A STUDY TO DETERMINE THE FEASIBILITY OF UTILIZING THE TELELECTURE METHOD FOR PROVIDING CONTINUING EDUCATION FOR HEALTH PROFESSIONALS

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The telelecture method of teaching is the use of an amplified telephone call for the disseminating and sharing of information and ideas among select and known groups of individuals assembled at various distant locations. The method uses ordinary telephone lines and is designed for maximum flexibility and approximation to across-the-table discussion.

Although some research studies have been reported on the effectiveness of the telelecture as a teaching method, none have been concerned with the planning, implementation, and evaluation of a comprehensive subject matter telelecture course for large numbers of students. Therefore this study was undertaken to provide information related to the planning and implementing of such a course as well as to provide information about the knowledge gained by the participants, their change of opinions about various aspects of the subject matter, and their opinion about their satisfaction with the course.

Seven hundred and twenty-nine adult students registered for the 15 week (30 hour) telelecture course "Problems in Drug Abuse" which was designed for health professionals and offered at 72 listening locations throughout Wisconsin

during early 1969. The sample used for this study consisted of the 272 registrants who attended 10 of the 15 telelectures and returned both the pre- and post-course instruments.

The three evaluation instruments which were constructed were: 1) a knowledge test related to drug use, 2) an opinionnaire related to drug use, and 3) an opinionnaire about satisfaction with the course. The first two instruments were administered on a pre-post-course basis. The third was mailed to all registrants after the course.

Because of the varied occupations of the registrants, the sample was grouped into five occupational categories: Teachers, Health Professionals, Law Enforcement Officers, Counselors, and Others. This was done in order to view the possible differences existing among the groups with respect to their responses to the various instruments.

The data were analyzed using the matched pair t test to determine significance of the changes in mean scores on the instruments to measure knowledge and opinions related to drug use. The one-way analysis of variance technique was used to determine significance of the differences between mean difference scores of the occupational groups and the Scheffe post hoc procedure was used to determine where the significance existed. All tests of significance were performed with a 0.05 level of probability error. The opinionnaire about satisfaction with

the course was analyzed and a mean score was computed as well as the percent of individuals responding to each scale choice.

The study produced evidence to support the following conclusions:

1. The participants as a whole, as well as each occupational group, exhibited a significant gain in mean score on the knowledge test related to drug use.

2. The differences between the mean gain scores of the occupational groups on the knowledge test were significant for the Teachers and the Health Professionals, and the Teachers and the Law Enforcement Officers, but not for the other groups.

3. The participants as a whole exhibited a significant change in mean score on the opinionnaire about drug use, but only the Teachers, Law Enforcement Officers, and Others exhibited a significant change in mean score on the opinionnaire.

4. The differences between the mean difference scores of the occupational groups on the opinionnaire about drug use were not significant.

5. Based on mean posttest scores and a tally of individual scale responses, a majority of the participants, as well as a majority of each occupational group, indicated that they were satisfied with the method, procedure and content of the course.

6. Based on the above conclusions it is further concluded that the telelecture method represents a feasible approach for providing continuing education for health professionals.

Approved Milton O. Pella-Hpn 23/73

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by

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CHAPTER I

THE PROBLEM

Introduction

That adults must continue to learn after formal schooling has been completed, is a fact now widely accepted by society. The accelerating pace of social, cultural and technological change, coupled with the enormous accumulation of knowledge, demands that adults must continue to learn if they are to maintain their place in the social and economic order.

Grabowski (1) points out that not only is it necessary for professional people to stay abreast of developments in their specialization, but also

> "It is an accepted fact, nowadays, that the blue collar worker must relearn his trade three times before retirement to keep up with the ever rapid technological advances."

Professionals, particularly those responsible for health care, have found it necessary, and in some cases mandatory, to participate in continuing professional education to keep abreast of technological and social advances which have a direct influence on the meaning and practice of their profession. Hallenbeck (2) has described this situation in which professional people find themselves.

> ...Professional people of all sorts testify that one of their major concerns which never diminishes is keeping up with their professions. Doctors, engineers, lawyers, professors, social workers, scientists, mathematicians, and many others have said that they have had to learn more since graduation than it was possible to learn during their professional education. The new learning has been concerned with acquiring new skills and using new instruments, absorbing and applying new ideas, and at times understanding newly substantiated basic principles which have contravened much that was learned before. Such is the character of a world into which new knowledge is pumped at a terrific rate through manifold research processes.

As well as keeping abreast of current advancement in the professional's own specialty area, it is necessary for him to be aware of advancements in other areas where such advancements may directly or indirectly affect his profession. Russell (3), in commenting on "The Impact of the Explosion of Knowledge on Vocations and Adult Education," states that:

> ...The man in one speciality will want to learn about what is going on in others; this is made necessary by the integrative aspect of the technology of automation. Even more important, however, is liberal education. It is vital to interest them (professionals) in thinking through the implications of current events in politics, economics, psychology, as well as in their own and related specialties.

Russell's statement is especially true where the role of the professional is in a state of flux and new knowledge and new uses for old knowledge affect his functioning

adequately in his professional role. The responsibility for recognizing the need by individual professionals for updating is a personal thing, but the professional should be given the motivation to keep up-to-date by the institution during his professional academic training. Barber (4) points up this fact in his general explanation of the role of the professional school:

> The university professional school has as one of its basic functions the transmission to its students of the generalized and systematic knowledge that is the basis of professional performance. Not only the substantive knowledge itself, but knowledge of how to keep up with continuing advances in professional knowledge is what the university school seeks to give its students. Where the body of professional knowledge is changing very rapidly, the university professional school may take a direct role in promoting the "adult" education for the members of its profession through post-professional training courses, seminars and institutes.

So important is participation in continuing education to the pharmacist that Busse (5) speaking in New York at the organizational meeting of the Section of Teachers of Continuing Education of the American Association of Colleges of Pharmacy, said that, "The pharmacist who has ceased to learn ought not be allowed to practice his profession in these dangerous days." As a matter of fact, several professional societies and some licensing agencies require proof of participation in continuing education as a requirement for membership or renewal of license.

The need for pharmacists to participate in in-service professional education activity has been a recognized fact for nearly four decades at Wisconsin (6). This is further substantiated by Professor Arthur H. Uhl, dean emeritus of the School of Pharmacy at Wisconsin, who stated that "in the early thirties we would bring in pharmacists from around the state to introduce them to new knowledge and techniques which they could utilize and try out in their stores back home" (7). However, this type of in-service activity was on an irregular basis and limited by staffing and funding obstacles.

During the late thirties, evidence is available that Wisconsin pharmacists felt the need for continuing or in-service education. In an editorial, Strommen (8) wrote:

> ...Twenty-one years ago practicing pharmacists in Manitowoc County realized the need and necessity for maintaining their professional proficiency and attended pharmacy lectures conducted by Mr. Boberg, itinerant pharmacy instructor for the State Board of Vocational and Adult Education.

The University of Minnesota's continuation courses for pharmacists began in the early 1930's, but it was not until 1937 that the three-day campus institutes for pharmacists were considered generally successful as reported by Elliot (9).

Others recognized the need for pharmacists to participate in continuing education. Dean Robert C. Wilson (10) of the University of Georgia, in addressing the annual meeting of the National Wholesale Druggists' Association, pointed out the

need for continuing education in pharmacy as well as a plausible beginning point for the initiation of such a program.

> ...Education must be a process of continuing growth in all dimensions, and, in this respect, finds an analogy in biological processes wherein the formation of new cells to replace old ones is a condition necessary for the maintenance of life and growth.
>
> The solution to this phase of our educational problem lies in the possibility of the development of educational extension services, where, under the direction and auspices of the school or college of pharmacy, the stimulus to intellectual and commercial growth may be carried directly to the individual, to the end that every retail drug store in America may be so physically and spiritually equipped that they will reflect not only a professional spirit but financial and commercial stability as well.

Dean Wilson also suggested that such a program should be financed by the pharmaceutical manufacturers and wholesalers.

Dean Glenn L. Jenkins (11) was also an early proponent of continuing education for pharmacists by pointing out that

> ...We must always keep in mind the fact that the body of knowledge in use by any graduate at any time, in any of the various practices of pharmacy, is constantly shifting and that such knowledge as is acquired or can be acquired by the pharmacy student during his pharmacy courses bears only a slight relationship to that which he acquires and puts to use later in life.

In 1950 specific recommendations concerning the in-service training or continuing education of pharmacists were published in The General Report of the Pharmaceutical Survey 1946-49, under the general editorship of Edward C. Elliott (12). The three recommendations encompassed the responsibility for, the types of continuing education activities applicable, and the need for cooperation in this venture among the schools, the boards of pharmacy, the pharmaceutical association and the state department of public instruction:

> 1. IT IS RECOMMENDED that each of the accredited colleges and schools of pharmacy recognize and assume responsibility for providing organized programs of in-service professional instruction of the practicing pharmacists within the area normally served by the institution, and to this end set up, under competent, professional direction, an operation unit to be known as the "division of pharmaceutical extension."
>
> 2. IT IS RECOMMENDED that the duties of such division of pharmaceutical extension include the development of refresher courses conducted at the institution, programs of reading, correspondence study courses, and the systematic visitation and personal counseling of pharmacists.
>
> 3. IT IS RECOMMENDED, in order to insure the maximum of cooperative effort, that the state boards of pharmacy of each state take the initiative for the creation in the state of a Pharmaceutical Extension Council consisting of the dean of the college(s) or school(s) of pharmacy, the director(s) of the division(s) of pharmaceutical extension, and representatives of the state pharmaceutical association and the state department of public instruction.

Apparently these recommendations did have some effect on the establishment of in-service professional instruction by some schools of pharmacy. The Survey indicated that of the fifty pharmacy schools contacted in early 1948, only seven were attempting to provide in-service instructional activities for pharmacists. According to Blockstein (13), "There are literally hundreds of examples of the activities of schools and colleges." Of those in existence before 1955, but established after The Pharmaceutical Survey in 1948, Blockstein lists

> ...the Rutgers' pharmaceutical conference, founded in 1952 ... the pharmaceutical caravan of the University of Southern California, which began in 1954 to take on-campus seminars out over the state to pharmacists ... the University of Illinois' lecture on modern pharmacy (initiated in 1952) ... The University of Wisconsin's (department of Extension Services in Pharmacy) ...

Apple (14), in commenting on the implementation of the recommendations of The Survey by the schools and colleges of pharmacy, indicates that

> ... the profession ... has made little progress in carrying out The Survey's recommendations for in-service training for pharmacists. On the other hand, The Survey failed to offer any suggestions for financing the costly program which it considered essential.

The American Association of Colleges of Pharmacy (AACP), as early as 1941, also recognized the need for pharmacists to

participate in continuing education. In 1955 Bowers (15) summarized the activities of the Executive Committee of the AACP in promoting continuing education for pharmacists as well as trying to find the means for funding such activities. However, it was not until 1964 that there was sufficient interest within the AACP member schools and colleges to spearhead the formation of a Section of Teachers of Continuing Education in Pharmacy (16) for the purpose of sharing information and experiences to further the development of continuing pharmaceutical education.

Progress toward the development of formalized continuing education activities for pharmacists by the schools and colleges of pharmacy has been a slow process, but Alvellone (17) reports that in 1970 all seventy-four accredited schools and colleges of pharmacy in the United States report that they provide continuing education to the professionals of the geographic area which they serve.

Background of the Problem

As already stated, Wisconsin has provided continuing education for pharmacists throughout the state since the early 1930's, but it was not until 1950 that the University Extension department of Extension Services in Pharmacy was organized to provide pharmacists with up-to-date pharmaceutical knowledge and techniques in order to improve the pharmaceutical services available to Wisconsin citizens. The departmental activities serve to help Wisconsin pharmacists

develop a philosophy regarding their role in protecting and improving public health, as well as to familiarize other health professionals and the general public with professional services available from pharmacists in addition to promoting the study of professional and economic aspects of Wisconsin pharmacy.

On- and off-campus lectures, conferences, and laboratory workshops have been the mainstay of pharmacy extension activities, and since 1966 the telelecture method of providing educational information has been employed to augment the offerings of the department.

The telelecture method is the use of an amplified telephone call for the disseminating and sharing of information and ideas among groups of individuals assembled at various distant locations. The only equipment necessary, in addition to a regular non-dialing telephone handset, is an amplifier or loudspeaker which is installed into the system by the local telephone company. Each such installation is interconnected so that the convener at any location can simply pick up the handset and speak to the individuals at all of the other locations.

The method uses ordinary telephone lines and provides for communication among select and known groups. It takes the form of a huge party line and is designed for maximum flexibility and practical approximation to across-the-table discussion.

Utilization of the telelecture method in Wisconsin, on a demonstration basis in the early 1960's, is documented by Axford (18) and Cook (19), but it was not until late 1966 that the method was used to provide continuing education on a systematic basis.

An experimental series of regularly scheduled medical conferences was conducted during the period November, 1965 through February 15, 1966, by the Department of Postgraduate Medicine, University Extension, The University of Wisconsin. The series of medical conferences, received by a network of eighteen hospital locations throughout Wisconsin, was designed to determine the usefulness of the telelecture method as a practical, convenient and effective form of continuing education for the medical and allied health professions in Wisconsin.

The success and acceptance of the experimental series of medical conferences, as later reported by Meyer et al. (20), prompted the leasing of a network of private telephone lines by The University of Wisconsin on a fulltime basis for teaching purposes beginning February 15, 1966.

This latter system has developed into the Educational Telephone Network (ETN) of The University of Wisconsin which expanded from 18 hospital locations in 1965 to 121 locations in the fall of 1968.

It should be noted here that in the view of this writer the report by Meyer et al. did not substantiate either the "usefulness" or the "success and acceptance" of the

experimental series of medical conferences.

No doubt the true factors which prompted the leasing of transmission lines for an educational telephone network were the novel nature of the telelecture method, the possibility of reaching large numbers of potential students, and the "feeling" that the system was good.

Since, by 1968, Wisconsin's ETN was established and had not yet been seriously evaluated with respect to educational value and acceptance by students, it was decided to find out how feasible ETN was for providing a comprehensive subject matter course for health professionals.

The subject matter of the course was determined from the number of requests received by Extension Services in Pharmacy from community pharmacists and other health professionals for information related to drug abuse. It was obvious that they needed more knowledge to function adequately as advisers to their communities in matters pertaining to drug abuse and to help provide drug respect education to their communities.

Before planning the proposed telelecture course, decisions had to be made concerning 1) how comprehensively the subject matter would be treated and 2) the technique to be used to expose the population to the new knowledge. One of the departmental objectives of Extension Services in Pharmacy is that continuing education should include the presentation of "...summaries of fundamental theory and background information ... for the purpose of reviewing long

forgotten education." This led to the decision that the proposed course would be a comprehensive treatment of the subject matter, including review of basic background information and underlying principles, presentation of current information, and consideration of the implications of the subject matter for current practice.

The decision about the technique of teaching to be used to expose the participants to the new knowledge was based on past departmental experience. Because Extension Services in Pharmacy had had success with previous courses utilizing the lecture-discussion technique, and wanted to involve subject matter experts as the sources of knowledge, it was decided that the lecture-discussion technique would be the choice.

Having made the decisions pertaining to course content and teaching technique, planning was begun for a comprehensive course related to drug use and abuse for community health professionals utilizing the telelecture method.

Statement of the Problem

The problem was to determine the feasibility of utilizing the telelecture method for providing a continuing education course to health professionals. The objective of this investigation was to evaluate the success of a course in drug use and abuse. The criteria of success were based on whether or not the participants, upon completing the course,

1) exhibited a significant gain in mean score on a knowledge test related to drug use and abuse.
2) produced a significant change in mean score on an instrument related to opinions about drug use and abuse.
3) held an opinion of satisfaction with the course.

Significance of the Study

If it can be shown that a professional course related to drug use and abuse utilizing the telelecture method serves to 1) increase the knowledge of the participants served, 2) change the opinion of the participants, and 3) be satisfying to the participants with respect to method, procedure, and content, then more confidence can be placed in the telelecture method as a means of providing continuing education for health professionals.

CHAPTER II

REVIEW OF RELATED STUDIES

Introduction

The increasing need for continuing education in the United States has led to the utilization of modern communication systems by colleges, universities and other agencies to meet the needs of those individuals in far-flung geographic locations.

According to Balanoff (21) the adaptation of the telephone conference call to formal educational situations was first used at Stephens College, Columbia, Missouri, during the 1958-59 academic year for enrichment purposes. The telephone conference call provided the means for classes to interview significant individuals throughout the United States and thereby enrich didactic work. Other early users of the telephone conference call or telelecture method of teaching include Axford (18), Cook (19), Paulsen (22), and Christians (23), and each of these authors reports acceptance of the method by course participants. Parker (24) lists additional reports of the successful use of the telelecture technique.

Studies based on the use of the telelecture method as a means of disseminating knowledge and information to learners may logically be divided into two categories: descriptive and analytical. Descriptive evaluation studies, as used in the context of this report, are subjective telelecture

evaluations based on how good or how bad the learners thought the method was. Analytical studies are those subjective evaluations attempting to measure the significance of a behavioral change in the learners.

Descriptive Studies

Representative descriptive studies on the use of the telelecture method for providing in-service or continuing education for professions include the project of the Iowa State Department of Public Instruction (25). The project involved the use of the telelecture method coupled with the electrowriter technique to provide in-service training for teachers in the content and presentation of modern mathematics, and was found to be "effective" for this purpose.

Ristau (26) has described a graduate chemistry class taught by telelecture and electrowriter from Texas A & M University and reported that staff members of a chemical company were "highly satisfied" with the method of learning.

A seven-week (fourteen hours) telelecture course, Pharmaceutical Services: Extended Care Facilities and Smaller Hospitals, for which 343 Wisconsin pharmacists and allied health professionals registered, has been described by Blockstein and Durant (27). They report that the "evaluation based on the utility of the material to present practice indicates that the telelecture method shows promise as a means of continuing professional education."

Braig and Johnson (28) have reported on a six-hour pilot telelecture course for Wisconsin clergymen covering aspects of church-community relationships. An evaluation by a portion of the 285 clergymen registered indicated "considerable evidence for favorable evaluation of the entire ... project."

A ten-hour (ten-week) course in the elements of Hebrew reading and writing taught by telelecture and electrowriter has been described by Edelman (29). The course was taught by a master teacher to two telelecture audiences, at Grand Rapids and East Lansing, Michigan, and a face-to-face audience in Chicago. The evaluation, based on achievement in oral and sight reading of Hebrew, showed a high degree of similarity in test results for all three groups.

"Changing Concepts of Tuberculosis and Their Meaning for Nurses," was the title of the six-week telelecture course reported by Regan and Haasch (30). These authors solicited the opinion of the participants with respect to the value of the course and received replies such as: "...it has been useful and meaningful to me; ...especially meaningful since my knowledge of the subject was quite outdated."

Analytical Studies

Cutler, McKeachie and MacNeil (31) investigated the use of the telephone lecture (telelecture) in college level

instruction in psychology as compared to the face-to-face lecture. The twelve-hour (eight weeks) course was presented to two matched groups of ten individuals each. The investigators found that both groups showed a gain in knowledge but there was no significant differences in learning between the two groups. It is highly doubtful that a study done with 20 subjects has much implication for a mass media teaching method.

Meyer, Hansen and Keliher (20) evaluated a 17-hour electrocardiography telelecture course in which 50 medical practitioners located in 14 Wisconsin communities participated. A group of 42 medical students received the same material in face-to-face lectures. Evaluation was based on a pretest, posttest and a six-month posttest producing average scores of 40.1%, 59.9% and 70.5%, respectively, for the practitioners which was essentially the same for the medical student group.

The conclusion was drawn that there was no significant difference in the performance of either group. This study, in the opinion of the authors, indicated that transfer of information to medical practitioners is possible by use of the telelecture method. It should be noted that only five practitioners and eight medical students took all three tests, ten of each group took two of the tests, and 35 practitioners and 23 medical students took only one of the tests. To any serious researcher it would seem doubtful

that a study with such a poor response with so few subjects could produce credible results.

Boswell and associates (32) studied the basic question of whether or not remote teaching produced results comparable with those observed in the face-to-face teaching situation using three classes in introductory psychology. Main dependent variable in the study was the score on a pre- and posttest. Neither the pretest nor the posttest scores indicated a significant difference in content knowledge among the groups after training. However, the authors fail to point out if there was anything learned by the students.

A post-course teacher-class evaluation form was administered to all students to determine whether subtle attitudinal factors separated the groups. The evaluation showed no overall differences in student attitude toward the content or toward presentation characteristics.

Ewbank and Baker (33) found no significant differences between a telelecture audience and a face-to-face audience composed of 4-H Club members in their ability to recall information from a thirty-nine minute presentation titled "Selected Aspects of Indiana's Early History.". Both groups recalled more information from the lecture than can be accounted for by chance or prior knowledge.

Blackwood and Trent (34) compared the effectiveness of face-to-face and telelecture methods in communicating educational information to County Extension Homemakers using

pre- and posttest scores to measure accumulated knowledge. There were 34 subjects in the face-to-face group and 37 subjects in the remote group. Although some association was indicated by the study, no significant relationships were found to exist with the amount of learning for either technique for the variables of age, level of education, time of day of presentation, and attitude toward the telelecture method.

Pellett (35) found that no significant differences were measurable in terms of knowledge recalled by 64 extension agents who received one subject matter lecture via the telelecture method as compared to 66 extension agents who received the same lecture in a traditional face-to-face district in-service training meeting based on a posttest only.

Summary

The studies cited above have been conducted using small groups over short periods of time treating a particular subject area topic in depth. It is the intent of this study to determine if participation in a comprehensive professional course related to drug use and abuse serves to increase the knowledge of the participants about the subject, changes the opinion of the participants about drug abuse, and is satisfying to the participants.

CHAPTER III

PROCEDURE

The problem was to determine the feasibility of utilizing the telelecture method for providing a continuing education course in drug use and abuse to health professionals. This chapter deals with the procedures followed in studying the three aspects of the problem: Planning the Course, Implementation of the Course, and Evaluation of the Course.

Planning the Course

Drug abuse is defined as the self-administration of drugs and chemicals either for nonmedical reasons or in quantities and frequencies beyond those specified for proper medication. Using this definition as a guideline, the content of the course was planned to include medically sound information presented by lecturers who had expertise in specific areas related to drug abuse. To determine the subject matter to be included in the course, a search of the literature was initiated to find out which drugs and chemicals were subject to abuse or abuse potential, and to identify the experts concerned with the study of drug abuse and abused substances.

Drug Abuse Literature

Beginning in the fall of 1967 and extending for twelve months, this writer searched out, read, and recorded sources pertaining to the misuse and abuse of drugs and chemicals. The resultant extensive bibliography contained references from popular type publications such as Time and Newsweek as well as scientific articles from professional journals of medicine, pharmacy and the social sciences.

