as excessive.

The appearance of the illicit LSD samples were similar in each country, e.g.: orange tablet triturates (Orange Sunshine, Sunny Explor), spots on paper (Blotter Acid), gelatin and plastic flakes of various colors (Windowpane Acid), very small tablets (Micro-Dots), and clear and colored capsules. Since the quality of the LSD formulations were comparable and the dosage forms very similar, it is possible that the international LSD street markets are supplied from a common source(s).

LSD continues to be readily available on the streets of Europe and the United States. The dealers continue to provide the "drugs" that our users request.

Mescaline. This compound from the peyote cactus has a long history of use in the New World and is reputed to be a mild psychedelic. Colorful hallucinations and altered human consciousness result with dosages of approximately 350 mg (21). Drug experimenters generally consider this state to be pleasant and without danger -- hence they prefer "mescaline" to LSD when both are offered for sale. However, natural mescaline is unavailable to the drug-manufacturer and its synthesis is relatively costly and difficult considering the amount of an individual needs for a single "trip." Consequently, street-drug laboratories improvise to meet the real demand for this compound. The nature of such improvisations in Europe and America have been documented in a number of publications(11, 16-17).

The conclusions were similar -- the purchase of genuine mescaline was the rare exception. Most frequently "mescaline" samples in the United States (17) contained phenacyclidine (PCP) in addition to LSD. This mixture has not been reported by either the German or Amsterdam workers(11, 16). It is reputed that PCP, a veterinary tranquilizer-anesthetic, is added to the LSD in order "to smooth out the trip." A number of other compounds such as cocaine, aspirin, STP(4-methyl-2,5-dimethoxyamphetamine) have been found to be the active constituents of some of the other "mescaline" improvisations(17).

Psilocybin. The sensational reports in the popular press about the "magic mushrooms" of Mexico have created a street demand for both psilocybin and psilocybin-containing mushrooms. These mushrooms contain various forms of the less well known species found in the American states of California, Oregon, and Arizona. In The Netherlands(16), 25 samples of alleged psilocybin-containing formulations were analysed and contained LSD, one relief being mescaline, and 6 samples could not be identified as possessing an active ingredient. This story was similar to that documented for Munich(11) where LSD, lactose, starch, and derivatives were sometimes used to make up the composition and availability of the more popular illicit drugs available in the street markets of The Netherlands, Germany, and the United States.
Amphetamines.---Amphetamines appear to be readily available in both the United States and European street-drug markets. The Amsterdam group (16) analyzed a total of 236 alleged amphetamine-containing samples; approximately 68% contained an amphetamine, 64% of these contained amphetamine (usually in tablet form), 4% contained methamphetamine (usually as a powdered material), and 25% contained a form of small United States, amphetamine is most frequently seen in the form of small flat, compacted tablets with a crosscut score on one surface and weighing about 50 mg (22). Quantitative analysis of a number of these white crossetablets from various areas in California and the state of Washington showed an amphetamine content of 0.8 mg per tablet. The analysis of 30% of these samples indicated that about 6% contained amphetamine and approximately 30% of these samples contained the same white crossetablet. The quality of these samples is not reliable "white crosser" in amphetamine (17). The quality of these samples is not reliable enough to be classified as amphetamine (18). The samples from Palo Alto, California, indicate a steady decrease in the amount of amphetamine, that only 49.3% of these dosage forms contained amphetamine (19).

Cocaine.---This compound has a rather long history of non-medical use in the Americas (23-24) and in Europe (24-25). During the past 18 months, this drug has become more widely available in the illicit markets of the United States (17, 19). A recent newspaper story (26) reported that "The cocaine racket is booming in Britain."

The Amsterdam group reported the analytical results of 25 alleged cocaine samples collected from the street markets of the Netherlands (16). Fifteen samples contained only cocaine, one was procaine, three were contained various amounts of only cocaine, one was procaine, three were contained various amounts of only cocaine, and the remaining 6 samples contained a variety of non-cocaine samples. The samples of cocaine-containing samples submitted to the compounds. Mattek (11) has had no cocaine samples submitted to the compounds. Mattek (11) has had no cocaine samples submitted to the compounds. The Published analytical results of the Munich street-drug-analysis program are shown in Table I. The 361 alleged cocaine-containing samples from the American illicit market contained cocaine, plus some synthetic local anesthetic such as procaine. The results showed that 55% contained cocaine and 22% were identified as a local anesthetic and the remaining 22% were not identified as a local anesthetic sample. The results of 73% of the United States (19) indicated that 73.2% contained cocaine as the only drug. 18.7% were identified as a local anesthetic and the remaining 22% were not identified as a local anesthetic. 5.9% had none of the local anesthetic for activity, and 2.0% contained an activity detectable drug. In the report, 7.0% of the samples were identified as an activity detectable drug. These reports would suggest strongly that the available cocaine samples are on the increase in the United States and Europe. The results of the United States (17) indicated that cocaine is not quantitated.

