1-1-1972

Pacific Information Service on Street-Drugs
January 1972

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
School of Pharmacy, "Pacific Information Service on Street-Drugs January 1972" (1972). Pacific Information Service on Street-Drugs. 2. https://scholarlycommons.pacific.edu/issd/2

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.
Editors: John K. Brown, Ph. D.
Associate Professor of Pharmacognosy

Marvin H. Malone, Ph. D.
Professor of Pharmacology

SCHOOL OF PHARMACY
University of the Pacific
Stockton, California 95204

Bulletin No. 2
January, 1972
Some Names - Addresses - Phone Numbers

Friends Incorporated
1420 N. California Street
Stockton, California 95201
Director: Lou Hardy

In Site of Tuolumne County Incorporated
P. O. Box 531
Sonora, California 95370
Director: Verna Nosker
Asst. Director: Richard Davis
Counselor-Aide: David Asia

"The Bridge"
P. O. Box 2068
Merced, California 95340
Director: John "Mike" Gallagher

Manteca House
Yosemite & Fremont Streets
Manteca, California 95336
Director: Elaine Gregory

Straight Drug Talk (S.D.T.)
Student Chapter, American Pharmaceutical Association
School of Pharmacy, University of the Pacific
Stockton, California 95204
Director: Arthur Whitney

The students will go into schools and meet with small groups of students to discuss the various aspects of the non-medical (and medical) use of drugs.

Do It Now Foundation
6136 Carlos Avenue
Hollywood, California 90028
Director: Victor Pawlak

This group does street-drug analyses and have started to publish their results in the Los Angeles Free Press.

School of Pharmacy
University of the Pacific
Stockton, California 95204
Dr. John K. Brown
Associate Professor of Pharmacognosy
Phone: (209) 946-2570

Dr. Marvin H. Malone
Professor of Pharmacology

LSD - and the market place

Our laboratory and others have not found strychnine as a contaminant of street-drugs, but reports of "strychnine" poisoning persist. This report will review some of the history of LSD and indicate a solution to this mystery.

LSD (lysergic acid diethylamide) is a semisynthetic hallucinogen manufactured from chemicals isolated from a fungus (Claviceps purpurea) that grows as a parasite on rye. Closely related lysergic acid amide is found naturally in the seeds of the common "heavenly blue" morning glory (Ipomea violacea) and also in another rather rare member of the same family (Convolvulaceae) known as Oloiuqui (Rivea corymbosa). It should be noted here that the eating of commercially processed seeds is not recommended since all such seeds are treated with a variety of toxic fungicides and pesticides to prevent spoilage.

In 1938, A. Stoll and A. Hofmann of Sandoz Research Laboratories in Switzerland synthesized LSD (1) starting with alkaloids isolated from the rye fungus (commonly called ergot). Hofmann discovered its hallucinogenic properties by accidental ingestion on April 16, 1943. He lapsed into a kind of drunkenness which was not unpleasant and which was characterized by extreme activity of imagination (2) -- the first good trip. Not knowing the dosage he had accidentally taken, he decided to repeat the experiment and took what he thought would be a very safe dosage (250 micrograms). Soon he was "shouting half insanely and babbling" -- the first bad trip. He later found that he had taken 10 times the effective psychedelic dosage. Providing that the LSD is pure, an effective psychedelic dose is 20-30 micrograms orally (2). Classical schizophrenia-like symptoms begin to appear when the dosage exceeds 30 micrograms (3). With doses of 400-500 micrograms there is definite increase in blood pressure, profuse salivation, lacrimation, sweating, a marked increase in pupil size, an exaggeration of reflexes, total disorientation and marked tremors of arms and legs (4). These symptoms resemble the classic textbook descriptions of subconvulsive doses of strychnine. The first notice that a person under LSD intoxication could be a danger to himself and to others was published in England in 1955 (5). The first to report the strychnine-like effect of LSD on spinal reflexes was Weidman in 1957 (6) and this has been confirmed in many species -- even in the elephant (7).

A word about dosage is in order, a level teaspoonful of table salt weighs about 4.8 grams. This amount is equal to 4,500 milligrams and 4,500,000 micrograms. Weight-wise a teaspoonful of table salt is equivalent to 192,000 psychedelic doses.
A safe psychedelic close is a micro amount requiring considerable sophistication to package into a safe tablet or capsule.

Certain street-drugs are legitimate drugs made by legitimate manufacturers and diverted into street commerce without tampering with the formulation (amphetamines, barbiturates). Dosages of these agents are quite consistent. Such is not the case with LSD, since it is usually made by amateur chemists and packaged by even more amateur pharmacists. In our laboratory, (see Table 1) we have found that the dosage of LSD in a tablet or capsule may vary from nothing to 500 micrograms. This inconsistency in dosage plays a major role in the quality of the trip since levels of 20-30 micrograms will be consistently safe, levels of 70-100 micrograms will be unpredictable, and levels of 300 micrograms and above will be consistently bad. High doses of LSD can easily be mistaken for beginning strychnine poisoning (5).

Quite often the manufacturers of LSD are users and tolerant to LSD, hence their manufacture dosages that are effective for them -- blissfully ignorant that the same dosage will be a gross overdose for an individual that has not taken such drugs regularly. The first notice that LSD causes tolerance was noted by Ishell and co-workers at the Lexington Hospital (9) and has been repeatedly confirmed by others. Significant tolerance can be seen within 4 days of routine dosage. Chlorpromazine (Thorazine) is the best antidote for overdose with LSD, and its use was first recommended in 1955 (10). However, it will not antidote all of the psychedelics, and severe drug interactions have resulted when chlorpromazine was used to treat LSD poisoning that turned out not to be LSD but PCP (phenylcyclidine) or one of the scopolamine-like drugs. It should be emphasized that the FDA does not guarantee the quality of street-drugs.

To date there is no scientific evidence that anyone taking LSD is more intelligent, more perceptive, more intuitive, or more artistic while under the influence of the drug; however, there is considerable evidence (scientific and otherwise) that they feel that way.

Generally, the word has gotten around among users of street-drugs that street quality LSD is unpredictable and that the chances for bad trips are high even when "conditions" are good (LSD should never be taken when a person is under stress or anxiety). Therefore, users prefer to buy "mescaline". While the dosage of pure mescaline is rather high (300 mg.), mescaline has an effective fail-safe mechanism to prevent overdosage. If one takes much above the psychedelic dosage.
there is vomiting which removes any unabsorbed drug from the stomach. Pure LSD does not have this emetic effect, so it is easy to take 100 times overdosage without vomiting.

While users want mescaline, mescaline is just not found being sold in the street (12). This situation is found uniformly throughout the USA and in Europe and is due pretty much to economics. LSD is relatively easy to make if one starts with certain of the expensive ergot alkaloids (a semi-synthetic process). Mescaline is somewhat more difficult to make, but the starting materials are relatively cheap. However, one level teaspoonful of mescaline (assume that it weighs equivalent to table salt) represents 16 safe doses while the same weight of LSD represents 192,000 safe doses if formulated properly. Assuming that each dose could be sold for a minimum of 50¢ (cheap), the teaspoonful of mescaline could sell for $8.00 as contrasted to $96,000.00 for the same amount of LSD. Once you deduct the cost of the starting material, the mescaline manufacturer is loosing money even if he sells direct. The LSD manufacturer however, makes real money and is a businessman first and foremost. Altruism has never been a characteristic of street-drug manufacturers or peddlers.

Marvin H. Malone
January 28, 1972

References