It was thought that this bibliography would be compiled into a basic document to serve as a reference for those individuals interested in drug respect education, but before these plans materialized, the American Pharmaceutical Association published A Guide for the Professions ... Drug Abuse Education (36) which provided extensive information about the literature, films and programs pertaining to all aspects of drug abuse.

Subject Matter Areas

During the process of compiling the bibliography about drug abuse, certain areas emerged as being appropriate and necessary for inclusion in a professional course related to drug abuse. These areas included:

1) general background of the drug abuse problem - definitions, historical development, its magnitude and need for the legal control of drugs;

2) pharmacologic and psychologic bases of drug abuse - definition and explanation of such terms as addiction, habituation, and dependence;

3) social, economic and cultural correlates of the drug abuse problem;

4) pharmacology and adverse effects of abused substances;

5) treatment and rehabilitation of drug abusers; and

6) prevention of drug abuse - the responsibility of state and local governments as well as education of the general public.

In establishing the syllabus for the course it was felt that the relationship of each discipline to the problem of drug abuse should be given an opportunity to state its case. It was also felt that by having all concerned disciplines represented, emphasis could be placed on the importance of the interrelationships of the disciplines in attacking and solving the problem of drug abuse.

Course Syllabus

After establishing the general areas which were thought to be essential for a comprehensive, interdisciplinary approach to a professional course related to drug abuse, the course was further refined by designating specific topics to

be included within each area. This was accomplished by arranging the drug abuse bibliography into the subject matter areas. It was immediately apparent which individuals were the research specialists within the specific areas of drug abuse. Therefore the selection of topics and lecturers went hand in hand. In each case the expert in the topic under consideration, the one who had done research and who appeared, from his publications, to have a deep appreciation for bringing the case to the public, was the person selected to be the lecturer. The syllabus developed for the course was as follows:

I. Background of the drug abuse problem
   A. Historical development and basic issues
   B. Significance and characteristics of drug abuse
   C. The U.S. Bureau of Narcotics and Dangerous Drugs

II. Social, psychological and cultural aspects of drug abuse
   A. Use of narcotics among juveniles
   B. Basic problems in the social psychology of drug use
   C. Motivational patterns of drug abusers

III. Chemistry, pharmacology and adverse effects of abused drugs
   A. Narcotics
   B. Hallucinogens
   C. Depressants
   D. Stimulants
   E. Solvents

IV. Treatment and rehabilitation of drug abusers
   A. Clinical research on narcotic addiction
   B. Treatment and rehabilitation of hallucinogen abusers

V. Prevention of drug abuse
   A. Legal aspects
      1. Narcotics and the law
      2. Legal aspects of non-narcotic drugs
   B. Educational aspects
      1. The problems of drug abuse education
      2. Current status of programs in drug respect education

This syllabus required one two-hour session per week for a period of seventeen weeks, which is coincident with a one-semester, two-credit course.

Teaching Staff and Content of Lectures

As mentioned earlier, the selection of teaching staff and content of lectures went hand in hand. The lecturers were not selected because of their ability to teach, since there was no evidence available which could be used to document their teaching ability. But, it was ascertained that most of them had participated in seminars or other types of meetings where they presented prepared statements.

During the late summer of 1968, a personal letter (Appendix A) was sent to each prospective lecturer enlisting his support of and participation in the course. The letter of invitation explained what was to be accomplished and the teaching technique which would be utilized. The title of the proposed lecture was stated and a copy of the syllabus for the course was included with the letter to give the lecturer an idea of how his specific lecture should fit into the flow of the course. It was suggested that the lecture be 45-60 minutes in length. The judgment of the specific lecture content was left to the lecturer. In each case the prospective lecturer was requested to supply a 45-60 minute tape recording of his presentation with appropriate 2x2 transparencies, or other handout reference materials to accompany the lecture.

Two of the prospective lecturers declined the invitation to participate. Because of this, their assigned topics were incorporated into other lectures. A list of the topics and lecturers is included in the brochure describing the

course (Appendix B).

Course Materials

Slides - Three lecturers used a total of 44 slides in conjunction with their presentations. The original copies of the slides were supplied by the lecturers and duplicated in sufficient quantities to provide one set to each of the 72 course locations. Whenever possible slides were reproduced for student handout material.

Printed Materials - Nine lecturers provided printed handout material for distribution to participants totalling 106 pages that consisted of reprints, outlines, printed copies of slides, glossaries and bibliographies. The selection of appropriate study materials to accompany the lectures was left to the discretion of the lecturer. Lecturers supplied the course coordinator with one set of materials which were then duplicated in sufficient quantities.

Handout materials were mailed to registrants on a periodic basis to be received no later than one week before the lecture for which they were intended. All printed handout materials are included in Appendix C.

Implementation of the Course

Scheduling the Course

Following the establishment of a syllabus for the course, and after obtaining commitments from the prospective lecturers, the next step was to reserve time on the Educational Telephone Network of the University of Wisconsin. According to the final lecture outline, fifteen two-hour periods were needed.

Eight periods on alternate Tuesday evenings from 8 to 10 p.m. had been reserved for Extension Services in Pharmacy early in 1968 for regular programming by that department, and these were reassigned to be used for teaching the drug abuse telelecture course. An attempt was made to reserve seven additional Tuesday evening periods from 8 to 10 p.m., but only three were available. The additional four periods selected were on Thursdays from 8 to 10 p.m.

Ideally it was hoped that a regular schedule could be arranged, but the irregular Tuesday-Thursday schedule was the best that could be secured. During the course of the telelectures each communication to the registrants contained a reminder of the schedule.

Establishing Course Locations

As soon as a definite schedule for the telelectures had been established, the coordinator of the ETN circularized all possible receiving locations to determine their

availability for use as a possible location where registrants could attend the course.

Of the potential 121 ETN facilities, 118 indicated that they would cooperate in making their facilities available. From an economic standpoint it was evident that adjacent facilities with only two or three individuals attending could not be operative for the course. However, this would have eliminated or discouraged many individuals from participating in the course, so locations with as few as one person registered were utilized with the consent of the individual directly in charge of the location.

Cooperating Departments, Agencies and Organizations

When the Central Administration of the University requested that the course be open to all Wisconsin citizens, it was decided that the course would be offered under the sponsorship of University Extension's Health Sciences Unit which is comprised of Extension Services in Pharmacy, the Department of Nursing and the Department of Postgraduate Medicine. It was felt that this co-sponsorship would broaden the base of enrollment. In addition, other departments within University Extension as well as State Departments and organizations were contacted to determine their willingness to cooperate in making the telelecture course available to the general public.

The response was gratifying in that all those individuals contacted agreed to cooperate; each gave the impression that by cooperating its group had a part in making drug respect education available to the clientele they seek to serve. The name of each cooperator was listed in a prominent place in the brochure describing the course, and in the news releases distributed to publicize the course.

Publicity

University Extension's Office of Public Information agreed to publicize the course. They prepared two news releases for statewide distribution (Appendix D) and also prepared spot announcements for radio and TV. In addition, a general news release was distributed to the 72 county offices of University Extension's Division of Community Programs for local distribution.

Circularization of Brochures

The program and arrangements were completed by mid-October and the brochure describing the course (Appendix B) and providing information on course locations and registration was prepared and ready for distribution by early November. Twenty thousand brochures were printed: ten thousand were distributed through the sponsoring departments and the cooperating departments, agencies and organizations; and ten thousand were distributed by University Extension's

Division of Community Programs through the County Extension offices throughout the state.

Course Registration

Registration for the telelecture was handled by the Registration Center at University Extension's Wisconsin Center. Registrations were acknowledged on a daily basis and each registrant was assigned an identifying number. A master mailing list was maintained by the course office and was used to distribute course information and materials. Three different forms of the list were kept so as to facilitate locating individuals if necessary: 1) an alphabetical list by registrants' last names, 2) a serial list by registration number, and 3) alphabetical by location.

Local Course Conveners

One individual at each location was selected to serve as the local course convener. The broad duties of the convener were to be in charge of the course at his assigned location. Specifically, he had responsibility for operating the telephone equipment, showing slides, keeping attendance records for each session, and serving as the audio link between the registrants at his location, the studio moderator at Madison, and the lecturer.

The selection of local course conveners was handled by the programming department (Extension Services in Pharmacy)

with the cooperation of the Division of Community Programs. Many of the conveners were pharmacists or hospital-affiliated personnel who had previously participated in telelectures sponsored by Extension Services in Pharmacy, and some had even served as conveners for previous telelectures.

Prospective local course conveners were contacted by telephone or in person by the course coordinator or a local faculty member of the Division of Community Programs, and were sent a form letter explaining the convener's duties and responsibilities before the course began. Local course conveners were reimbursed for their registration fee.

The first few minutes of the first telelecture was a brief orientation period to acquaint conveners and registrants with the equipment and to explain the general operation and procedures to be followed throughout the course. Special periodic mailings were made to the conveners which contained slides to be shown, attendance sheets and announcements or special instructions. Copies of letters to course conveners are included in Appendix E.

Letters to Registrants

Two weeks prior to the first telelecture a form letter was sent to each registrant confirming his registration and assignment to a specific course location. A listing of all registrants had been compiled according to location and the page of this compilation on which the registrant's name appeared was sent to him. By using this method of informing

registrants of their course location assignment, it was possible to inform them, as well as the local course convener, of the other registrants who were attending at that location. Copies of the information letters sent to course registrants are included in Appendix F.

Course Operation

The telelectures originated from the University of Wisconsin Medical Communication Center at Madison. This writer and William L. Blockstein, Chairman of Extension Services in Pharmacy, alternated serving as studio moderator and were assisted by two technicians. At 7:45 p.m. each evening the course convened, the studio moderator at Madison asked the course conveners on the network at that time to check in by calling in the name of the city of their location. Usually 35 to 40 locations checked in early on the evening of each lecture. This early check-in procedure was used to determine if there were any problems on the network and to provide an opportunity for local course conveners to adjust the equipment or seek help in cases where transmission or reception problems were being encountered.

Promptly at 8 p.m. the telelectures began. Occasionally there were brief introductory announcements, but in most cases the lecturer for that evening was introduced immediately, followed by the playing of the taped lecture. The lectures ranged from 35 to 60 minutes; most were 40 to 45 minutes long.

About 10 minutes before the end of the lecture the studio technicians placed a telephone call to the lecturer and connected him into the network.

Discussion Period

At the conclusion of the playing of the tape, the studio moderator acknowledged the presence of the lecturer on the network and briefly explained the procedure which would be followed during the discussion period.

Some lectures generated more questions than others. The first several discussion periods had to be terminated due to a lack of time since the ETN closed down promptly at 10 p.m. However, as the course progressed the length of the discussion period ranged from one-half to three-quarters of an hour.

The discussion period involved audio contact among the lecturer, the studio moderator at Madison and the 72 local course conveners, but could be heard by everyone at all locations. The only exception to this was when a local course convener asked a question over the network, the audio at that particular location was cut out. This was no problem because in the majority of cases the lecturer, or the studio moderator at Madison, repeated the question.

Before the discussion period began, the studio moderator at Madison instructed all participants who had questions to write them on a piece of paper and hand them to their local course convener. Conveners were instructed to select

and ask the best questions when their location was called. If time remained after the roll call of locations was finished, the studio moderator asked for questions at random from the locations. The sequence of calling locations for questions varied each evening by starting the roll call of locations at different places in the alphabetical list. This procedure gave each location the same priority for asking questions.

Attendance

Each individual registered for the course was requested to sign an attendance sheet during each session. The local course convener had the responsibility of seeing that attendance records were kept and forwarded to Madison on a regular basis. When completed attendance sheets were received by the course office, the information was transferred to a master attendance sheet for that course location. These master attendance sheets are on file as a permanent record maintained by Extension Services in Pharmacy.

Certification of Attendance

Although no formal type of academic credit was given for attendance or participation in the telelecture course, a Certificate of Attendance and Participation (Appendix G) was sent to each registered student who attended ten of the fifteen telelectures. In several cases the course office was requested by a registrant to send a letter to an

agency or institution attesting to that individual's attendance.

Such agencies as the Wisconsin Pharmacy Internship Board, the Academy of General (medical) Practice, and the Florida Board of Pharmacy require participation in a professional continuing education activity, and the telelecture course was accepted by these agencies as satisfying their requirements. Also school boards, such as Baraboo and Green Bay, accepted participation in the telelecture as satisfying their requirements for in-service training. Several law enforcement officers indicated that they were receiving professional advancement credit for their participation in the telelecture course.

Evaluation of the Course

The objective of this investigation was to evaluate the success of the course "Problems in Drug Abuse." The criteria of success were based on whether or not participants, upon completing the course:

1. exhibited a significant gain in mean score on a knowledge test related to drug use and abuse.
2. produced a significant change in mean score on an instrument related to opinions about drug use and abuse.

3. held an opinion of satisfaction with the course.

Accordingly, three instruments were developed locally and submitted to two faculty members of the School of Pharmacy for criticism and suggestions. After making several minor modifications the instruments were reviewed by the Director and Associate Director of the Wisconsin Survey Research Laboratory for their criticism and suggestions. All the individuals to whom the instruments were submitted agreed that they were valid for the purpose for which they were intended.

Knowledge Test Related to Drug Abuse

The test consisted of ten multiple choice and ten matching items (Appendix F, page 250, Items 10 and 11). The test was designed to determine knowledge related to drug abuse and included items about the body response to and adverse effects of drugs and chemicals subject to abuse, drug jargon, Wisconsin law pertaining to drug abuse, and the source of abused drugs. The items were based on the content of the lectures presented. The basis for scoring the test was the number of items correct expressed as a percentage. The possible range of scores was from 0 to 100.

To determine the reliability of the test the Kuder-Richardson index of internal consistency or homogeneity (37) was computed using the formula

$$KR = \frac{n}{n-1}\left(\frac{s^2 - pq}{s^2}\right)$$

In this formula n is the number of items on the test, s^2 is the variance of the scores, and p and q are the proportion of subjects responding correctly and incorrectly, respectively, to each item.

This method was used for computation in preference to split-half methods since it does not depend upon the way in which the test is split into two halves; it provides an estimate of the average reliability for all possible combinations of splits. The Kuder-Richardson index of internal consistency for the test of knowledge about drug abuse was computed to be 0.71.

Opinionnaire About Drug Abuse

The opinionnaire consisted of 15 statements designed to determine opinions about various aspects of drug abuse (Appendix F, page 251, Item 12). It included statements relating to the need for legal control of drugs and chemicals subject to abuse, the function of law enforcement in curbing drug abuse, the methods of treatment and rehabilitation of drug abusers, the regimen of drug use which constitutes abuse, and the stringency of penalties for abusing drugs.

The statements were constructed by identifying, in the lectures, certain information about drug abuse and drug abusers which is considered to vary from individual to

individual. The basis for scoring the opinionnaire was the degree of agreement or disagreement with each statement expressed in terms of a five-point Likert-type scale: 1 - Strongly Agree, 2 - Agree, 3 - Uncertain, 4 - Disagree, and 5 - Strongly Disagree. The possible range of scores was from 15 to 75.

Opinionnaire About Satisfaction with the Course

The opinionnaire consisted of 15 statements relating to such aspects of the course as the comprehensiveness of the subject matter, value of the slides and handout materials, audio reception and physical facilities, day and time of meetings, and the telelecture method (Appendix F, page 256, Item 4).

The basis for scoring the opinionnaire was the degree of satisfaction or dissatisfaction with each statement expressed in terms of a five-point Likert-type scale: 1 - Very Satisfied, 2 - Satisfied, 3 - Uncertain, 4 - Dissatisfied, and 5 - Very Dissatisfied. The possible range of scores was from 15 to 75. Scores were interpreted as follows:

15 - 22 Very Satisfied
23 - 37 Satisfied
38 - 52 Uncertain
53 - 67 Dissatisfied
68 - 75 Very Dissatisfied

Administration of Instruments

The pre-course instruments were sent to the registrants along with a general letter confirming their registration and assignment to a specific course location. A first class stamped envelope was included for return of the completed instruments. The majority of these letters were mailed before January 13, 1969, eight days before the first lecture, with instructions to return the pre-course instruments before January 20, 1969, the day before the first lecture. Brief instructions for completing the instruments and information about the purposes of the instruments were contained in the covering letter.

The post-course instruments were mailed to all registrants three weeks after the last class period along with a general covering letter and certificate of attendance and participation, if one had been earned by the registrant (Appendix F). Again a first class stamped envelope was included for return of the completed instruments. The three-week delay in sending out the post-course instruments was necessitated by the fact that final attendance sheets had not been returned from several locations and it was impossible to determine which registrants had earned certificates.

A follow-up request for return of the post-course instruments was sent to all registrants who had not responded by August 6, 1969.

Data Analysis

The method of analysis of the data was the matched pair t test to determine the significance of mean gains on the pre and post instruments. The formula used for computation was

$$t = \bar{d} \Big/ \sqrt{s_d^2/N}$$

where $\bar{d}$ is the difference between the pre and post sample means, s_d^2 is the variance of the difference of the pre and post sample scores, and N is the sample size (38). The critical value selected for determining if a significant difference existed between pre and post means was at the 5 percent level. That is, calculated absolute values of t which were less than or equal to the critical values, indicated that the differences between the means were not significant. In other words, it was decided that t values having a probability of error of 0.05 or less were sufficient to warrant the decision that the mean difference scores were significant.

The one way analysis of variance technique was used to determine the significance of the variation between the mean gain scores of the groups into which the population was subsequently divided. The method of computation and the computed F values were interpreted using standard procedures (39). The 0.05 level of error was chosen to determine significance.

When the analysis produced a significant F value, the data were subjected to the Scheffe post hoc analysis (40) to determine where the significance existed since this information is not given by the analysis of variance technique.

The opinionnaire about satisfaction with the course was analyzed and a mean score and standard deviation was computed. In addition, the percent of individuals responding to each scale choice was determined to ascertain the majority opinion about satisfaction with the course.

CHAPTER IV

DATA AND RESULTS

Introduction

The purpose of this study was to determine the feasibility of utilizing the telelecture method to provide a course related to drug use and abuse to health professionals in Wisconsin. The planning and implementation of the course, "Problems in Drug Abuse," have been described in Chapter III. This chapter is concerned with the presentation of the data collected and used for the evaluation of the course.

Course Registrations

Although the official registration records for the course show that 756 individuals registered, a final survey of the records revealed the 729 individuals actually registered; there were 27 individuals who withdrew from the course. Figure 1 shows the geographic distribution of the 72 locations used for the course while Table 1 is an alphabetical list of the locations.

Attendance

A summary of the attendance records is shown in Table 2 and indicates that attendance dropped about 17 percent after the first five lectures, and fluctuated between about 56 and 67 percent during the remaining ten lectures. The

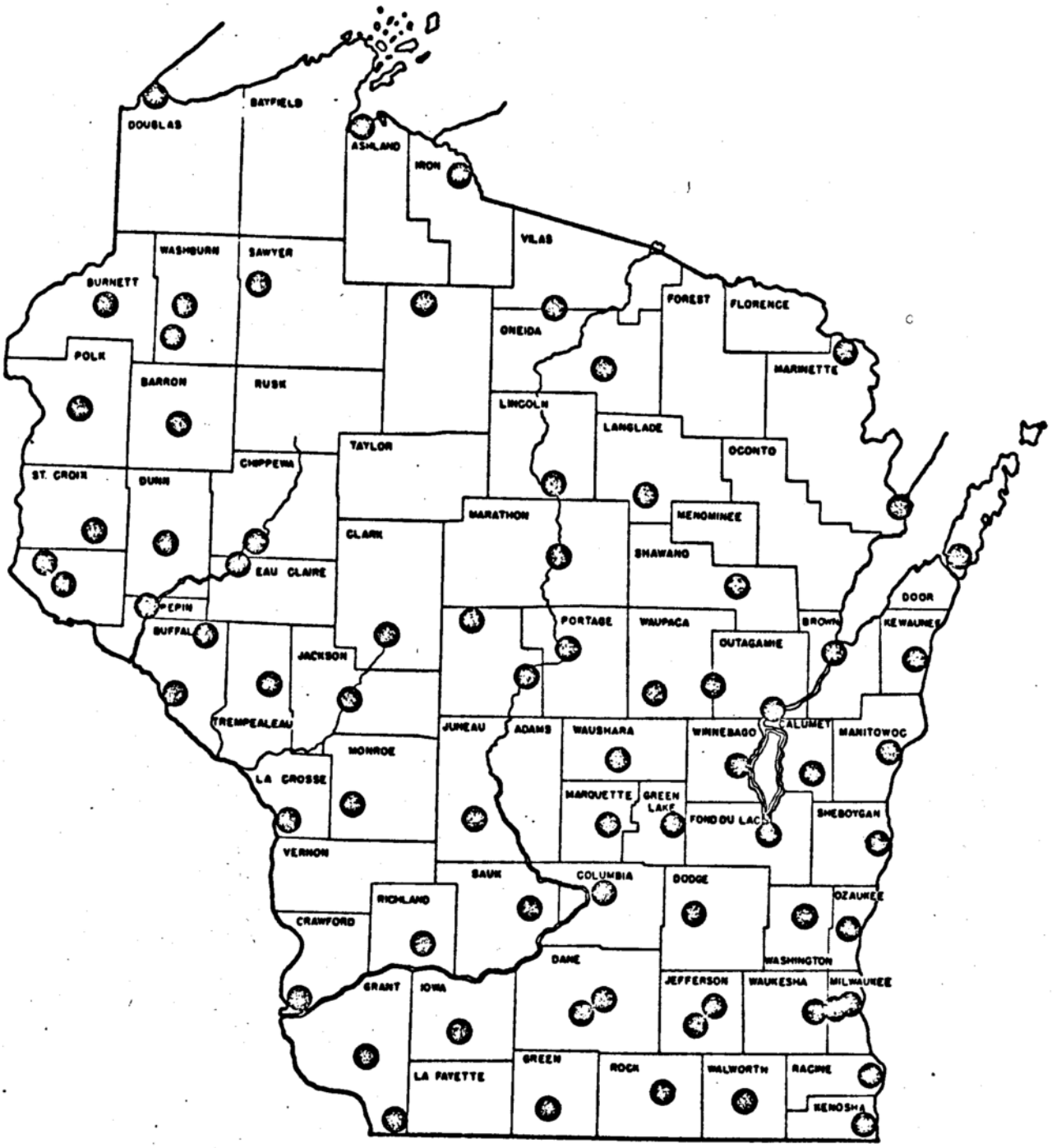

DOUGLAS
BAYFIELD
ASHLAND
IRON
VILAS
WASHBURN
SAWYER
BURNETT
FOREST
FLORENCE
ONEIDA
POLK
BARRON
RUSK
MARINETTE
LINCOLN
LANGLADE
TAYLOR
OCONTO
CHIPPEWA
ST. CROIX
DUNN
MARATHON
MENOMINEE
CLARK
SHAWANO
EAU CLAIRE
DOOR
PEPIN
PORTAGE
WAUPACA
BROWN
KEWAUNEE
BUFFALO
OUTAGAMIE
JACKSON
TREMPEALEAU
JUNEAU
ADAMS
WAUSHARA
WINNEBAGO
CALUMET
MANITOWOC
MONROE
LA CROSSE
MARQUETTE
GREEN LAKE
FOND DU LAC
SHEBOYGAN
VERNON
SAUK
COLUMBIA
DODGE
OZAUKEE
RICHLAND
CRAWFORD
WASHINGTON
DANE
GRANT
IOWA
JEFFERSON
WAUKESHA
MILWAUKEE
GREEN
ROCK
WALWORTH
RACINE
LA FAYETTE
KENOSHA

TABLE 1

ETN Locations at Which the 1969 Telelecture Course "Problems in Drug Abuse" Was Received

Alma	Fort Atkinson	Menomonie	Shawano
Antigo	Green Bay	Merrill	Sheboygan
Appleton	Green Lake	Milwaukee	Shell Lake
Ashland	Hayward	Mondovi	Sparta
Baldwin	Hazel Green	Monroe	Spooner
Balsam Lake	Hurley	Montello	Stevens Point
Baraboo	Janesville	Neillsville	Sturgeon Bay
Barron	Jefferson	New London	Superior
Beaver Dam	Kenosha	Niagara	Waukesha
Black River Falls	Kewaunee	Oshkosh	Waupaca
Chilton	La Crosse	Park Falls	Wausau
Chippewa Falls	Lancaster	Portage	Wautoma
Dodgeville	Madison General Hospital Wisconsin Center	Port Washington	Wauwatosa
Durand		Prairie du Chien	Webster
Eau Claire	Manitowoc	Racine	West Bend
Elkhorn	Marinette	Rhinelander	Whitehall
Ellsworth	Marshfield	Richland Center	Wisconsin Rapids
Fond du Lac	Mauston	River Falls	Woodruff

TABLE 2

Number and Percent of Registrants Attending Each Session of the Course

Session Number	Date	Total Registrants Present	
		Number	Percent
1	January 21	617	84.6
2	February 11	605	83.0
3	February 25	587	80.5
4	March 11	549	75.3
5	March 27	497	68.2
6	April 3	406	55.7
7	April 8	470	64.5
8	April 17	456	62.6
9	April 22	488	66.9
10	April 29	476	65.3
11	May 1	445	61.0
12	May 13	465	63.8
13	May 20	428	58.7
14	May 22	402	55.1
15	May 27	440	60.4

relatively low attendance on April 3 might be attributed to the Spring holiday, Easter being on April 6. Four hundred and eighty-four individuals or 66.4 percent of the 729 registrants attended ten or more of the fifteen lectures.