Table I. -- Composition of Some Street-Heroin Samples Collected in Amsterdam, The Netherlands

<table>
<thead>
<tr>
<th>Sample Received</th>
<th>Heroin HCl</th>
<th>Caffeine</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/10/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>3/18/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>3/24/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>12/24/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>12/24/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>12/24/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>12/24/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>12/24/73</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>12/24/73</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*The compound was detected but was not quantitated.

Heroin (Diamorphine).---Alleged heroin samples are not infrequently submitted to street-drug analysis programs in the United States (17, 19). It is necessary to rely on other sources of information for the composition and the amount of heroin in the sample. The quality of the illicit heroin market. The results of the Amsterdam group for their first three years of operation have been published (7, 12, 16) and were similar to the findings of investigators in Germany (11) and in the United States (17). However, since December of 1973 the composition of the street-heroin has changed dramatically. Illicit heroin has become a mixture of heroin-caffeine or heroin-coke-caffeine-strychnine. Such material was either pinkish and grey-white in color, and solid usually as a powder but sometimes in a granular form (color was not an indication of composition). The quantitation of a typical street-heroin-containing sample (gray-white) was: 5% heroin, 40% caffeine, and 5% strychnine. Another typical gray-white sample contained: 50% heroin and 50% caffeine. Quantitative analyses of samples since December, 1973 indicate an average heroin content of approximately 40% (range: 10-60%), caffeine content of approximately 50% (range: 35-63%), and the strychnine-containing samples had an average of 1% strychnine. The Amsterdam police have found seizures of the same type of street-heroin, and their qualitative and quantitative analyses have yielded almost identical results (27). There is some evidence that this type of heroin is prepared for smoking and not intended for injection (27). The composition of some typical street-heroin samples collected in Amsterdam are indicated in Table I.

In the eastern part of the United States (Philadelphia), typical samples of street-heroin packaged in a 111 mg range (65-197 mg) and average only 4.5% heroin (range: 0.4-8.9).
plus 2.4% quinine (range: 0.3-4.2%) with the remainder consisting of unspecified diluents (28). The Drug Enforcement Administration of the United States Department of Justice has reported that the usual concentration of street-hero in the Chicago, Illinois area was 5-10% (29). Investigators have shown that the heroin available in the western United States usually was procaine rather than the traditional quinine (20).

The Amsterdam Scene. -- A summary of the analytical results on 854 street-drugs is detailed in Table II.

Conclusions. -- The analyses of thousands of street-drugs collected in the Netherlands (7,12-16), Germany (11), and the United States (3-4, 8-10, 11, usually do contain LSD per dose varying widely, psilocybin generally not available and with the ubiquitous LSD being in a street sample; most frequently the tranquilizer-anesthetic PCP (phenethed) to the street-drug markets of the United States (11,18). Alleged amphetamine is increasing in the United States (11,16). Alleged amphetamine samples usually contain some amphetamine, but the incidence of derived from the plant, Cannabis sativa L., such as marijuana and hashish, the most frequently encountered cannabis product in the United States (17,19). Products alleged to be usually are as alleged. Hashish is common in Europe (16), and marijuana is cocaine and cocaine-local anesthetic mixtures are much more common in the cocaine in becoming more popular in Europe (26-27). The greatest international heroin with small amounts of quinine or procaine: Europe: 40-50% heroin with user would have serious medical problems (overdose) if suddenly he were presented with the more potent European heroin.

The methods for the collection of street-drugs (30-31) and the procedures for their rapid analysis have been developed and published (32-33). The gross misrepresentation taking place in the illicit drug markets has been documented. But -- there are unanswered questions about the usefulness of these programs and the information produced. Have these programs altered the drug use of our countries about the hazards of street-drug use? Have the answers to these questions not been known to us, but we hope the information provided by our programs has deterred experimentation by some (or any)? The answer to this question is unknown. Have they been useful in educating the youth and others of our countries about the hazards of street-drug use? Have the published analytical results deterred experimentation by some (or any)? The answer to this question is unknown. Have they been useful in educating the youth and others of our countries about the hazards of street-drug use? Have the published analytical results deterred experimentation by some (or any)?

Since the methods and procedures for this type of program have been developed on an international basis by concerned scientists in Canada (1-2), the United States (31,34-35), Germany (11), and The Netherlands (30,32-33), it should be the responsibility of the individual governments to decide if these programs are useful and/or necessary for the education of the citizenry regarding the real hazards involved in the indiscriminate use of drugs.

-- June 12, 1974/Amsterdam, The Netherlands

Pacific Information Service on Street Drugs

Volume 3 No. 5-6

July, 1974
While arthritis does not kill, it is a painful and frequently disabling disease that afflicts 1 out of 16 Americans in some form. Since the disease is chronic and with no cure, effective treatment today tends to go on as long as the patient lives. Improvement comes slowly even with the best of treatments and each treatment must be individualized since there are many diagnosable varieties of arthritis. The foundation of drug therapy is still that very effective (but very commonplace) pharmaceutical termed as "buffered aspirin."