Return of Instruments

Six hundred and sixteen of the registrants (84.5 percent) returned the pre-course instruments and 323 returned the post-course instruments. Of these totals, 307 registrants (42.1 percent) returned both pre- and post-course instruments.

Selection of the Sample

The concept of selecting a sample in time was used in this study to determine the feasibility of utilizing the telelecture method for providing continuing education for health professionals. That is, the statistical information obtained from this study will be used to estimate the outcomes to be expected when offering a similar course by this method at some later date.

The sample consisted of the 272 registrants who attended ten of the fifteen lectures and completed and returned both the pre- and post-course instruments.

Throughout the remainder of this work the terms "sample" and "participants" are used interchangeably.

Occupational Classification of the Population Studied

The course, "Problems in Drug Abuse," was designed specifically for health professionals. However, as previously stated, the Central Administration of the University requested that course registration be open to all Wisconsin citizens. When registrations were received there were many more non-health professionals than anticipated. For this reason it was decided to group the participants into occupational classifications as shown in Table 3 in order to view the possible differences existing among the groups with respect to their responses to the various instruments. Tables 4 through 8 list the occupational subclassifications of the groups.

TABLE 3

Occupational Classification of the Participants in the Course

	Number	Percent
Teachers	74	27.2
Health Professionals	68	25.0
Law Enforcement Officers	51	18.8
Counselors	35	12.9
Others	44	16.2
Total	272	100.1*

*Due to rounding.

TABLE 4

Occupational Subclassification of the Teachers in the Course

Level and Subject Area	Number	Percent
Elementary School		
Music	1	1.4
Not specified	27	36.5
Junior High School		
Science/Mathematics	5	6.8
Physical Education/Health	5	6.8
Social Science	3	4.1
English	2	2.7
Instrumental Music	1	1.4
Senior High School		
Science/Mathematics	6	8.1
Physical Education/Health	4	5.4
English	3	4.1
Home Economics	2	2.7
Business	1	1.4
Driver Education	1	1.4
Industrial Arts	1	1.4
Special Education	1	1.4
Vocational School		
Not specified	1	1.4
College		
Biology	1	1.4
Electrical Engineering	1	1.4
Physical Education/Health	1	1.4
Sociology	1	1.4
Not Specified	6	8.1
Total	74	100.7*

*Due to rounding.

TABLE 5

Occupational Subclassification of the Health Professionals in the Course

	Number	Percent
Physicians	2	2.9
Pharmacists		
Retail	28	41.2
Hospital	7	10.3
Nurses	31	45.6
Total	68	100.0

TABLE 6

Occupational Subclassification of the Law Enforcement Officers in the Course

	Number	Percent
Law Enforcement Officers	49	96.1
Deputy Sherriff	1	2.0
Attendance Officer	1	2.0
Total	51	100.1*

*Due to rounding.

TABLE 7

Occupational Subclassification of the Counselors in the Course

	Number	Percent
Social Workers	17	48.6
Guidance Counselors		
High School	8	22.9
College	1	2.9
Probation and Parole Agents	3	8.6
Probation Officers	2	5.7
Alcoholism Counselors	2	5.7
Parole Agent	1	2.9
Parole Board Member	1	2.9
Total	35	100.2*

*Due to rounding.

TABLE 8

Occupational Subclassification of the Others in the Course

	Number	Percent
Housewives	10	22.7
Clergymen	5	11.4
County Extension Agents	4	9.1
School Administrators	4	9.1
Health Educators	3	6.8
Laboratory Technicians	3	6.8
Clinical Psychologists	2	4.6
Secretaries	2	4.6
College Junior	1	2.3
College Administrator	1	2.3
Editor	1	2.3
Farmer	1	2.3
Lawyer	1	2.3
Production Liaison Engineer	1	2.3
Reformatory Employee	1	2.3
School Psychologist	1	2.3
Salesman	1	2.3
YMCA Program Director	1	2.3
Youth Adult Director	1	2.3
Total	44	100.4*

*Due to rounding.

Evaluation of the Course

In order to determine the feasibility of utilizing the telelecture method for providing continuing education courses in health-related subjects, criteria to measure the success of the telelecture course "Problems in Drug Abuse" were established. These criteria were based on whether or not the participants, upon completing the course,

1) exhibited a significant gain in mean score on a knowledge test related to drug abuse.

2) produced a significant change in mean score on an instrument related to opinions about drug abuse.

3) held an opinion of satisfaction with the course.

The remainder of this chapter presents an analysis of the data under the following headings: 1) Knowledge Related to Drug Abuse, 2) Opinions About Drug Abuse, and 3) Opinions About Satisfaction with the Course. The data are presented for each of the five occupational groups as well as for the Total Sample Studied.

Knowledge Related to Drug Abuse

All of the occupational groups as well as the combined results of all of the groups (Total Sample Studied) exhibited significant gains in mean scores on the knowledge test

related to drug abuse as shown in Table 9. It is noted that the group with the lowest mean pretest score (Teachers) showed the greatest gain and the group with the highest mean pretest score (Health Professionals) showed the least gain.

This lack of comparable progress by the Health Professionals could be attributed to the fact that they have some familiarity with the subject matter and were not motivated to study and consequently learn the material presented in the course. This fact is also apparent with the Law Enforcement Officers who also have some familiarity with the subject matter as well as some training in drug abuse control and who exhibited a relatively high mean pretest score and a relatively small gain (8.3 percent).

Examination of the standard deviation of the mean posttest scores for each individual group as well as for the Total Population Studied indicates that the maximum posttest scores were about the same and ranged from 88 to 90 percent.

Viewing the data in Table 9 it appears that the groups are quite different when the mean gain scores are compared. A one way analysis of variance as shown in Table 10 revealed that significant differences existed somewhere among the groups, but when the data were subjected to the Scheffe post hoc procedure the only differences which were significant were between the Teachers and the Health Professionals and the Teachers and the Law Enforcement Officers. This is as expected since the gain score of the Teachers (19.4 per-

TABLE 9

Means, Standard Deviations and Gain Scores Earned on the Knowledge Test Related To Drug Abuse by the Occupational Groups

(Total Possible Score was 100)
(Alpha = 0.05)

	Teachers N=74		Health Professionals N=68		Law Enforcement Officers N=51		Counselors N=35		Others N=44		Total Sample Studied N=272	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Pre	55.1	13.5	74.0	11.4	69.8	13.7	61.9	17.9	62.0	15.5	64.6	15.8
Post	74.5	14.7	79.6	9.1	78.1	11.4	76.6	11.2	73.2	14.7	76.5	12.6
Gain	19.4	17.0	5.6	11.3	8.3	14.9	14.7	17.1	11.2	16.8	11.9	16.1
t (calculated)	9.8		4.1		4.0		5.1		4.4		12.3	
t (critical)	2.0		2.0		2.0		2.0		2.0		2.0	

TABLE 10

Summary of the Analysis of Variance of the Mean Gain Scores Earned by the Occupational Groups on the Pre- and Posttest of Knowledge Related to Drug Abuse (Alpha = 0.05)

Variable (Mean Gain Scores)	D.F.	Sum of Squares	Mean Square	F	F (Critical)
Between Groups	4	7,680	1,920	8.2	2.4
Within Groups	267	62,500	234		
Total	271	70,180			

cent) was more than double that of the Law Enforcement Officers (8.3 percent) and more than triple that of the Health Professionals (5.6 percent).

An analysis of the number of individuals in each group who showed a gain, no change, or a loss in score from the pre- to the posttest of knowledge related to drug abuse is shown in Table 11. Those groups with the greatest percentage of individuals demonstrating either no change or a loss in score on the posttest included the Health Professionals (39.7 percent), the Others (34.0 percent), and the Law Enforcement Officers (33.3 percent).

TABLE 11

Percent of Participants Exhibiting a Gain, No Change, or a Loss on the Posttest of Knowledge Related to Drug Abuse

	Gain	No Change	Loss	Total
Teachers (N=74)	85.1	6.8	8.1	100.0
Health Professionals (N=68)	60.3	16.2	23.5	100.0
Law Enforcement Officers (N=51)	66.7	9.8	23.5	100.0
Counselors (N=35)	80.0	5.7	14.3	100.0
Others (N=44)	65.9	13.6	20.4	99.9*
Total Sample Studied (N=272)	71.7	10.7	17.6	100.0

*Due to rounding.

Since the group Others did show a relatively high mean gain score on the knowledge test (11.2 percent), it is evident that the scores of the individuals in the group who exhibited gains on the posttest were sufficiently high in order to offset the no change and loss scores by the relatively large number of individuals in the group (34.0 percent).

Opinions About Drug Abuse

The difference in mean scores on the pre- and post-opinionnaire about drug abuse was significant for the Total Sample Studied as can be seen in Table 12. However, when the occupational groups were considered individually the differences in mean scores were significant for the Teachers, Law Enforcement Officers, and Others, but were not significant for the Health Professionals, or the Counselors.

. This lack of significant difference in mean scores on the opinionnaire by these latter two groups might be attributed to the fact that the individuals in both groups function to some extent as advisers to the public in matters related to drug use and abuse. In this capacity they may consider themselves as experts and the slight brush with the subject matter of drug use and abuse was not sufficient to affect their scores on the opinionnaire.

Although the variation among the mean difference scores of the occupational groups was small, the data were subjected to an analysis of variance to determine if, in fact, the variation was significant. The analysis produced an F value of 1.4 ($F_{critical} = 2.4$) as shown in Table 13 which indicated no significant variation among the mean difference scores of the occupational groups.

Since the difference in mean score on the pre- and postopinionnaire was significant for the Total Sample Studied

TABLE 12

Means, Standard Deviations and Mean Differences Earned on the Opinionnaire About Drug Abuse by the Occupational Groups
(Possible Score Range: 15 - Strongly Agree, 75 - Strongly Disagree)

	Teachers N=74		Health Professionals N=68		Law Enforcement Officers N=51		Counselors N=35		Others N=44		Total Sample Studied N=272	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Pre	40.1	4.9	41.6	4.8	41.8	4.5	44.7	7.1	43.4	5.8	41.9	5.5
Post	42.7	5.2	42.7	4.5	43.3	5.1	45.1	7.6	45.6	4.6	43.6	5.4
Difference	2.6	4.9	1.1*	5.3	1.5	4.6	0.4*	6.0	2.2	4.0	1.7	5.0
t (calculated)	4.4		1.7		2.3		0.5		3.8		5.5	
t (critical)	2.0		2.0		2.0		2.0		2.0		2.0	

*The difference in mean score is not significant at the 0.05 level.

TABLE 13

Summary of the Analysis of Variance of the Mean Difference Scores Exhibited by the Occupational Groups on the Pre- and Postopinionnaire About Drug Abuse (Alpha = 0.05)

Variable (Mean Difference Scores)	D.F.	Sum of Squares	Mean Square	F	F (Critical)
Between Groups	4	145	36.2	1.5	2.4
Within Groups	267	6,649	24.9		
Total	271	6,794			

but not for all of the occupational groups, the scores on the opinionnaire were subjected to an item analysis. This was done to determine which groups exhibited a significant difference of opinion on the various statements. The analysis produced the following information.

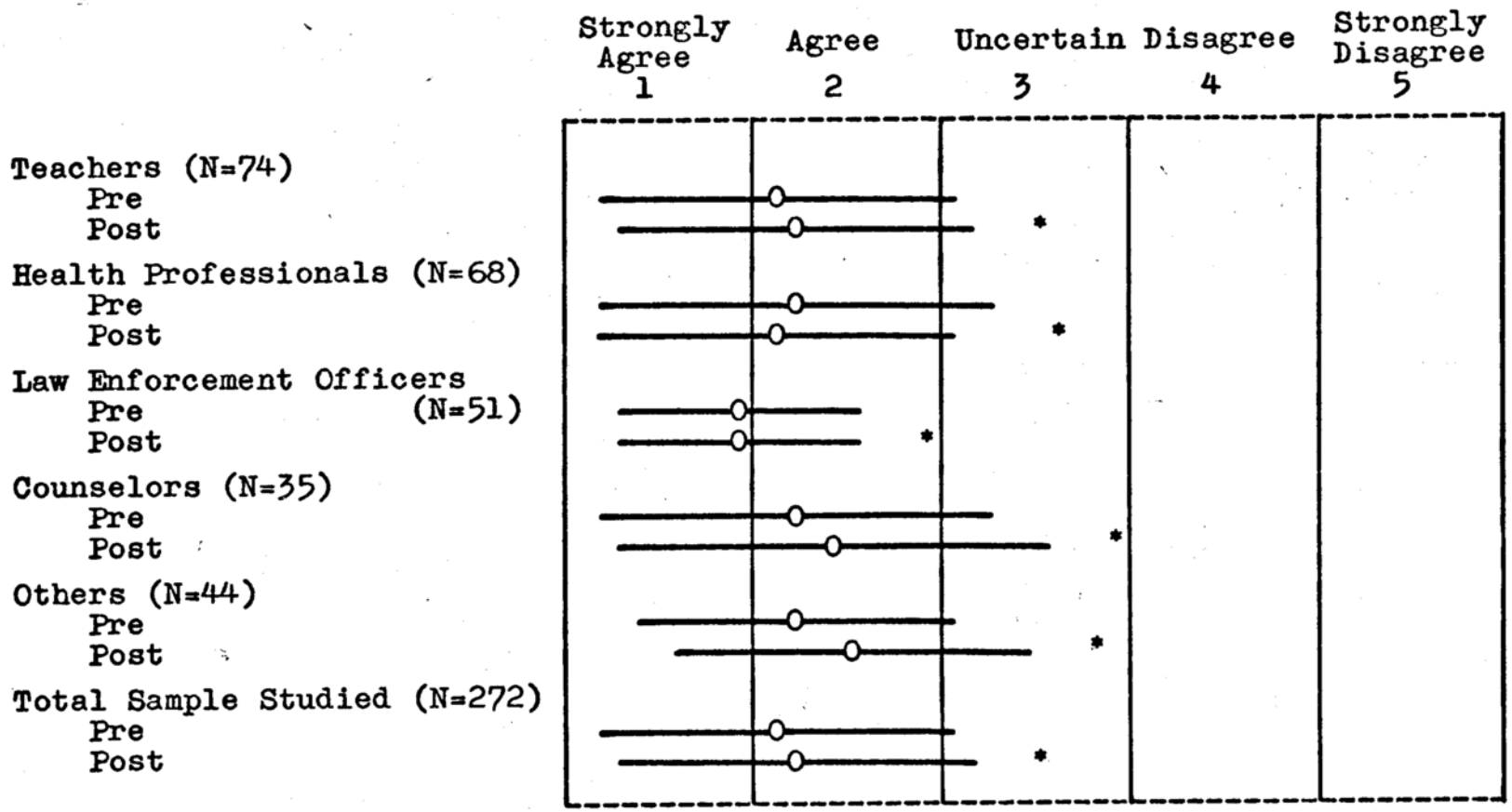
Statement 1. All therapeutic drug substances having abuse potential should be strictly controlled by law.

The Total Sample Studied as well as all of the occupational groups except the Law Enforcement Officers agreed with the statement. The Law Enforcement Officers strongly agreed with the statement and exhibited no difference in mean score after having taken the course as can be seen in Figure 2. None of the mean difference scores were significant.

Figure 2

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 1. All therapeutic drug substances having abuse potential should be strictly controlled by law.)



* The difference in mean score is not significant at the 0.05 level.

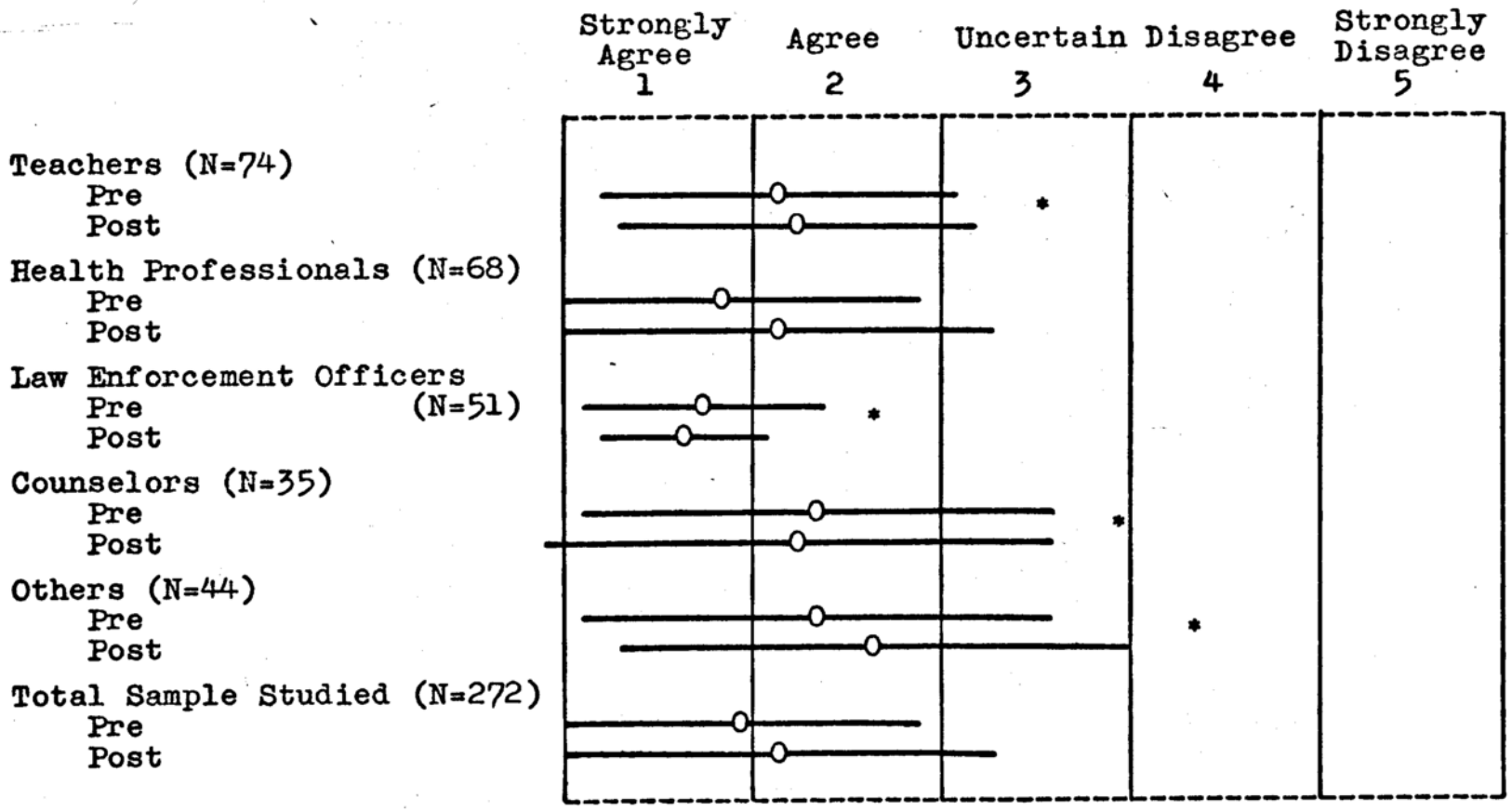
Statement 2. Laws governing the distribution, manufacture and use of abused substances which have no legitimate medical use - heroin, marihuana, LSD, etc. - should be equally stringent.

Before taking the course the Teachers, Counselors, and Others agreed and the Health Professionals and Law Enforcement Officers strongly agreed with the statement. Even though the only significant change of opinion by the occupational groups was exhibited by the Health Professionals, the result for the Total Sample Studied was a significant change in mean score indicating moderation from strongly agree to agree as shown in Figure 3.

Figure 3

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 2. Laws governing the distribution, manufacture and use of abused substances which have no legitimate medical use--Heroin, marihuana, LSD, etc.--should be equally stringent.)



* The difference in mean score is not significant at the 0.05 level.

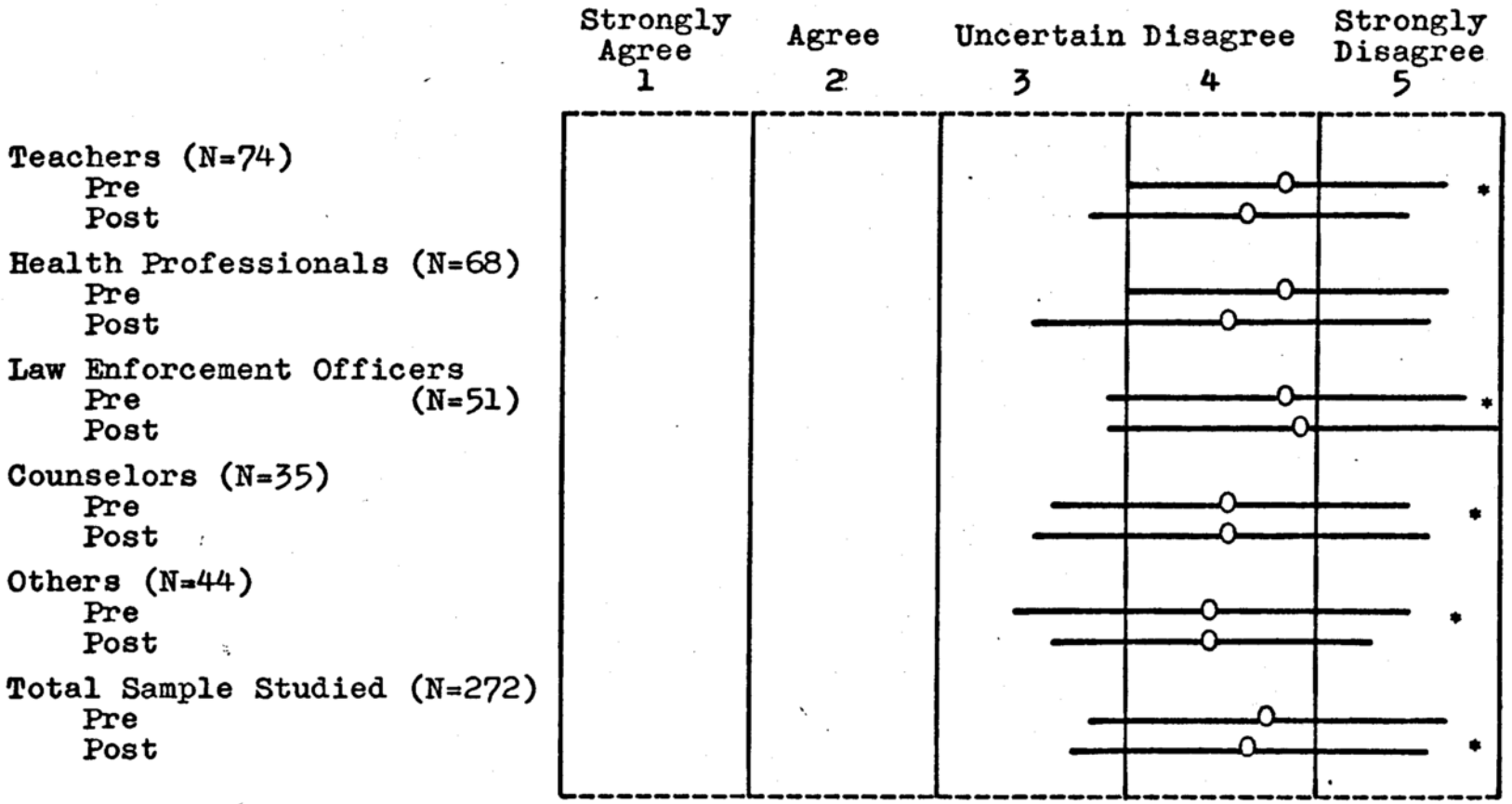
Statement 3. The unrestricted personal use of marihuana should be legal.

The Total Sample Studied as well as all of the occupational groups disagreed with the statement before and after having taken the course. It is interesting to note that neither the Counselors nor the Others exhibited any difference in mean scores after taking the course. Figure 4 shows that the only significant difference in mean score was produced by the Health Professionals who did not change their opinion of disagreement, but indicated a leaning toward uncertainty about the statement.

Figure 4

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 3. The unrestricted personal use of marihuana should be legal.)



* The difference in mean score is not significant at the 0.05 level.

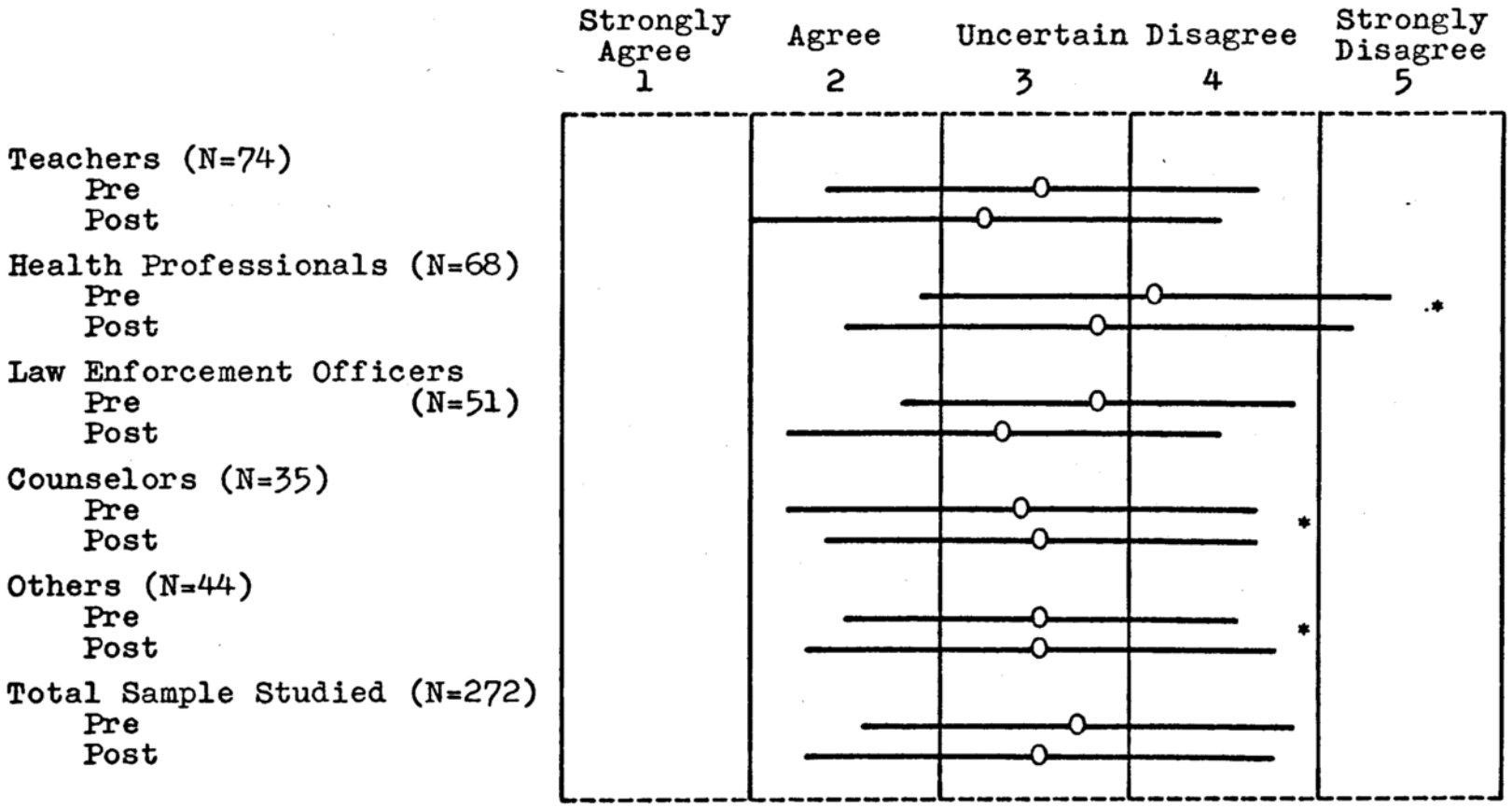
Statement 4. The use of two Aspirin Tablets each night before retiring constitutes abuse of Aspirin.

Before taking the telelecture course the Total Sample Studied and all of the occupational groups except the Health Professionals were uncertain about their agreement with the statement; the Health Professionals disagreed with the statement as shown in Figure 5. Although the Total Sample Studied indicated a significant difference in mean score after taking the course, only the Teachers and Law Enforcement Officers produced a similar significant difference which in all three cases indicated a shift toward agreement with the statement.

Figure 5

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 4. The use of two Aspirin Tablets each night before retiring constitutes abuse of Aspirin.)



* The difference in mean score is not significant at the 0.05 level.

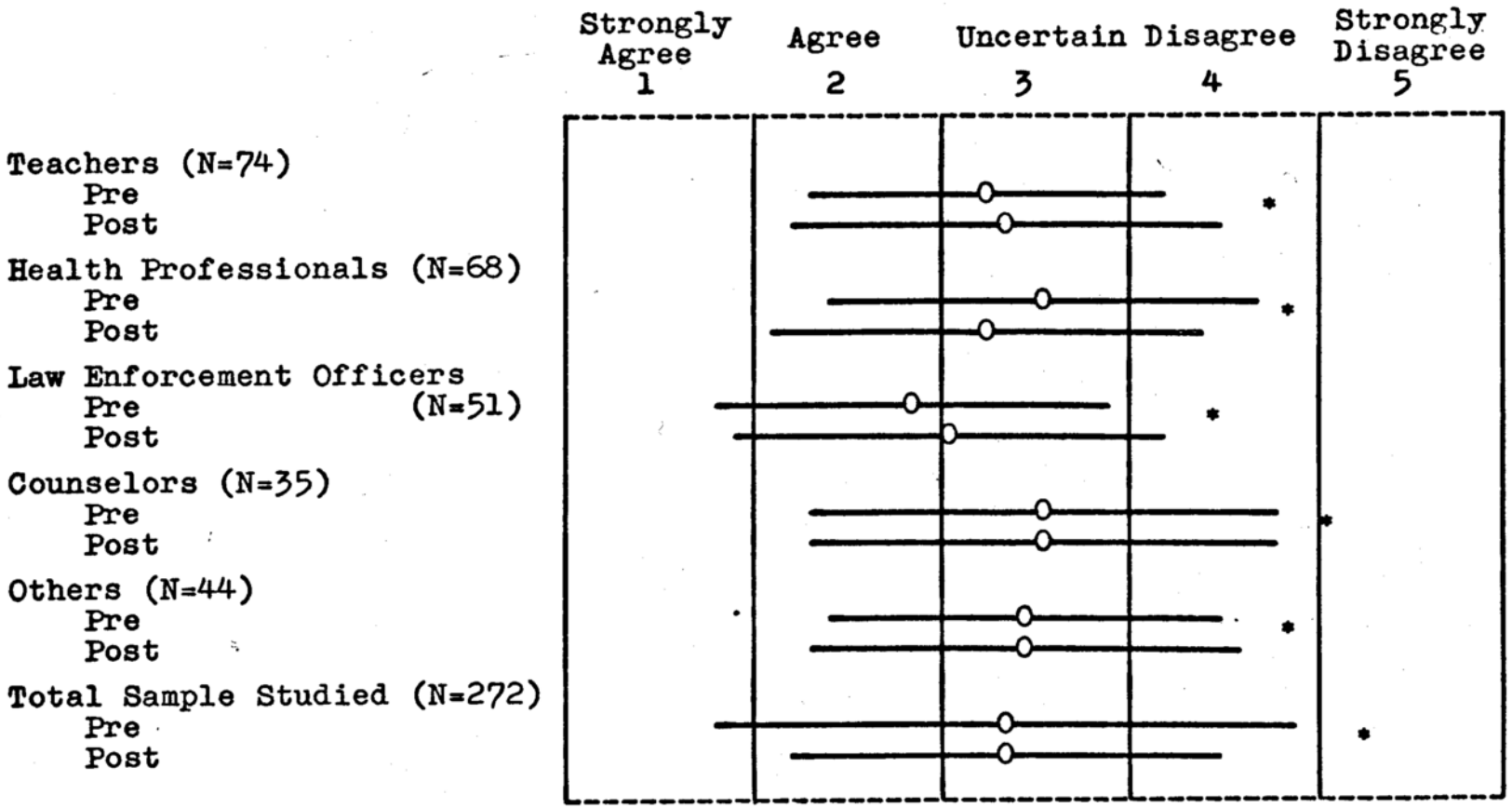
Statement 5. The occasional use of drugs and chemicals for non-medical purposes is classified as drug abuse.

Figure 6 reveals that the Total Sample Studied as well as all of the occupational groups except the Law Enforcement Officers indicated that they were uncertain about their agreement with the statement; the Law Enforcement Officers agreed with the statement. The only differences in mean scores were exhibited by the Teachers, Health Professionals, and Law Enforcement Officers but they were not significant.

Figure 6

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 5. The occasional use of drugs and chemicals for non-medical purposes is classified as drug abuse.)



* The difference in mean score is not significant at the 0.05 level.

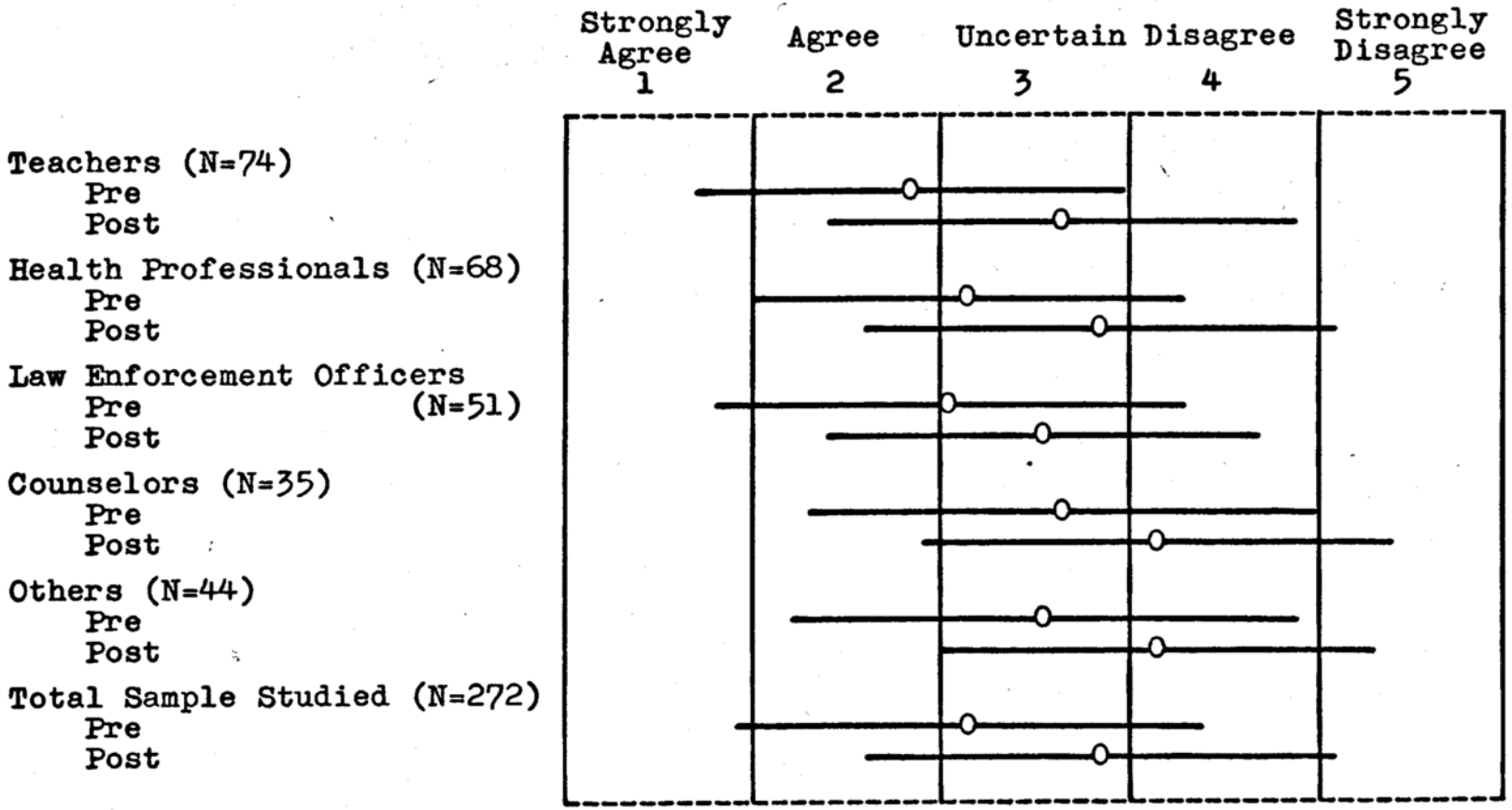
Statement 6. The penalties imposed on the abusers of marihuana should be made more stringent.

The results indicate that the differences in mean scores for the Total Sample Studied as well as for all of the occupational groups were significant. It can be seen in Figure 7 that the Teachers agreed with the statement before taking the course but were uncertain about the statement after completing the course. The Counselors and Others were uncertain about their agreement with the statement before taking the course but disagreed with the statement after the course. The Health Professionals and the Law Enforcement Officers, like the Total Sample Studied, remained uncertain about their agreement with the statement but each of these two groups indicated a shift toward disagreement with the statement after the course.

Figure 7

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 6. The penalties imposed on the abusers of marihuana should be made more stringent.)



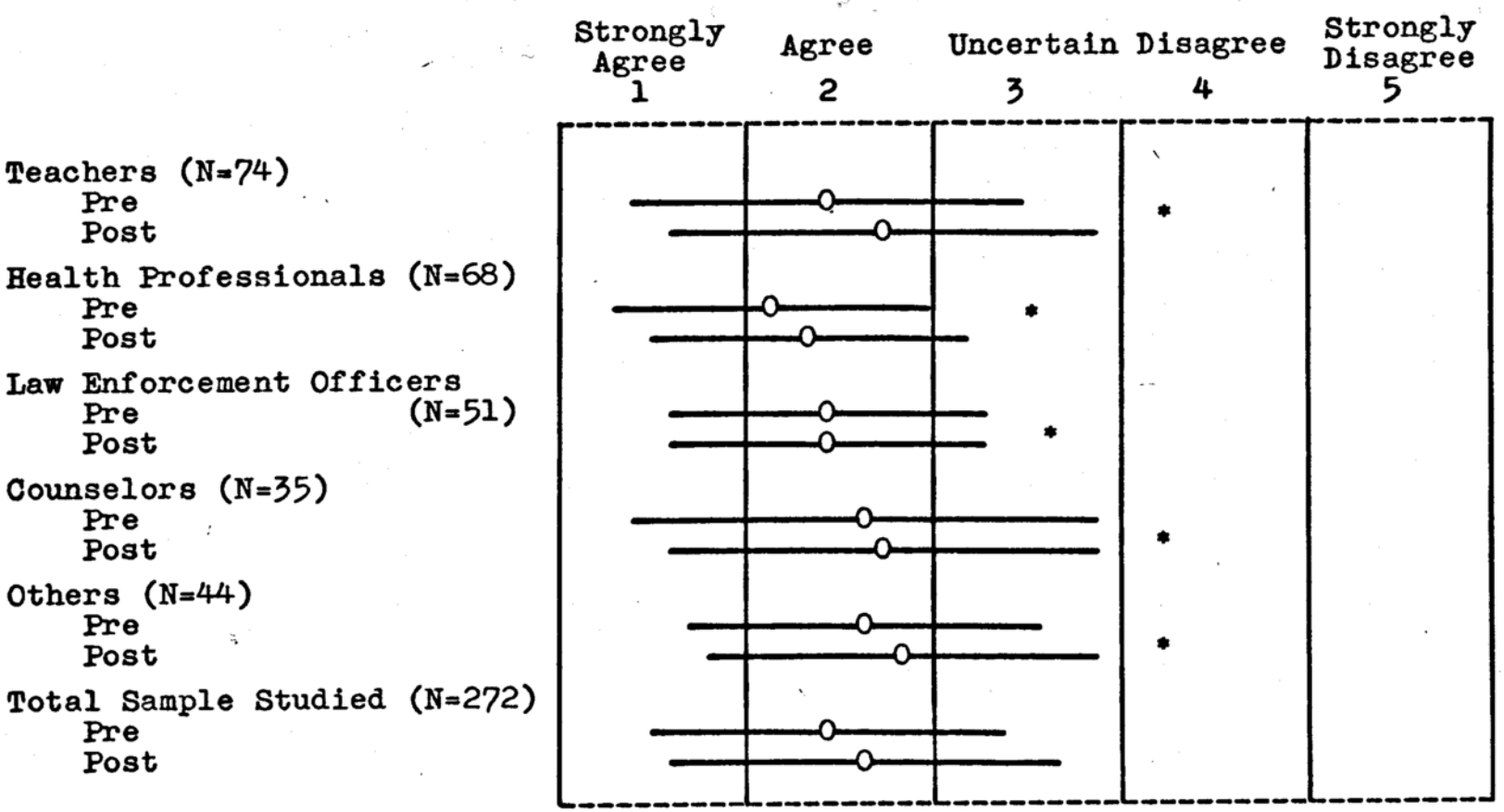
Statement 7. Drug "pushers" actively attempt to entice the uninitiated into using drugs.

The Total Sample Studied as well as all of the individual occupational groups indicated that they agreed with the statement before and after completing the course. Figure 8 shows that there was no difference in the mean scores of the Law Enforcement Officers and the differences in mean scores of the remaining occupational groups were not significant. However, when the data were combined for all of the occupational groups (Total Sample Studied) the difference in mean score was significant but still indicated agreement with the statement.

Figure 8

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 7. Drug "pushers" actively attempt to entice the uninitiated into using drugs.)



* The difference in mean score is not significant at the 0.05 level.