Americans tend to become very impatient if their family physician does not cure them of any and every disease within 3 weeks. They drop the family physician (who knows their medical history best) and then go shopping for more sympathetic doctors. After the second or third doctor has not produced the miracle cure, they succumb to the claims of arthritis quackery. This is presently a big business with Americans quite willing to pay over $403,000,000 per year for quack arthritis treatments (copper bracelets, included). Such advertised treatments "succeed" just as much as the percent "success" is exactly that found in totally untreated patients. Arthritis is a very unpredictable disease -- waxing and waning day by day and occasionally going into remission for periods of weeks, months, and years only to return. Untreated arthritis worsens with time and eventually results in disability.

An alternative to quackery has been provided for arthritis sufferers in California and in neighboring states -- Dr. Feelgood. Dr. Feelgood (real name withheld) practices in Mexico and prescribes drugs "not available in the States" and prescribes only to make you "feel good." Patients from above Sacramento make the long trek to Mexicali, wait patiently for hours with a 4-6 month supply of unlabeled "wonder" drugs. The period for the "diagnosis" is minimal. No precautions about the drugs are detailed. Patients are told that they represent "new advances in therapy" kept out of the United States because of "foolish" drug laws. The patients return home and feel great in a matter of days -- they proceed to tell other arthritis sufferers about the virtues of Dr. Feelgood. They continue to take their drugs day after day -- until health problems set in. The health problems appear to be unrelated to the therapy of Dr. Feelgood, and Dr. Feelgood can't be consulted because he is far away in Mexicali. They now seek out the long neglected family physician expecting him to straighten out the hypertension, the edema, the persistent infection, the endocrine disorders. The mental problems, etc. Frequently they do not mention Dr. Feelgood and his medicines at all -- the family physician then also prescribes drugs that inter-react with those of Dr. Feelgood and produce a true medical emergency. Eventually the unlabeled Mexicali drugs are found and sent to analytical labs for identification. Dr. Feelgood refuses to give such data.

References:

Corticoids are used to treat arthritis in the United States, but because of their cumulative toxicity they are used only as a transient or emergency treatment for "flare-ups" rather than as chronic maintenance therapy. Corticoids are not specific antirheumatic agents and do not remove the cause of the inflammation. They are all euphoriant and people like to take them. While the prednisone analogs (e.g., triamcinolone) have much less sodium-retention capacity than the naturally occurring corticoids (e.g., cortisone), all corticoids must not be given to individuals with hypertension or sodium-retention edema. All corticoids alter the endocrine balances of the body and seriously interfere with the body's capacity to resist infection and heal itself. All (especially the prednisone analogs) have the capacity to depress sexual function and alter menstrual cycles. Significant atrophy of the adrenal glands can result with as little as two weeks of therapy. Surgical procedures are contraindicated for anyone taking corticoids regularly. All immunization procedures (e.g., smallpox vaccination) must be avoided. Anyone with a history of tuberculosis or diabetes or psychosis must not take corticoids. Chronic therapy with triamcinolone can cause muscle weakness and if therapy is continued, muscle wasting results. Corticoids can trigger the activation of latent or healed peptic or duodenal ulcers. In children, growth can be halted; in older individuals the skeleton can be depleted of calcium resulting in easily broken bones. People on corticoids feel good, the face usually rounds out ("moon-face" syndrome), and body weight increases. The corticoids are valuable drugs, but should be given only under close medical supervision and for relatively short periods of time.

Of all the Mexican therapy, only indomethacin represents a relatively specific anti-inflammatory drug. This agent is widely used in the United States at the present time. It is not a euphoriant or "feel-good" drug, and is not an analgesic either. Because it acts to reduce the inflammation of arthritis, pain is naturally reduced and the person feels "relief" rather than "good." Indomethacin does not need the corticoids or diazepam for its effectiveness -- it works well alone. However, like many potent and specific drugs, indomethacin can cause side effects in susceptible patients -- the most common effects being: nausea, headache, vertigo, heartburn, diarrhea, and mental depression. The drug is contraindicated in children (fatal hepatitis has been reported). While cases of peptic or duodenal ulceration, ocular changes, and instances of leukopenia and other blood disorders have been reported, the potential for toxicity in adults is clearly less than with the corticoids and clearly more than with buffered aspirin preparations. While indomethacin can be given for long periods of therapy, it should be obvious that it, too, should be given under close medical supervision. Indomethacin does represent desirable antiarthritis therapy, but one does not have to go to Mexico for it. It does not make you feel good, it brings rather specific relief. It is not a dramatic drug, but then it is a rather safe drug.

PharmChem Laboratories in California apparently are also analysing Dr. Feelgood's prescriptions, but have not reported their results in detail. The PharmChem Newsletter indicates that the Mexican Rheumatism Society does not endorse Dr. Feelgood (36).

Reference:

(36) Ostrenga, J. A., PharmChem Newsletter, 3(1):1 (1974). Note: a subscription can be obtained by writing PharmChem Laboratories, 1848 Bay Road, Palo Alto CA 94303. Telephone: (415) 322-9942