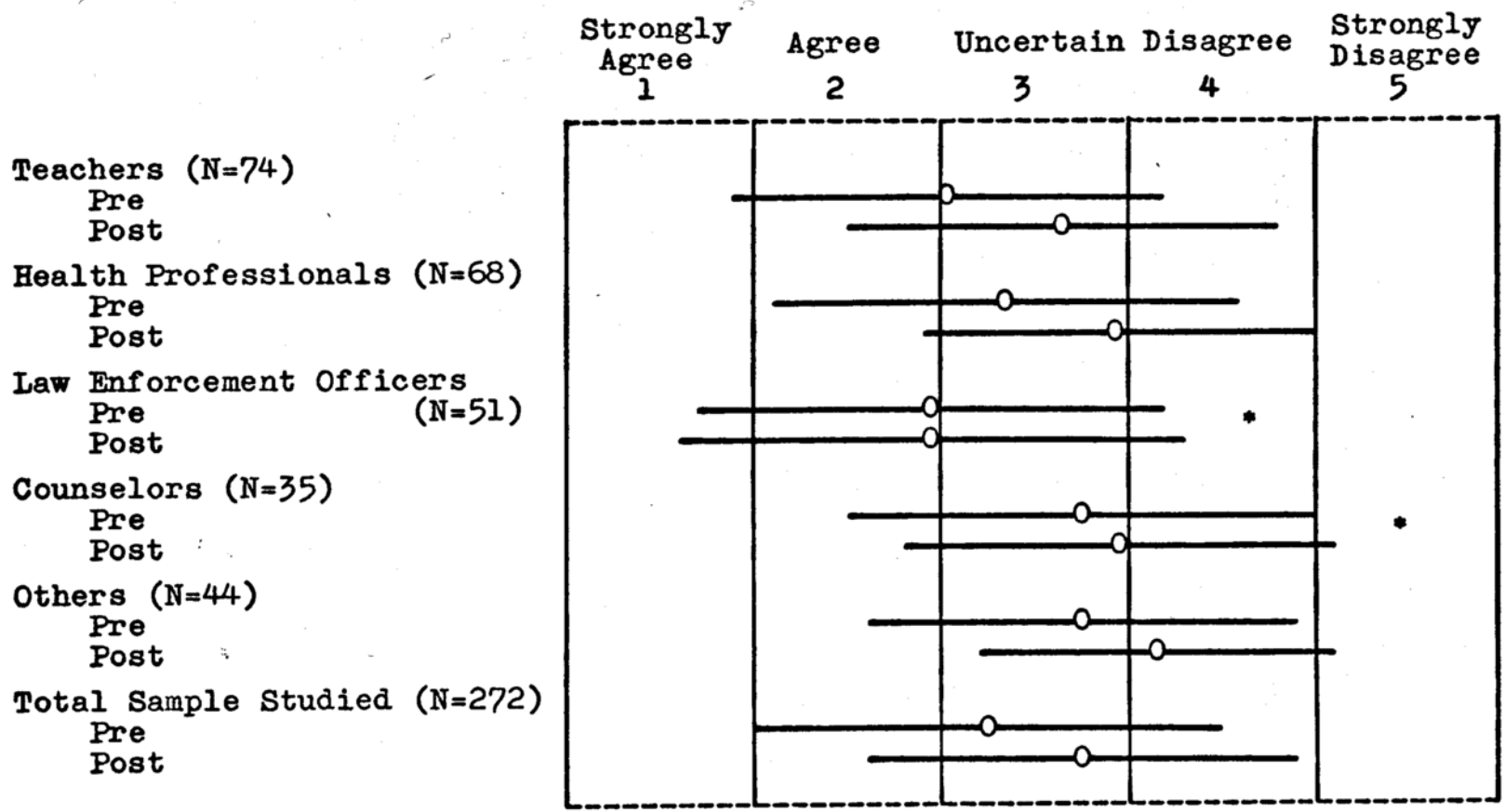
Statement 8. Abusers of hallucinogenic drugs are law breakers and should be treated as criminals.

Figure 9 reveals that the Total Sample Studied as well as all of the occupational groups except the Law Enforcement Officers indicated that they were uncertain about their agreement with the statement before taking the course. The Law Enforcement Officers agreed with the statement before and after taking the course as evidenced by no difference in mean score. All of the other groups as well as the Total Sample Studied remained uncertain about the statement after the course except the Others who disagreed with the statement. All of these differences were significant except for the Counselors.

Figure 9

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 8. Abusers of hallucinogenic drugs are law breakers and should be treated as criminals.)



* The difference in mean score is not significant at the 0.05 level.

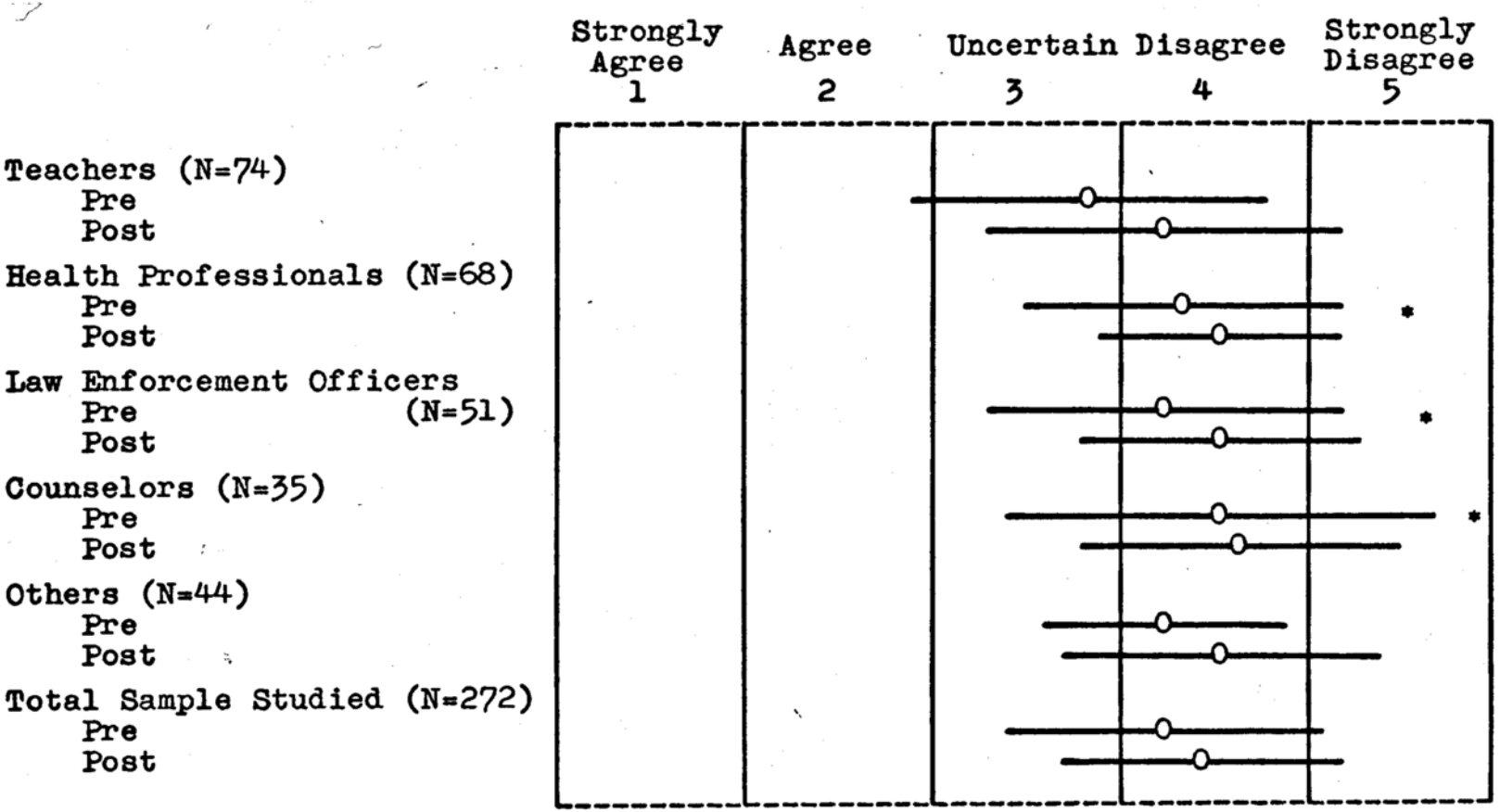
Statement 9. Abusers of opiate drugs have an increased sex drive and inclination.

With the exception of the Teachers, all of the other occupational groups as well as the Total Sample Studied disagreed with the statement before taking the telelecture course as shown in Figure 10; the Teachers indicated that they were uncertain about the statement. After the course the Health Professionals, Law Enforcement Officers, and Counselors indicated no significant difference of opinion, but the Teachers indicated that they disagreed with the statement. The Others and the Total Sample Studied exhibited a significant difference in mean score but their opinion did not change from disagreement with the statement.

Figure 10

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 9. Abusers of opiate drugs have an increased sex drive and inclination.)



* The difference in mean score is not significant at the 0.05 level.

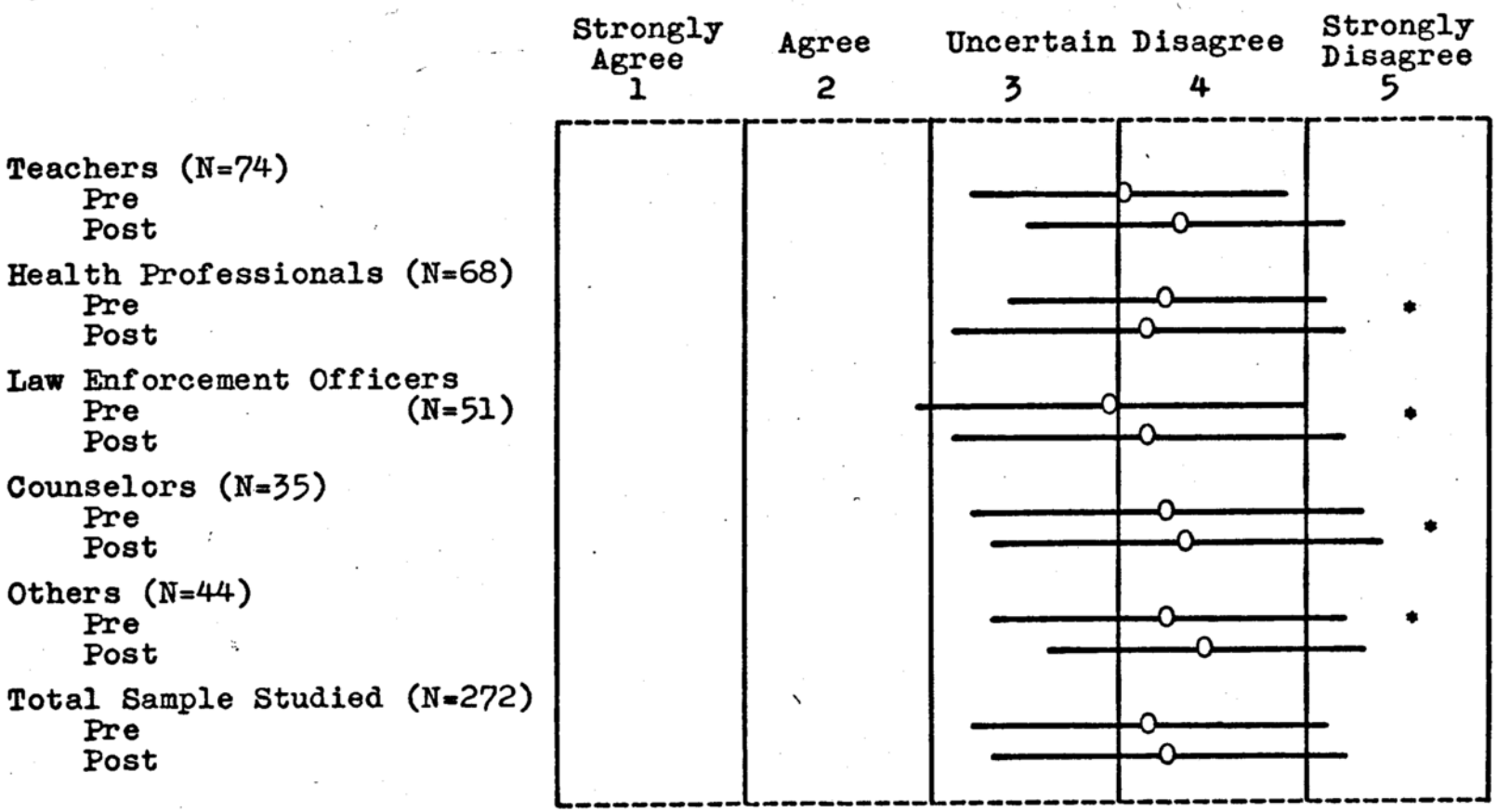
Statement 10. Drug abusers are generally either in the lower economic classes or bizarre personality types.

Before taking the telelecture course the Total Sample Studied as well as all of the occupational groups except the Law Enforcement Officers indicated that they disagreed with the statement; the Law Enforcement Officers were uncertain as shown in Figure 11. After the course the only occupational group indicating a significant difference in mean score was the Teachers who shifted toward more positive disagreement with the statement. The result of combining the data for all of the occupational groups (Total Sample Studied) revealed a significant difference in mean score with the same pattern as shown by the Teachers.

Figure 11

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 10. Drug abusers are generally either in the lower economic classes or bizarre personality types.)



* The difference in mean score is not significant at the 0.05 level.

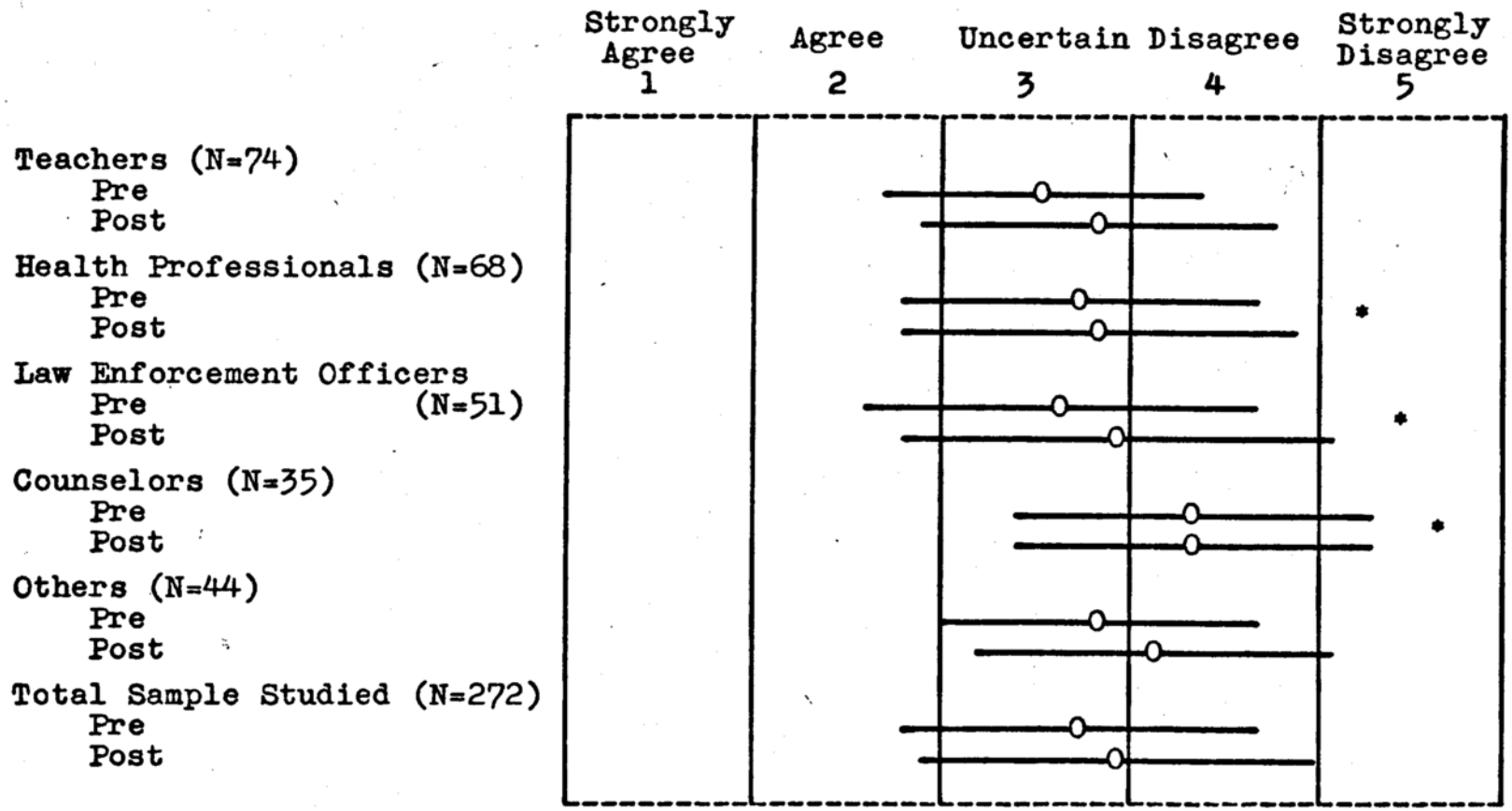
Statement 11. Drug abusers are generally known to commit violent crimes.

The Counselors disagreed with the statement before taking the course, but the remaining occupational groups and the Total Sample Studied indicated uncertainty about their agreement with the statement as shown in Figure 12. The only significant differences in mean scores after the course were exhibited by the Teachers and Others; the Teachers remained uncertain about the statement but the Others disagreed with the statement. The combined results for all the occupational groups (Total Sample Studied) showed that it remained uncertain about its agreement with the statement.

Figure 12

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 11. Drug abusers are generally known to commit violent crimes.)



* The difference in mean score is not significant at the 0.05 level.

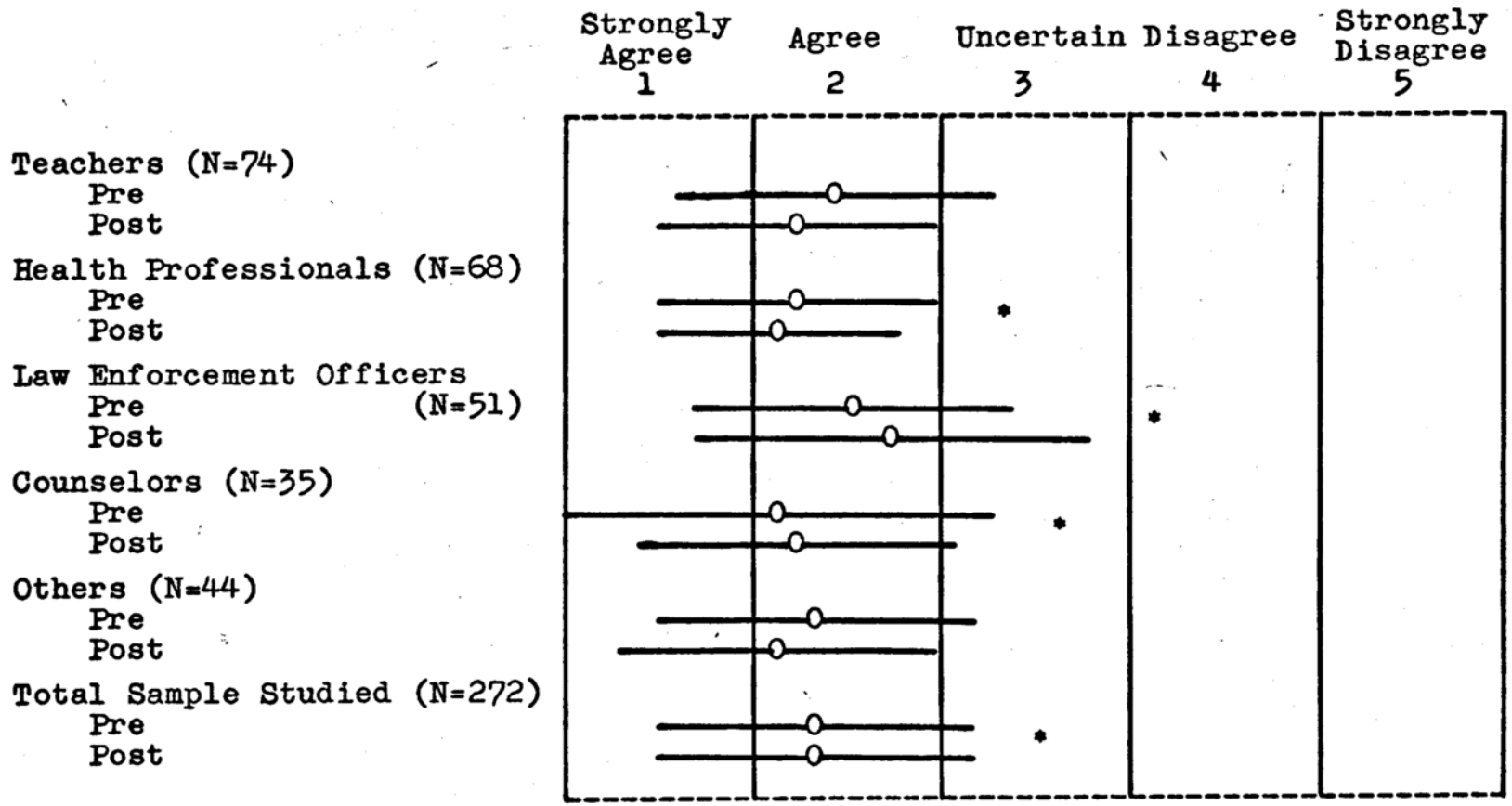
Statement 12. Drug abusers are human beings in distress and are entitled to the best help that can be afforded them.

Before taking the course all of the occupational groups as well as the Total Sample Studied agreed with the statement as shown in Figure 13. The only significant differences in mean scores were exhibited by the Teachers and the Others, but the differences were not sufficient to indicate a change of opinion about their agreement with the statement.

Figure 13

Mean Scores (O) and Standard Deviations (—O—) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 12. Drug abusers are human beings in distress and are entitled to the best help that can be afforded them.)



* The difference in mean score is not significant at the 0.05 level.

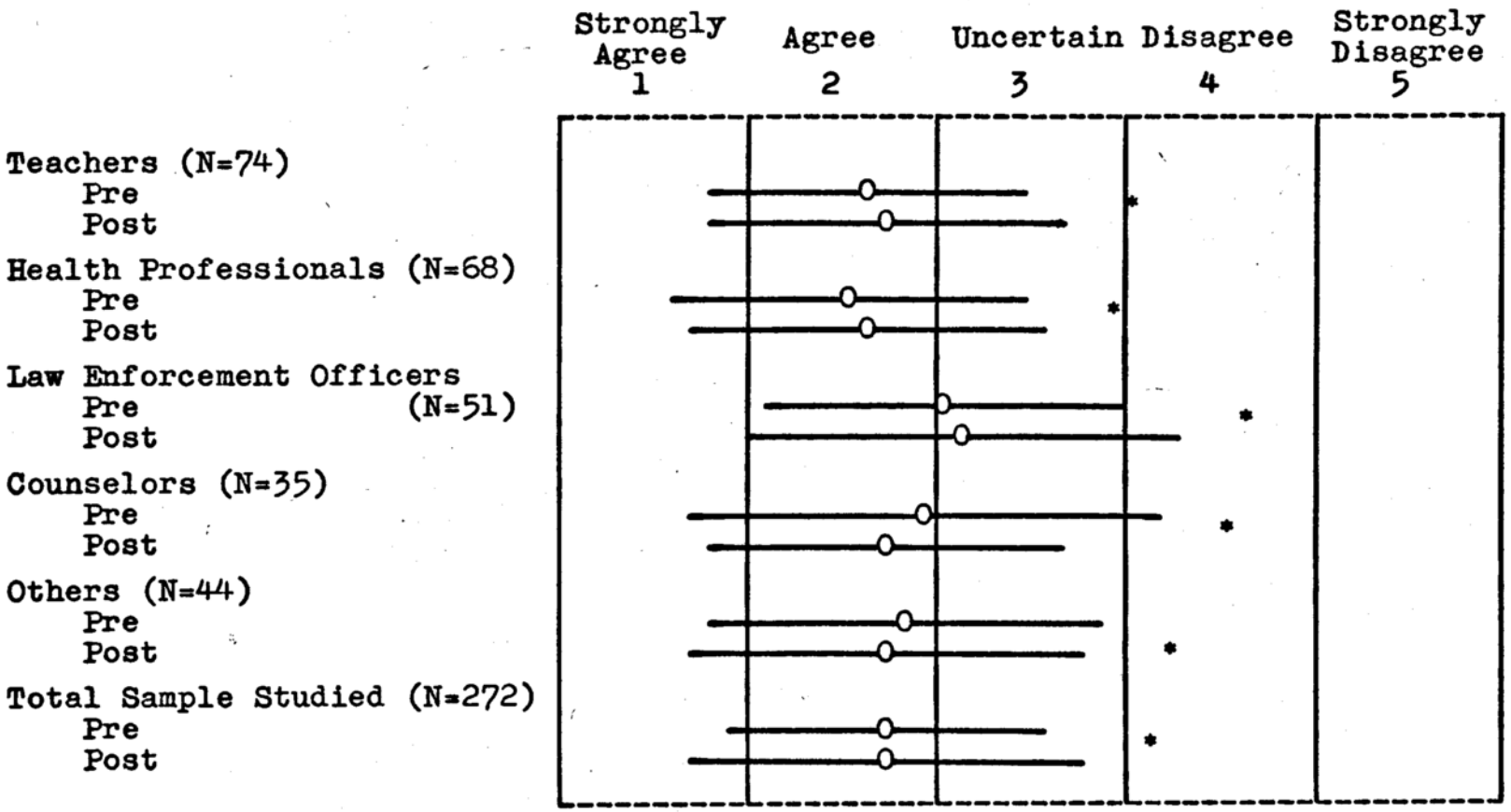
Statement 13. All drug abusers should be placed under medical care.

With the exception of the Law Enforcement Officers, all of the occupational groups as well as the Total Sample Studied agreed with the statement before taking the course. Figure 14 shows that the Law Enforcement Officers were uncertain about their agreement with the statement. The results indicate that none of the differences in mean scores exhibited by the occupational groups were significant. There was no difference in mean score after the course when the data for all of the occupational groups were combined (Total Sample Studied).

Figure 14

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 13. All drug abusers should be placed under medical care.)



* The difference in mean score is not significant at the 0.05 level.

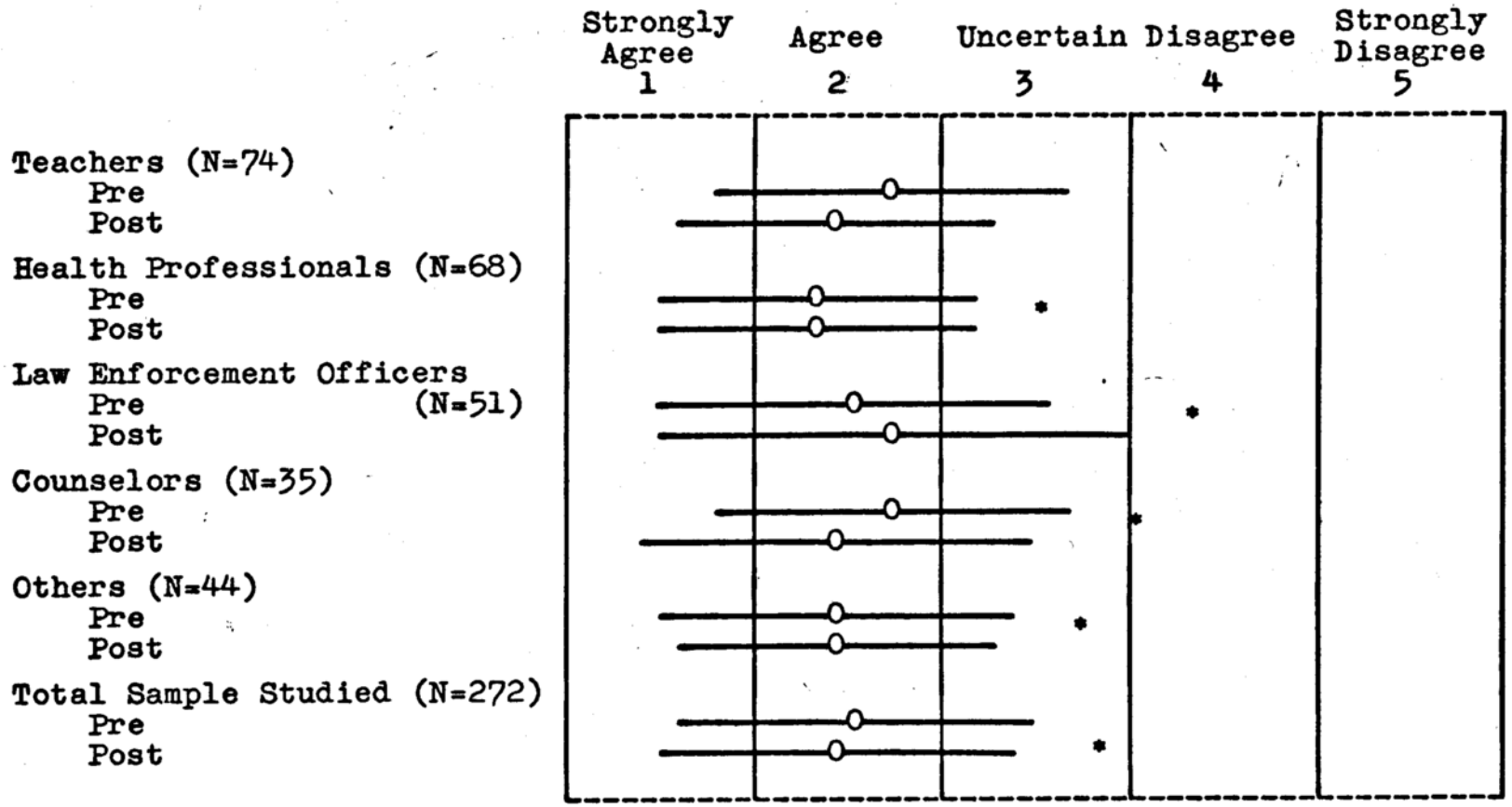
Statement 14. The major function of law enforcement should be aimed at undercutting the illicit traffic in drugs.

All of the occupational groups as well as the Total Sample Studied agreed with the statement before and after having taken the course. The only significant difference in mean score was exhibited by the Teachers, but the difference was not sufficient to indicate that the group had changed its opinion as can be seen in Figure 15.

Figure 15

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 14. The major function of law enforcement should be aimed at undercutting the illicit traffic in drugs.)



* The difference in mean score is not significant at the 0.05 level.

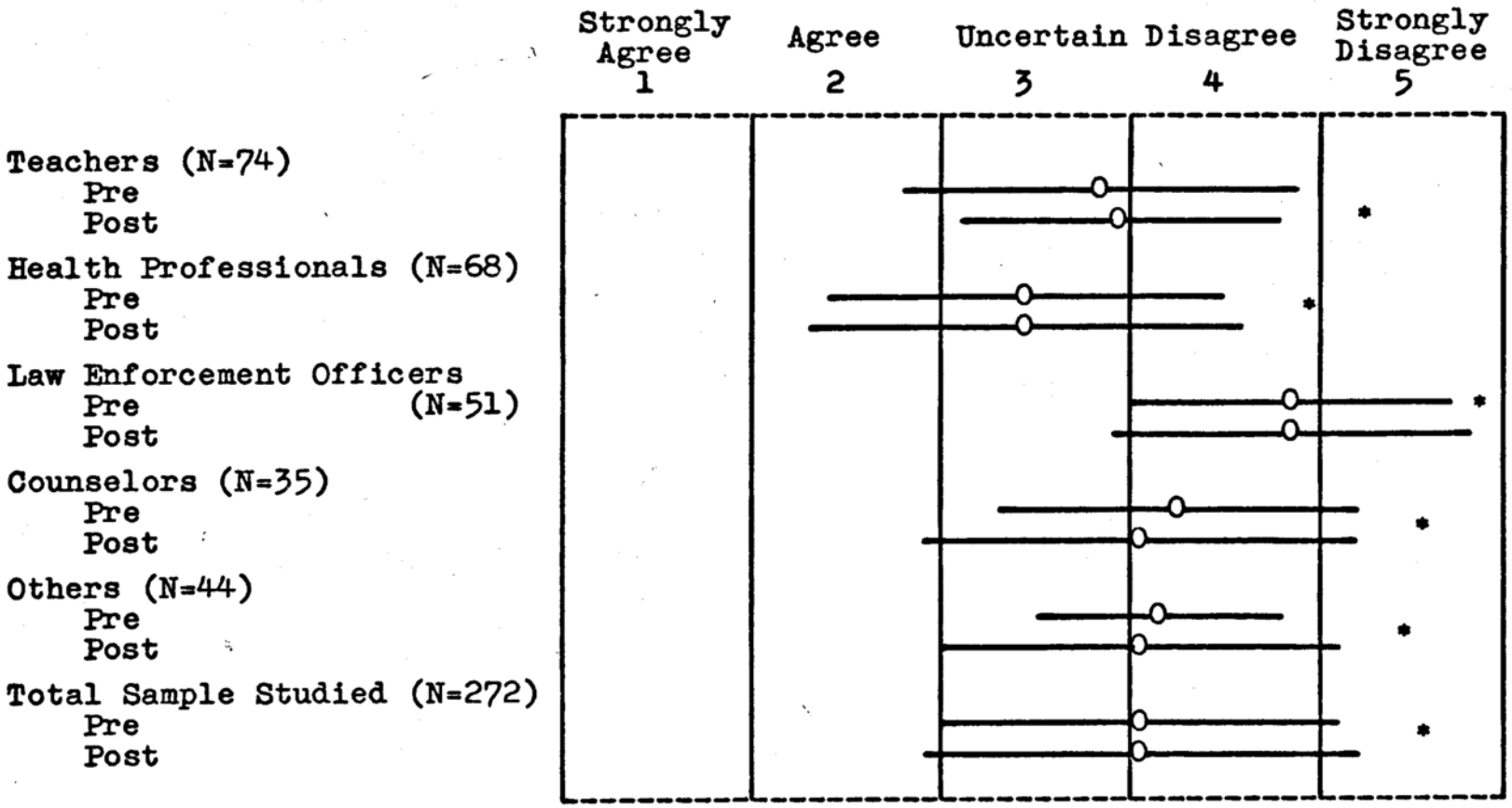
Statement 15. Abrupt withdrawal of drugs from an abuser - "cold turkey" - is a reprehensible act of cruelty towards addicts practiced primarily by law enforcement officers.

Figure 16 shows that before and after taking the tele-lecture course the Teachers and Health Professionals were uncertain about the statement and the remaining occupational groups and the Total Sample Studied disagreed with the statement. There was no difference in mean score exhibited by the Health Professionals, Law Enforcement Officers or the Total Sample Studied, and the differences exhibited by the remaining occupational groups were not significant.

Figure 16

Mean Scores (O) and Standard Deviations (——O——) Earned on the Pre- and Postopinionnaire About Drug Abuse by the Occupational Groups.

(Statement 15. Abrupt withdrawal of drugs from an abuser --"cold turkey"--is a reprehensible act of cruelty practiced primarily by law enforcement officers.)



* The difference in mean score is not significant at the 0.05 level.

Opinions About Satisfaction with the Course

Table 14 reveals that all of the occupational groups were satisfied with the course as indicated by their mean scores on the opinionnaire. The range of mean scores (30.8 to 34.5) falls well within the mean range of 27 to 37 which was defined as satisfied in Chapter III. These mean scores do not produce conclusive evidence that the majority of the individuals were satisfied with the course.

In order to determine how the majority of the individuals replied to the opinionnaire, individual responses to the opinionnaire were analyzed by response category.

TABLE 14

Mean Scores and Standard Deviations of the Occupational Groups on the Opinionnaire About Satisfaction with the Course (Possible Score Range: Maximum Satisfaction = 15, Maximum Dissatisfaction = 75)

	N	Mean	S.D.
Teachers	74	32.7	1.00
Health Professionals	68	30.8	0.89
Law Enforcement Officers	51	32.6	0.98
Counselors	35	34.5	1.08
Others	44	32.4	0.96

The analysis of the responses of the individuals in each occupational group as well as the Total Sample Studied is shown in Table 15, and indicates that seventy percent or more of the individuals were satisfied or very satisfied with the telelecture course. The largest number of individuals expressing dissatisfaction with the course were the Counselors; 18.1 percent were dissatisfied or very dissatisfied with the course.

It is interesting to note that the groups with the greatest number of individuals indicating that they were satisfied or very satisfied with the course were the Health Professionals (79.7 percent) and the Law Enforcement Officers (78.7 percent). These are the same two occupational groups which had the highest mean pretest scores and the lowest mean gain scores on the test of knowledge about drug abuse. This observation might indicate that these two groups were not sufficiently motivated by the course to learn more about drug use and abuse even though they were satisfied with the course as a learning activity.

TABLE 15

Percent of Participants Indicating Degree of Satisfaction or Dissatisfaction with the Course

	Very Satisfied	Satisfied	Uncertain	Dissatisfied	Very Dissatisfied	Total
Teachers (N=74)	22.7	52.9	11.0	10.2	3.2	100.0
Health Professionals (N=68)	25.5	54.2	10.9	8.4	1.0	100.0
Law Enforcement Officers (N=51)	20.5	58.2	8.2	9.5	3.5	99.9*
Counselors (N=35)	21.7	48.6	11.6	14.3	3.8	100.0
Others (N=44)	22.6	52.9	12.7	9.6	2.3	100.1*
Total Sample Studied (N=272)	22.8	53.7	10.8	10.1	2.6	100.0

*Due to rounding.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The problem was to determine the feasibility of utilizing the telelecture method for providing continuing education courses for health professionals. The objective of this investigation was to evaluate the course "Problems in Drug Abuse," which was planned and implemented for health professionals. The criteria of success were based on whether or not participants, upon completing the course,

1) exhibited a significant gain in mean score on a knowledge test related to drug use and abuse.
2) produced a significant change in mean score on an instrument related to opinions about drug use.
3) held an opinion of satisfaction with the course.

The concept of selecting a sample in time was used in this study. That is, the statistical information obtained from this study estimates the outcomes to be expected when offering a similar course by this method at some later date. The sample consisted of the 272 registrants who attended 10 of the 15 lectures and returned the pre- and post-course instruments.

Because of the request of the Central Administration of the University, registration for the telelecture course was open to all Wisconsin citizens. For this reason the sample was grouped into five occupational classifications: Teachers, Health Professionals, Law Enforcement Officers,

Counselors, and Others. This was done in order to view the possible differences existing among the groups with respect to their responses to the various instruments.

Instruments were developed to measure the knowledge and opinions noted above related to drug use and abuse. They were constructed locally by listening to the pre-taped lectures. The data collected from the instruments to measure knowledge and opinions about drug use and abuse were analysed using the matched pair t test to determine the significance of the mean gain and change scores, respectively, at the 0.05 level of probability error. A mean score was calculated for the instrument to measure opinion about satisfaction with the course. In addition, the percent of individuals responding to each scale choice was determined to provide a statement about the majority opinion about satisfaction with the course.

Conclusions

The results of this study produced evidence to support the following conclusions:

1. The participants as a whole, as well as each occupational group, exhibited a significant gain in mean score on the knowledge test related to drug abuse.
2. The differences between the mean gain scores of the occupational groups on the knowledge test were significant for the Teachers and the Health Professionals, and the Teachers and the Law Enforcement Officers, but not for the other groups.
3. The participants as a whole exhibited a signifi-

cant change in mean score on the opinionnaire about drug use and abuse, but only the Teachers, Law Enforcement Officers, and Others exhibited a significant change in mean scores on the opinionnaire.

4. The differences between the mean difference scores of the occupational groups on the opinionnaire about drug use and abuse were not significant.

5. Based on the mean posttest scores and a tally of individual scale responses, a majority of the participants, as well as a majority of each occupational group, indicated that they were satisfied with the method, procedure, and content of the course.

6. Based on the criteria established to measure the success of the course, it can be judged as successful, and the telelecture method represents a feasible approach to providing continuing education to large numbers of health professionals assembled at various distant locations throughout Wisconsin.

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APPENDICES

APPENDIX A

Sample Letter to Prospective Lecturers

UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
Madison, Wisconsin 53706
Phone 262-3130 (Area Code 608)

Extension Services in Pharmacy

August 10, 1968

Professor Isidor Chein
Department of Psychology
New York University
Washington Square
New York, New York 10003

Dear Professor Chein:

As you are well aware of the serious nature of the problems associated with the misuse of drugs and today's public concern about these problems, we hope that you will be interested to know that we are developing a program of continuing professional education in drug abuse. The intended student body includes individuals in the related health professions and other professions such as law, enforcement, education and social work.

Our plan is to have experts in the drug abuse field, such as you, assist us by preparing one-hour taped lectures which will then be disseminated from our campus to groups of professionals assembled at the more than 100 possible locations throughout the State of Wisconsin. The course will run one hour each week for a period of 15 weeks.

To accomplish this we will be utilizing the Tele-Lecture technique and Wisconsin's Educational Telephone Network which is designed for maximum flexibility and practical approximation to across-the-table discussion. All outlying points on the Network have identical equipment: a loudspeaker and a telephone handset which provides for two-way communication between the lecturer and the audience.

The major objectives of this program are to promote and stimulate professional growth by providing an "in-depth" study of drug abuse problems, to increase the participants' knowledge of the subject, and help to keep them current and up to date. A copy of the proposed program outline is enclosed for your information.

In conjunction with this proposed activity, we will collect data which can be used to evaluate the effectiveness of this educational effort and the effectiveness of the Tele-Lecture technique as a means of providing

continuing professional education.

We are writing to you to determine whether or not you would be willing to prepare a 45-60 minute tape on the topic "Use of Narcotics Among Juveniles" to be used as one lecture. In addition we would appreciate receiving appropriate visuals and handout materials which we can duplicate and use in conjunction with the tape. We are prepared to offer you a modest honorarium of $50.00 for your participation in the program and for the time and effort you spend in preparation. We hope that all tapes, visuals and handout materials can be in our hands by October 15.

We hope that you can agree to participate in this program of professional education in drug abuse. We would appreciate hearing from you. Once we learn of your willingness to cooperate with us, we will be in touch with you concerning the details of programming, such as taping, handout materials and other points of procedure.

Sincerely,

Jack R. Arndt*
Specialist
School of Pharmacy

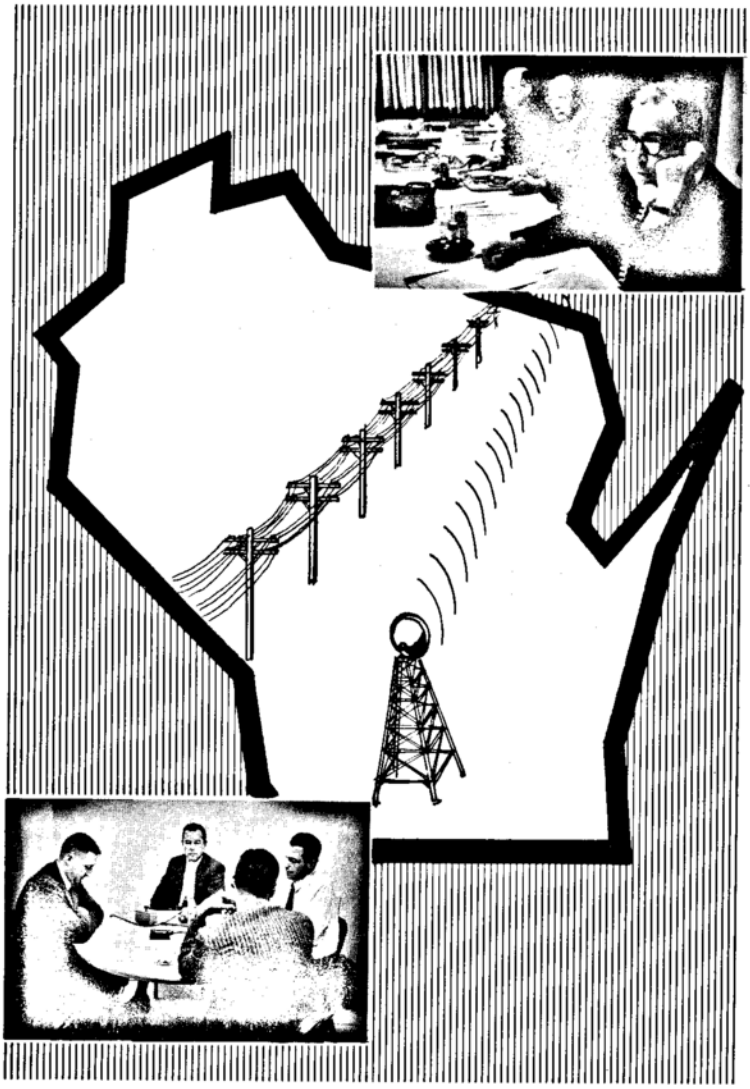
William L. Blockstein
Professor of Pharmacy
Chairman

*Please send reply to: University Extension
The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

JRA:lh
encl:

APPENDIX B

"Problems in Drug Abuse" Brochure



PROBLEMS IN DRUG ABUSE

A Tele-Lecture Course

January 21, 1969-
May 27, 1969

Sponsored by

The University of Wisconsin
University Extension, Health Sciences Unit:
Extension Services in Pharmacy
Department of Nursing
Department of Postgraduate Medicine

APPENDIX C

Supplementary Lecture Materials Mailed to Registrants

UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
Madison, Wisconsin 53706
Phone 262-3130 (Area Code 608)

Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Historical Background and Basic Issues of Drug Abuse"

to be presented by

Jack R. Arndt, M. S.
Specialist, School of Pharmacy and University Extension
The University of Wisconsin
Madison, Wisconsin 53706

on

JANUARY 21, 1969
(TUESDAY)

DON'T FORGET TO RETURN THE QUESTIONNAIRE SENT TO YOU EARLIER. Thank You.

Remember when HIPPIE - meant big in the hips,
And a TRIP involved travel - in cars, planes, and ships?

When POT was a vessel - for cooking things in,
And HOOKED was what Grandmother's - rug might have been?

When FIX was a verb - that meant mend or repair,
And BE-IN meant simply - existing somewhere?

When NEAT meant well organized - tidy and clean,
And GRASS was a ground cover - normally green?

When lights and not people - were SWITCHED ON and OFF?
And the PILL might have been what you took for a cough?

When CAMP meant to quarter - outdoors in a tent
And POP was what - the weasel went?

When GROOVY meant furrowed - with channels and hollows,
And BIRDS were winged creatures - like robbins and swallows?

When FUZZ was a substance - that's fluffy like lint,
And BREAD came from bakeries - not from the mint?

When SQUARE meant a 90-degree - angled form,
And COOL was a temperature - not quite warm?

When ROLL meant a bun - and ROCK was a stone,
And HANG-UP was something - you did to a phone?

When CHICKEN meant poultry - and BAG meant a sack?
When JUNK trashy castoffs - and old bric-a-brac?

When JAM was preserves - that you spread on your bread,
And CRAZY meant balmy - not right in the head?

When CAT was a feline - a kitten grown up,
And TEA was a liquid - you drank from a cup?

When SWINGER was someone -who swung in a swing,
And PAD was a soft - sort of cushiony thing?

When WAY OUT meant distant - and far, far, away,
And a man couldn't sue you - for calling him GAY?

When DIG meant to shovel - and spade in the dirt,
And PUT-ON was what - you would do with a shirt?

When TOUGH described meat - too unyielding to chew,
And MAKING A SCENE - was a rude thing to do?

Words once so sensible - sober and serious
Are making the FREAK SCENE - like PSYCHEDELIRIOUS.

It's GROOVY, MAN, GROOVY - but English it's not,
Methinks that the language - has gone straight to POT.

- Anonymous

A Glossary of the Jargon of the Drug World

(Compiled from Several Sources*)

A: amphetamine; that group of drugs which are called pep pills by squares. They are also called psychic energizers. Those most frequently taken are benzedrine, dexedrine and methedrine.

Acid: lysergic acid diethylamide (LSD); a powerful hallucinogenic substance that was at one time the mainstay of the psychedelic drug users and was used as a medium for obtaining very high intoxications and unpredictable psychological excursions.

Acid Funk: LSD - induced depression.

Acid Rock: rock and roll with a psychedelic orientation.

Addiction: state of chronic intoxication produced by repeated consumption of a drug; its characteristics include (1) an overpowering desire or need to continue taking the drug and to obtain it by any means, (2) a tendency to increase the dose, (3) a psychological and physical dependence on the effects of the drug so that illness results from cessation of intake, and (4) a detrimental effect on the individual.

Amphetamines: stimulant drugs such as dexedrine, methedrine, and benzedrine; often known as "goof balls".

At: where drug action is taking place.

Babysit: to guide a person through his drug experience. Babysitters are usually experienced drug users.

Backwards: a term applied to tranquilizers.

Bag: someone's "bit" or "thing"; a deep, practically obsessive involvement with something.

Ball: a pleasant happening; may refer either to events in general or to a sexual experience.

Barbiturates: depressant drugs which can be addicting.

Beautiful: an all-purpose term of approval; also used as an exclamation.

Be-in: a hippy happening; a demonstration of hippy solidarity.

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* See page 13.

Benny:	may refer to any amphetamine, but specifically denotes amphetamine sulfate or phosphate. Obese people take these to lose weight, since bennies tend to depress appetite. Drug users take them to promote alertness and for various types of drug trips. The latter experiences are usually followed by depression. If used chronically, bennies may cause physical and mental deterioration.
Blow:	to leave willingly; to invite to leave, usually because of disapproval of one's conduct; to perform well, either verbally or musically.
Blow Your Mind:	(1) on the positive side this may be an astonishing or fascinating experience; on the negative, it may denote a bad trip or an experience that causes one to become upset or depressed. (2) to be totally overwhelmed by a new perception on or off drugs.
Blue Devils:	amobarital capsules.
Blue Fascists:	one of the milder synonyms for the police.
Blue Velvet:	an intravenous injection of paragoric with an antihistamine (tripelennamine hydrochloride).
Body Drugs:	narcotics; the addictive drugs as opposed to the psychedelic drugs.
Boo:	marihuana; cannabis
Boo Hoo:	a "priest" in the hippy Neo-American Church.
Bread:	money, usually a large sum in contrast to "crumbs", which means change or small bills.
Bug:	to bother or pester someone.
Bum trip:	a bad experience; usually used in connection with the use of mindaffecting drugs, but also employed to describe any emotional experience that was depressing or disturbing.
Bummer:	a bad trip.
Burned:	used to describe the acquisition of bad drugs, diluted drugs or no drugs at all, even though cash has been exchanged.
Bust:	an arrest; usually this implies that the police have descended upon a gathering and rounded the participants up for questioning or arrest.
Busted:	arrested, specifically for drugs, but also for any other criminal activity.
Cache:	see Stash

Can: one ounce of marihuana; a lid.

Cannabis: the genus name for all the tetrahydrocannabinol-producing weeds.

Carrying: transporting drugs or keeping them on one's person while in transit; see Holding.

Cat: an informed person who knows where the action is; usually said of the male; see Chick.

Chalk: methamphetamine.

Changes: something brand-new seen for the first time (usually specifically refers to a new perception brought on by one of the consciousness-expanding drugs); a "change" is a temporary disorientation followed by resolution.

Chick: a sexually desirable young female.

Chip: to play around with a drug; to use drugs sporadically.

Chipper: one who chips.

Clean: off drugs; not in possession of drugs.

Coke: cocaine.

Come Down: to allow the effects of the drug you've been taking to wear off; to return to reality.

Commune: a communal apartment open to all who need a place to sleep.

Connection: (1) the source of illegal drugs, usually a seller. (2) a source who can direct one to a seller but who may not sell himself. (3) a person who gives or sells information.

Contact: (1) to meet someone to buy drugs. (2) the man who sells drugs or directs one to a seller.

Contact High: a trip caused by the emotional experience of observing or being near someone who is high because of actual drug indulgence. The idea is the same as the empathetic response occuring when one sees another yawn.

Cool: in tune with what's happening. Also refers to being unusually adept in moving within the drug scene and coping with its problems.

Cop: (1) police. (2) to buy or obtain drugs. (3) to steal.

Cop out: (1) to drop out of the drug world and return to the world of the establishment. (2) to give up. See Fink.

Co-pilots:	amphetamines
Cope:	to maintain while intoxicated on drugs, i.e., to handle oneself effectively while under the influence of drugs; this ability varies from person to person and takes practice to acquire.
Crash:	(1) to fall asleep; may be said for those who are up on drugs but also denotes any sudden falling asleep. (2) a comedown from a drug episode, usually a precipitous and unpleasnat one; for example, crashing in the middle of a drug episode because of an arrest.
Crashpad;	a place to sleep
Crazy:	(1)Exciting, in the know, enjoyable. (2) a general term of approval, especially of happenings in the drug world which are presumed to be annoying to the establishment.
Crumbs:	money, but in small amounts. See Bread.
Crutch:	(1) an aid (e.g., drugs) one must have to cope with daily existence. (2) a split match which is used as a roach holder.
Cut out:	to leave, depart.
Cyclert:	magnesium hydroxide and permoline; a memory stimulant.
Deal:	to sell drugs
Dealer:	a heavy supplier of illegal drugs; also called the "man" or the "connection".
Dexies:	dextroamphetamine sulfate (amixture of barbiturate and amphetamine).
Dig:	to understand, usually to appreciate, approve, or enjoy.
Digger:	a hippy father figure who tries to obtain beds, food, money, or employment for a needy hippie.
Diggers:	a hippy society named after 17th Century English farmers who raised food to give to the poor.
Dime Bag:	a $10 bag of marihuana.
DMT:	dimethyltryptamine, a non-addicting psychedelic drug; normal dose is 50 to 60 milligrams and the effects last about half an hour.
Doing:	may be any "happening", but specifically the taking of a drug.
Doing one's own thing:	indulging in one's "bag"; participating in action notably pleasurable to the doer.

Dope:	(1) to drug or give any drugs to a person. (2) Specifically, opiates and opiate narcotics. (3) a synonym for glue used for glue-sniffing. (4) Occasionally used to describe any drug.
Downer:	(1) a down trip, a bummer, a bad drug experience. (2) a synonym for depressant drugs such as barbiturates.
Downs:	barbiturates; as "The beautiful thing about downies is that there's no come down . . . you just go to sleep".
Drag:	a boring happening, a meaningless situation.
Drop:	to take;as "I dropped my first acid in Paris".
Dreamer:	morphine or opiate narcotics; one who takes opiates.
Drop out:	(1) One who withdraws from society or dispenses with its social mores. (2) The ultimate happening in the psychedelic experience. The term is used both as a noun to denote the doer and as a verb to describe the experience.
Electric:	having psychedelic powers; as in electric banana or electric Kool-Aid (Kool-Aid spiked with LSD).
Establishment:	people over the age of 30 usually straight, or more often square.
Far out:	authentically bizarre; avant garde, new, unusual.
Fed:	a federal narcotics agent.
Fix:	a shot of drugs, usually herion, but also applies to speed.
Fink:	to give information, usually to the establishment.
Flip;	to express unusually strong emotion that may range from untoward enthusiasm to psychotic behavior.
Flower Power:	the power of love and peace; term and concept were originated in San Francisco.
Footballs:	amphetamines.
Forwards:	pep pills, specifically amphetamines; see Backwards.
Freak:	(1) complimentary term for person who wears flowers, beads, etc.; it often appears in the term "beautiful freak". (2) One who has flipped, i.e., one who uses drugs to the point of transcending reality. (3) used to describe a special type of intense abuser of a particular psychedelic drug, such as "speed freak", or "acid freak".
Freak out:	(1) a bad trip or a bad portion of a trip; a freak out can be brought on by a thing, a feeling or a preception; group environment with rock band and kinetic lights. (2) to loose all contact with reality.

Freak rock:	synonym for acid rock.
Fuzz:	the police.
Game:	an unnecessary type of behavior designed to impress others.
Get into something:	to enter into the action, to be involved.
Gig:	someone's "bit" or'thing"; a jazz term.
Giggle-smoke:	cannabis, or smoke from cannabis.
Go:	(1) to swing, to participate freely in the drug scene. (2) to perform unusually well. (3) Used as a shout of encouragement.
Go up:	get high; as in, "to go up on grass".
Going up:	taking drugs to obtain their effect; said of smoking cannabis or injecting speed, etc.
Goof balls:	barbiturates
Grass:	cannabis, marihuana.
Grass Brownies:	cookies containing cannabis.
Griffo:	cannabis
Groove:	to concentrate intensely on an object or activity, usually with pleasure; to tune in; to feel in harmony with the universe.
Groovy:	an enjoyable activity or person; swinging; with it; fine, excellent, beautiful, terrific.
Groover:	one who groves.
Guide:	one who babysits a novice when he goes up on a psychedelic substance; see Babysitter.
Guru:	a teacher or guide; borrowed from the Hindi.
Habituation:	a psychological dependence on a drug with a strong desire to continue taking the drug for a sense of improved well being or satisfaction which it engenders, as distinct from the physical dependence of addiction.
Hallucinogens:	psychotoxic drugs that affect the mind in such a way as to produce sensations that are distorted and abnormal in content. The term is strictly establishment in the users normally deny that drugs such as LSD actually produce psychotic or pseudo-psychotic episodes.
Hang up:	a habit or idea which causes one discomfort.

Happening:	action; what's occurring at the moment of interest to the drug group; an exciting or pleasurable event.
Hard Drugs:	addictive drugs.
Hash:	hashish
Hashish:	a concentrated form of marihuana's active element; the resin obtained from the flowers of the cannabis plant; very high THC content.
Hashbury:	colloquial for Haight-Ashbury (hippy central in San Francisco).
Hassel:	(1) an argument or unpleasant discourse between people. (2) any unpleasant situation or duty which disrupts the tranquility of doing one's own thing.
Head:	a chronic user of a drug or drugs, e.g., pothead, acid head, etc. Within the drug subculture this term is identifying only; within the establishment it is identifying and derogatory.
Head Drugs:	the psychedelic drugs; the opposite of the Hard or Body Drugs.
Hearts:	amphetamines, specifically dextroamphetamine and benzedrine sulfate.
Heat:	police.
H :	heroin
Heroin:	an opiate and narcotic; an alkaloid from the poppy plant.
High:	being intoxicated, turned on, exhilarated, particularly by the use of drugs such as cannabis.
Hip:	aware, in the know, informed.
Hit:	(1) an arrest. (2) to smoke a joint of marihuana.
Hold:	to keep cannabis or other drugs on one's person for use, transit, or sale. One may also hold by storing drugs in his house; see Carrying.
Horse:	heroin
Hung up:	(1) trapped in a snare of emotional, psychological, or interpersonal problems that prevent one from enjoying drugs or life in general. (2) see Hang up; an alternate meaning is to be unable to reach a decision.
Hustle:	to precipitate a happening of any kind.
Hype:	one who uses intravenous drugs, specifically heroin or speed.
Ice Cream Habit:	sporadic use of drugs; see Chip.

Indian Hay:	cannabis, specifically Cannabis indica, or hashish.
Joint:	(1) a marihuana cigarette. (2) a place where the action is. (3) a home-rolled cigarette used for smoking banana, marihuana, hydrangea, etc.
Junk:	heroin.
Junkie:	heroin user.
Key:	see Kilo.
Kilo:	2.2 pounds of drug substance; usually this amount compressed into brick form for transport.
LSD:	lysergic acid diethylamide; by weight, the most potent psychedelic drug; normal dose is 100 to 300 micrograms and the effects last from 8 to 10 hours; non-addicting.
Lame ones:	those who need a crutch to cope with reality.
Lard:	police.
Let it all hang out:	to give the facts, to hide nothing.
Lid:	approximately an ounce of marihuana; also called a can.
Love-in	a be-in dedicated to peace and love and, on occasion, cannabis smoking and sex.
Man:	(1) a drug connection. (2) the police. (3) a term of address within the drug group, e.g., "Hey there, man!"
Marihuana:	a non-addicting drug obtained from the flowering tops of the cannabis or hemp plant, which contain the majority of the plant's THC content.
Maryjane:	marihuana
Matchbox:	a small amount of cannabis sufficient to make between five to eight cigaretts; about a fifth of a lid.
Meth:	methamphetamine; see Speed.
Mescaline:	the pure, non-addicting alkaloid derived from peyote; normal dose is 300-800 milligrams and the effects last from 8 to 10 hours.
Mindblower:	an experience or a drug which upsets one's emotional and/or psychological equilibrium.
Mohasky:	cannabis
Mu:	cannabis
Muggles:	cannabis

Narc:	a narcotics agent.
Narcotics:	a group of addicting drugs; the most common are the opiates: heroin and opium.
Nickle Bag:	a $5.00 bag of marihuana.
Opiate:	any medicine containing or derived from opium.
Out of it:	not in contact, not part of the drug scene.
Out of sight:	Tremendous, superb, so good it can't be believed.
Pad:	one's living quarters.
Panama Red:	a potent type of South American cannabis.
Pep pills:	stimulants, specifically amphetamines.
Peyote:	the unconcentrated hallucinogenic preparation from the cactus plant, Anhelonium williamsii.
Places:	a "good" place is part of an acid trip where everything seems warm, loving, sweet; a "bad" place is where everything seems terrible, freak out.
Poke:	a puff on a joint.
Pot:	marihuana
Pot Likker:	cannabis tea, usually made with regular tea boiled with cannabis leaves.
Pothead:	a chronic cannabis user.
Psilocybin:	an hallucinogenic drug derived from a type of mushroom; normal dose is 20 to 60 milligrams and effects last 5 to 6 hours.
Psyched Up:	excited in anticipation of something.
Psychedelics:	a group of hallucinogenic drugs which alter perception and consciousness; with experience one can decrease the dosage and get the same effects; the more common types are marihuana, hashish, LSD, DMT, peyote, and mescaline.
Push:	(1) to sell, specifically narcotics and dangerous drugs. (2) to attempt to manipulate one's environment or to encourage things to happen.
Quarter Bag:	a $25 bag of marihuana.
Rap:	to communicate peacefully and/or with purpose.
Rapping:	talking rapidly and compulsivley while high on amphetamine; a term adapted from jazz slang where it refers to a rapid drum pattern.

Red Birds: secobarbital capsules.

Red Devils: secobarbital

Reefer: a joint; a marihuana cigarette.

Riff: extra "bit" thrown into a conversation which doesn't particularly fit; borrowed from jazz slang where it means a solo break.

Ripped: highly intoxicated on drugs.

Roach: the butt end of a marihuana cigarette which contains a high THC content that accumulates as the cigarette is burned.

Roach Holder: a device that enables the smoker to hold a joint so it can be consumed to the very end. Often these holders are elaborate, jeweled items, but they may be made of broom straws or match sticks.

Run: an amphetamine high.

Scag: heroin

Scene: the place where the action is, as well as all that is happening at the time; similar to the scene of a play which portrays all the events of the moment.

Score: (1) the important facts about a given event or subject. (2) to buy or acquire drugs or sex. (3) to acquire recognition for an accomplishment.

Session: the duration of time spent in a state of expanded consciousness (usually refers specifically to an LSD-induced high); this term is borrowed from psychoanalytic jargon.

Set: the personal variables of a psychedelic experience such as personality, expectations, values, anxieties, desires, and one's degree of selfunderstanding.

Setting: the external conditions of a psychedelic experience such as the surrounding or location, the people present, the size of the group, the time of day, the degree of privacy, and the experience of the guide.

Skin Popper: a subcutaneous user of drugs.

Smashed: intoxicated; see Stoned.

Snow: cocaine

Sock it to me: (1)to tell the straight facts, to speak plainly and honestly. (2) Sexually, the term denotes assent on the part of the speaker for mutual participation.

Soft Drugs: the hallucinogenic drugs; the opposite of Hard or Body Drugs.

Space out:	in a daze, particularly a daze resulting from a trip due to the use of psychotoxins.
Spaced:	Originally meant an amphetamine high; now refers to any kind of drug high.
Speed:	(1) stimulants, specifically methamphetamine (desoxyephedrine), a drug capable of producing intense highs with, in most cases, subsequent severe crashes. (2) a generic term for amphetamines.
Spike:	needle
Splash:	speed
Square:	not with it, straight-laced, narrow-minded, unimaginative, anti-hip.
Stash:	where you keep your drugs (pot, usually).
Stoned:	very high on drugs, usually to the point of being unable to cope with reality.
STP:	4-methyl-2,5-dimethoxy-alpha-methyl phenethylamine; a psychedelic chemical related to mescaline and amphetamine, said to be extremely mind-distorting.
Straight:	(1) one who does not use drugs. (2) more broadly, one who is not connected with the drug or swinging sex world. This is not usually a derogatory term but is used to identify one's social association in contrast to the word 'square", which is not a complimentary term.
Stuff:	cannabis or other drugs.
Super:	intensifies word to which it is attached; i.e., a super mini skirt is a micro skirt.
Swing:	to be an active and effective participant in the action or happening in the drug and/or the liberal sexual world.
Swinger:	one who is an active participant in the drug world.
Tea:	marihuana
Tell it like it is:	to tell the truth without embellishment.
Tennybopper:	originally meant a teenaged girl fan of a pop singer or group; now refers to a teenaged girl who hangs around the hippy community.
Tetrahydrocannabinols:	identified as the group of substances which are responsible for the psychotoxicity and other parmacological effects that accrue from the use of cannabis.
THC :	tetrahydrocannabinol.

Thing:	someone's true nature; as in "turn on to your own thing".
Toak:	to smoke a marihuana cigarette.
Toak up:	(1) to drag on a cannabis-filled cigarette or pipe. (2) to go up significantly on cannabis.
Torn up:	intoxicated; stoned.
Trap:	hiding place for drugs; stash.
Travel Agent:	acid connection; one who deals in acid.
Trip:	an emotional excursion into unknown psychological realms involving heightened sensual perception and concentration. In drug parlance this is the result of taking drugs and obtaining their effects.
Trip out:	(1) to immerse oneself in a happening. (2) to become intensely involved.
Turn off:	to dispel interest, to bore, to cause indifference, unaware.
Turn on:	(1) in the limited sense, to smoke marihuana or take other hallucinogens. (2) in the general sense, to acquire expanded appreciation of an event or experience as a result of being highly pleased by it. (3) to come alive, to enter the drug society. (4) to imply that one has encouraged another to use a drug.
Tuned in:	(1) to become markedly aware of oneself as a result of mind expansion due to drug use. (2) generally, to be aware of the scene and usually part of it.
Uncool:	one who is aware but incapable (because of hangups or comparable problems) of participating fully in the action. An uncool person may endanger a cool scene because of his lack of self-control and inability to maintain. This is a most uncomplimentary term.
Underground:	the whole drug subculture, its inhabitants, its activities, its philosophies.
Up :	to be under the influence of a drug. Usually not in full control of oneself. The person who is "up" is usually sympathetically protected by others in the drug community until he comes down.
Ups:	amphetamines.
Up tight:	in a state of extreme anxiety; nervous; tense.
Uppers:	stimulants.
Weed:	cannabis.
Where it's at:	the place, real or imagined, where the action is. To know "where it's at" is to be aware of the drug scene.

Wig:	one's mind.
Wig out:	to blow one's mind.
Yellow Jackets:	pentobarbital capsules.
Zap:	(1) borrowed from the comics; usually used in threes in conversation to indicate movement, action, change of scene. (2) to present something in an indelibly memorable way so as to produce a change; "Zap the world with love".
Zen in:	to intuit; to be able to read someone's mind; to know something about someone intuitively.
Zig-zag:	roll-your-own cigarette paper.
Zonked out:	completely tripped; totally fascinated.

References

Bloomquist, E. R., Marijuana, Glencoe Press, Beverly Hills, 1968, pp. 155-164.

Bronsteen, Ruth, The Hippy's Handbook, Canyon Book Co., 1967, pp. 12-17.

Princeton University Student Committee on Mental Health, Psychedelics and the College Student, Princeton University Press, 1967, pp. 4-5.

16 mm. Films on Narcotics and Drugs

The following films are available for rental from The University of Wisconsin, University Extension, Bureau of Audio-Visual Instruction, Box 2093, Madison, Wis. 53701. The rental price is for five days or less. All films may be previewed at BAVI (1327 University Ave., Madison) without charge, but phone ahead to see if they are available. Please order by number and title and specify date wanted and an alternate date.

6974 DRUGS AND THE NERVOUS SYSTEM — Color 18 Min. $5.50

Explains how drugs affect many different parts of the body by working indirectly in the nervous system. Illustrates how a common drug as aspirin acts to reduce pain and fever. Emphasizes that if drugs are used without a doctor's instruction they can be poisonous. Explains that serious disruption of the nervous system can be caused by narcotics and substances taken for "kicks". Focuses on substances as airplane glue, stimulants, depressants, marihuana and LSD. (Churchill)

0294 FIGHT OR FLIGHT? — Color 19 Min. $5.00

Presents drug addicts, under rehabilitation, who give their own personal account of hard drug use and its ultimate toll on their lives. (Internat'l. Assoc. Chief of Police)

7169 GENERATION GAP: BEYOND LSD — Color 25 Min. $11.00

Illustrates the communication gap between two generations; teenagers and young adults on the one hand, and the generation over thirty, "the establishment". Centers on the teenage use of LSD and other drugs as symptoms of this gap. Shows parents seek help to understand their relationships with their teenagers. (Film Associates)

3415 HOOKED — 20 Min. $4.50

Presents a group of young former addicts of drugs discussing their experiences. Because the film is real, and the voice of experience rather than authority, is is designed to have a sobering effect on rebellious, susceptible young people. (Churchill)

0893 H - STORY OF TEEN-AGE DRUG ADDICT (THE) — 22 Min. $4.00

Presents the case history of a teen-age boy and his fight with drugs. Shows how he encounters drugs and becomes an addict, and how he solves his problem. Dramatizes the social as well as the health aspects of drug addiction. Restricted to carefully supervised presentations. Not to be used in general group situations. (YA)

3186 LOSERS — 31 Min. $5.00

Examines the prevalence of experimentation and the habitual use of chemicals and drugs by youth from 12-21 years old. Includes actual experiences recounted by youths from the "high hazards" slums and from the "nice" neighborhoods. Shows the harmful effects of such practices as glue-sniffing, use of pep pills, goof balls, heroin and marihuana. (Carousel)

6971 LSD: INSIGHT OR INSANITY? Color 18 Min. $6.00

Explains that individuals have always found ways to express themselves: fads, clothes, hair styles, wigs, gang fights, speed, dares, and various drugs. Introduces medical personnel to explain LSD and that its future medical benefit is being explored. Explores the myths in relation to real evidence findings on the effects of LSD. Relates that no evidence exists concerning the chemistry effect of the drug on the brain, yet cases reveal the psychological danger. Establishes that the risks of taking LSD are real -- hundreds of young people are now confined to mental hospitals because of a "bad trip". (Bailey)

6708 & 6709 LSD: SPRING GROVE EXPERIMENT 54 Min. $9.00

Depicts the controlled scientific use of LSD with two patients at Spring Grove Hospital, Maryland. Relates that the use of LSD for treatment of mental disorders requires careful preparation and follow-up to determine effectiveness. Records the apparent improvement of patients six months following LSD treatment. (McGraw-Hill)

7135 LSD - 25 Color 27 Min. $9.00

Impresses that there is much information and misinformation concerning the mind altering drug LSD-25. Gives a background into the development and composition make-up of the drug. Shows the careful testing and proper means of identifying LSD. Emphasizes the problems of black market, contamination, and improper quantities -- mixtures of LSD. Establishes the recent concept of the LSD Rescue Unit which provides counseling and psychiatric help. (Professional Arts)

6824 NARCOTICS -- THE INSIDE STORY Color 12 Min. $5.00

Shows that we enjoy life and we should guard ourselves from outside dangers such as medicines, poisons, and extremely dangerous narcotics. Depicts how physicians use depressants and stimulants to relieve pain and deaden the nervous system. Shows how the use of the drug marihuana may lead one to experiment with stronger drugs as LSD. Illustrates effectively the alarming effect of drugs on white rats and its potential danger to human beings. (Cahill)

6107 SEDUCTION OF THE INNOCENT Color 11 Min. $2.00

Deals with the problem of narcotic addiction as an ever-increasing menace to youth. Points out the danger signals along the way through the story

of a teen-age couple who become victims of the cancer-like menace. Emphasizes danger signals along the way and the tragic aftermath. (Sid Davis)

3506 SUBJECT: NARCOTICS 22 Min. $3.50

Shows what narcotics are; methods in which they are administered; how they enter the country, and the processing they undergo; the narcotic addict and his effect upon society; the physical and psychological rehabilitation of an addict. (Narcotic Educat'l Found.)

6974 DRUGS AND THE NERVOUS SYSTEM
USE: Biology, S; Gen. Sci., J; Health, J, S; Social Probs., S; Clubs, A.

0294 FIGHT OR FLIGHT?
USE: Health, S,C; Social Probs., S, C, A; Clubs, A.

7169 GENERATION GAP: BEYOND LSD
USE: Guidance, S, C; Social Probs., S, C; Social Work, S, C, A; Clubs, A.

3415 HOOKED
USE: Health, S, C; Clubs, A.

0893 H - STORY OF TEEN-AGE DRUG ADDICT (THE)
USE: Guid., C; Health, S; Sociol., C; Clubs, A.

3186 LOSERS
USE: Health, J, S; Soc. Probs., S.

6971 LSD: INSIGHT OR INSANITY?
USE: Health, J, S; Social Probs.,S.

6708 & 6709 LSD: SPRING GROVE EXPERIMENT
USE: Psych., C; Social Probs., C; Social Work, C, A; Sociology, C.

7135 LSD-25
USE: Health, S.

6824 NARCOTICS -- THE INSIDE STORY
USE: Health, J, S; Social Probs., J, S.

6107 SEDUCTION OF THE INNOCENT
USE: Guidance, S; Health, J, S; Social Probs., J, S,C.

3506 SUBJECT: NARCOTICS
USE: Health, C, A; Med., C, A; Nurs., C, A; Soc. Work, C, A; Sociol., C.

P - Primary; I - Intermediate; J - Junior High; S - Senior High; C - College; A - Adult

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drug abuse . . .

problems of identification

It is important to recognize the symptoms and signs of drug abuse. The following outline was prepared by David J. Lehman, MD, chairman of Teenage Alert, an education program sponsored by the Broward County Medical Association, Fort Lauderdale, Florida. The information was abstracted by Dr. Lehman from the publication, *Drug Abuse: Escape to Nowhere* (see story on page 24).

I—Common symptoms of drug abuse

A—Changes in school attendance, discipline and grades
B—Change in the character of homework turned in
C—Unusual flare-ups or outbreaks of temper
D—Poor physical appearance
E—Furtive behavior regarding drugs and possessions
F—Wearing of sunglasses at inappropriate times to hide dilated or constricted pupils
G—Long-sleeved shirts worn constantly to hide needle marks
H—Association with known drug abusers
I—Borrowing of money from students to purchase drugs
J—Stealing small items from school
K—Finding the student in odd places during the day such as closets, storage rooms, etc. to take drugs

II—Manifestations of specific drugs

A—The glue sniffer
1—Odor of substance inhaled on breath and clothes
2—Excess nasal secretions, watering of the eyes
3—Poor muscular control, drowsiness or unconsciousness
4—Presence of plastic or paper bags or rags containing dry plastic cement

B—The depressant abuser . . . (barbiturates—"goofballs")
1—Symptoms of alcohol intoxication with one important exception—no odor of alcohol on the breath
2—Staggering or stumbling in classrooms or halls
3—May fall asleep in class
4—Lacks interest in school activities
5—Is drowsy and may appear disoriented

C—The stimulant abuser . . . (amphetamines—"bennies")
1—Cause excess activity—student is irritable, argumentative, nervous and has difficulty sitting still in classrooms
2—Pupils are dilated
3—Mouth and nose are dry with bad breath, causing user to lick his lips frequently and rub and scratch his nose
4—Chain smoking
5—Goes long periods without eating or sleeping

D—The narcotic abuser . . . (heroin, Demerol, morphine)
(These individuals are not frequently seen in school, and usually begin by drinking paregoric or cough medicines containing codeine—the presence of empty bottles in wastebaskets or on school grounds is a clue.)
1—Inhaling heroin in powder form leaves traces of white powder around the nostrils, causing redness and rawness
2—Injecting heroin leaves scars on the inner surface of the arms and elbows (*mainlining*). This causes the student to wear long-sleeved shirts most of the time
3—Users often leave syringes, bent spoons, cotton and needles in lockers—this is a telltale sign of an addict
4—In the classroom the pupil is lethargic, drowsy. His pupils are constricted and fail to respond to light

E—The marihuana abuser
(These individuals are difficult to recognize unless they are under the influence of the drug at the time they are being observed.)
1—In the early stages student may appear animated and hysterical with rapid, loud talking and bursts of laughter
2—In the later stages the student is sleepy or stuporous
3—Depth perception is distorted, making driving dangerous

Note—Marihuana cigarettes are rolled in a double-thickness of brown or off-white cigarette paper. These cigarettes are smaller than a regular cigarette with the paper twisted or tucked in at both ends and with tobacco that is greener in color than regular tobacco. The odor of burning marihuana resembles that of burning weeds or rope. The cigarettes are referred to as "reefers, sticks, Texas tea, pot, rope, Mary Jane, loco weed, jive, grass, hemp, hay."

F—The hallucinogen abuser
(It is unlikely that students who use LSD will do so in a school-setting since these drugs are usually used in a group situation under special conditions.)
1—Users sit or recline quietly in a dream or trance-like state
2—Users may become fearful and experience a degree of terror which makes them attempt to escape from the group
3—The drug primarily affects the central nervous system, producing changes in mood and behavior
4—Perceptual changes involve senses of sight, hearing, touch, body-image and time

Note—The drug is odorless, tasteless and colorless and may be found in the form of impregnated sugar cubes, cookies or crackers. LSD is usually taken orally but may be injected. It is imported in ampuls of clear blue liquid.

UNIVERSITY EXTENSION

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Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"The U. S. Bureau of Narcotics and Dangerous Drugs"

to be presented by

John E. Ingersoll, Director
Bureau of Narcotics and Dangerous Drugs
United States Department of Justice
Washington, D. C. 20226

on

FEBRUARY 11, 1969
(TUESDAY)

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 1

Bureau of Narcotics and Dangerous Drugs

The Bureau of Narcotics and Dangerous Drugs was established April 8, 1968, when President Johnson's Reorganization Plan No. 1 of 1968 gained Congressional approval. It grew from the merger of the Treasury Department's Bureau of Narcotics and the Food and Drug Administration's Bureau of Drug Abuse Control where the experience and man-power of both agencies were welded into a tightly knit unit under the Justice Department.

The Bureau was established in order to more effectively combat the abuse of narcotics and dangerous drugs. Emphasis has been placed not only upon enforcement, in cooperation with local, state, and other Federal agencies, but also upon education and research. The organization has been tailored to more effectively reduce and hopefully, eventually eliminate the menace of narcotic addiction and drug abuse as a major social, economic, and medical problem in America.

ENFORCEMENT: Primary responsibility of the Bureau of Narcotics and Dangerous Drugs is to enforce the laws and statutes relating to narcotic drugs, marihuana, depressants, stimulants and the hallucinogenic drugs. To achieve this goal the Bureau has stationed highly trained agents along the traditional routes of illicit traffic both in the United States and in foreign countries. Their objectives are to reach the highest possible source of supply and to apprehend the greatest quantity of illicit drugs before they reach the abuser.

Besides enforcing the laws, the Bureau also regulates the legal trade in narcotic drugs. This entails establishing import, export, and manufacturing quotas for various controlled drugs. Physicians, pharmacists and other persons responsible for handling, dispensing or prescribing narcotics and dangerous drugs may be subject to periodic inspections by Bureau representatives. Such surveillance of legitimate trade insures an adequate supply of drugs for medicine and research, but at the same time helps preclude diversion of drugs into illicit channels.

FACT SHEET 1

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EDUCATION: The second area of responsibility for the new Bureau of Narcotics and Dangerous Drugs is education. In an effort to prevent drug abuse before it becomes an enforcement problem, the Bureau develops educational programs and disseminates factual information to the general public with particular emphasis on youth. As part of its program to make citizens aware of the hazards of narcotic and dangerous drug abuse, the agency provides literature, speakers, films and displays to a variety of organizations. It also works closely with educators, as well as local, state, and national Government agencies, associations and organizations in planning and conducting educational programs. An effort is made to conduct these educational activities at a regional level whenever possible.

RESEARCH: In an attempt to accumulate up-to-date information regarding the drugs under its jurisdiction, the Bureau encourages and sponsors controlled scientific research in the field of drug abuse. This is an extremely important program in that field and encompasses clinical, social, psychological, physical, and biological research. The Bureau also calls upon its Scientific Advisory Committee for opinions regarding whether or not certain new drugs should be brought under control.

LAW ENFORCEMENT COOPERATION: The most important type of cooperation between the Bureau of Narcotics and Dangerous Drugs and state and local law enforcement agencies is the free exchange of information and mutual assistance in investigative and enforcement activities--all aimed at stamping out illicit trafficking in narcotics and dangerous drugs.

The Bureau also provides specialized training in narcotic and dangerous drug control to local, state, federal and foreign law enforcement officers at Bureau headquarters and by seminars in the field in regions where drug abuse is a major problem. Special training is also provided to college deans and security officers, industrial plant security personnel, pharmacists and forensic chemists.

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 2

Federal Narcotic and Marihuana Laws

The term "narcotic drugs," includes opium and its derivatives such as heroin and morphine; coca leaves and its derivatives, principally cocaine; and the "opiates" which are specially defined synthetic narcotic drugs. Four principal statutes--the Narcotic Drugs Import and Export Act, the Harrison Narcotic Act, the Narcotics Manufacturing Act of 1960 and the Marihuana Tax Act--control narcotic drugs and marihuana. These laws are designed to insure an adequate supply of narcotics for medical and scientific needs, while at the same time they are planned to curb, if not prevent, the abuse of narcotic drugs and marihuana. In addition to these laws, there are other Federal legislative measures to lend additional control over narcotic drugs. Since, however, they are designed primarily to aid enforcement of the major statutes, they are not discussed here.

NARCOTIC DRUGS IMPORT AND EXPORT ACT: The Narcotic Drugs Import and Export Act authorizes the import of crude opium and coca leaves for medical and scientific needs in the United States. Import of other narcotic drugs is prohibited. Manufactured drugs and preparations may be exported under a rigid system of controls to assure that the drugs are used for medical needs only in the country of destination.

HARRISON NARCOTIC ACT: The Harrison Narcotic Act sets up the machinery for distribution of narcotic drugs within the country. Under the law, all persons who import, manufacture, produce, compound, sell, deal in, dispense or transfer narcotic drugs must be registered and pay a graduated occupational tax. The law also imposes a commodity tax upon narcotic drugs produced in or imported into the United States and sold or removed for consumption or sale.

Under the Harrison Act, sales or transfers of narcotic drugs must be recorded on an official order form. However, the transfer of narcotic drugs from a qualified practitioner to his patient and the sale of these drugs from a pharmacist to a patient with a lawfully written doctor's prescription are exceptions to this requirement.

FACT SHEET 2

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NARCOTICS MANUFACTURING ACT OF 1960: The Narcotics Manufacturing Act of 1960 develops a system of licensing manufacturers to produce narcotic drugs. It also provides a method to set manufacturing quotas for the basic classes of narcotic drugs, both natural and synthetic, insuring that an adequate supply of each drug will be available for medicine and science.

MARIHUANA TAX ACT: The Marihuana Tax Act requires all persons who import, manufacture, produce, compound, sell, deal in, dispense, prescribe, administer, or give away marihuana to register and pay a graduated occupational tax. No commodity tax is imposed on this drug. However, a tax is imposed upon all transfers of marihuana at the rate of $1 per ounce, or fraction of an ounce, if the transfer is made to a taxpayer registered under the act.

PENALTY PROVISIONS: Illegal sale or illegal importation of all narcotic drugs and marihuana can mean a penalty of 5 to 20 years in prison and the possibility of a $20,000 fine in addition. A second or subsequent offense receives a penalty of 10 to 40 years in prison with a possible $20,000 fine. There can be no probation or suspension of these offenses.

The penalty for all so-called possession type of offenses range between 2 and 10 years in prison for the first offense and between 5 and 20 years for the second offense. For a third or subsequent offense, the penalty can be from 10 to 40 years in prison. There can be no probation or suspension of sentence for a second or subsequent offense.

Because of the serious nature of narcotic addiction among young persons, the law establishes special penalties for the sale of narcotic drugs to a minor. The penalty for unlawful sale of heroin to a minor by an adult is a 10 year mandatory sentence in prison, while a penalty of 10 to 40 years in prison is levied when marihuana or other narcotic drugs are sold to a minor.

In 1966 special legislation was enacted to allow those violators who are narcotic addicts to return to useful, productive lives. The Narcotic Rehabilitation Act provides: (1) civil commitment of certain addicts in lieu of prosecution for Federal offenses, (2) sentencing of addicts to commitment for treatment after

conviction of Federal offenses, (3) civil commitment of persons not charged with any criminal offense, (4) rehabilitation and posthospitalization care programs and assistance to States and localities and (5) availability of parole to all marihuana violators presently incarcerated or subsequently convicted under Federal law.

All states have either adopted the Uniform Narcotic Act recommended in 1937 for the specific purpose of making all state narcotic laws analogous, or modified it to fulfill the state's individual needs. Similar to the Federal laws, state laws restrict legitimate traffic to qualified manufacturers, wholesalers, druggists, practitioners and researchers.

FEDERAL DANGEROUS DRUG LAWS: Three groups of dangerous drugs -- depressants, stimulants, and hallucinogens -- are controlled by the Drug Abuse Control Amendments to the Federal Food, Drug and Cosmetic Act passed in 1965 and amended in 1968.

DRUG ABUSE CONTROL AMENDMENTS: These amendments control drug abuse in two ways. One, they provide for stronger regulations in the manufacture, distribution, delivery, and possession. Two, they provide strong criminal penalties against persons who deal in these drugs illegally.

Thus, all registered manufacturers, processors and their suppliers, wholesaler druggists, pharmacies, hospitals, clinics, public health agencies, and research laboratories must take an inventory, keep accurate records of receipts and sales of these drugs and make their records available to Bureau of Narcotics and Dangerous Drug agents for examination. No prescription for a controlled drug older than 6 months can be filled nor can refills be made more than five times in the 6 month period.

PENALTY PROVISIONS: Illegal possession of the dangerous drugs can mean a maximum penalty of 1 year in prison or a $1,000 fine, or both. However, the offender may be placed on probation for a first offense. If he meets the condition of his probation, the court may set aside his conviction. A second

offense allows for probation, but does not allow for the conviction to be set aside. The third offense calls for a maximum prison term of 3 years or a fine of $10,000, or both.

A person who illegally produces, counterfeits, sells, manufactures or possesses dangerous drugs with intent to sell, may receive a maximum penalty of not more than 5 years in prison or a $10,000 fine, or both.

Because of the serious consequences of drug abuse among young people, special penalties are provided for those over 18 years of age who sell or give any of the controlled drugs to persons under the age of 21. The first offense carries a maximum penalty of 10 years in prison, or a fine of $15,000, or both; a second offense increases the maximum prison term to 15 years, or a fine of not more than $20,000, or both.

Many states have adopted legislation for dangerous drugs similar to the controls at the Federal level.

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 3

Illegal Traffic in Narcotic and Dangerous Drugs

Illicit traffic in narcotic and dangerous drugs spans the globe, mirroring its effect in the soaring patterns of drug abuse in this country.

THE PATTERN OF THE POPPY: There are two main currents of illicit traffic in opium and the opiates. One begins in the Middle East and ends in North America. The other pattern is from Southeast Asia directed to Hong Kong, Japan, China (Taiwan) and the West Coast of America. Secondary flows include routes from Mexico into the United States.

The North American continent is the principal target of illicit heroin traffic. The bulk of this drug is produced from opium poppies grown in Turkey. The raw opium is converted into morphine base in clandestine laboratories close to the growing areas and then shipped through Istanbul and Beirut and smuggled into France to be processed into heroin. At this point, the heroin may be smuggled directly into the United States or transported through Italy, Canada or Mexico. It is, nevertheless, destined for the United States market. Underground heroin trade from France generally involves large quantities of heroin smuggled by well-organized international traffickers who have contrived all types of devious methods and devices to conceal the contraband.

In the Far East, opium is cultivated in vast quantities in the Yunnan Province of China and the Shan and Kachin States in Burma. Although much is consumed by opium smokers in the region, considerable amounts of the drug find their way to the United States. In Burma and Thailand, large quantities of opium are converted to morphine base and smuggled to Hong Kong and Macao for local use or diverted to the United States. In recent years, an increasing demand for heroin by addicts in the Far East has somewhat decreased the supply available to United States addicts.

Opium is produced illegally in remote areas of

Mexico by farmers who elude the government's poppy eradication program. It is converted into heroin in clandestine laboratories and smuggled across the Mexican border into the United States concealed in automobiles, baggage, on travelers, or in any of a thousand possible ways limited only by the smuggler's imagination.

THE MARIHUANA MARKET: Although Near and Middle Eastern countries are a major center for production of the cannabis plant, from which marihuana is derived, most marihuana in the United States traffic grows in Mexico. Large quantities of marihuana, illegally cultivated in Mexico, are smuggled across the border into this country. Occasionally marihuana grown in the United States is also found in the illicit traffic.

TRAFFIC IN COCAINE: The cocaine traffic in the United States begins in the Andes Mountain regions of Bolivia, Chile, Peru, Columbia and Ecuador where the coca leaf is grown. These leaves are processed into cocaine in clandestine laboratories and then smuggled into the United States through Miami and New York, often in airplane baggage or ship cargo. One important pattern in this trade originates in Peru through Ecuador and Panama, then to Mexico and the United States. Another route starts in Chile, extends through Latin America to Pacific coast ports and into the United States. A third route can be traced from Bolivia through Brazil to the West Indies and North America.

ILLEGAL TRAFFIC IN DANGEROUS DRUGS: The vast majority of amphetamines and barbiturates in the illicit traffic are diverted from legal channels. A portion of illicit amphetamines and barbiturates are smuggled into the United States from Mexico. They may have been produced in secret Mexican laboratories or legitimately manufactured or diverted to Mexico from legally produced U. S. stocks. Other portions of the illegal supply originate through theft and by production in clandestine laboratories, operating illegally in garages, basements, warehouses -- even in trucks. Some registered manufacturers, under the cloak of legality, make quantities of dangerous drugs unlawfully and dispose of them through the black market trade. The illegal "bulk peddler" is an important link in the traffic in dangerous drugs who deals in hundreds of thousands of capsules and tablets.

Since there is no legal production of hallucinogenic drugs in the United States, the illicit traffic depends on production from illicit laboratories or smuggled drugs from Europe, Mexico, Canada, and Australia.

DISTRIBUTION AND DIVERSION: Methods of distribution of narcotic and dangerous drugs are similar. Both are transferred from the major trafficker to the distributor, then to the street peddler and finally to the user.

Once the drugs reach the user the cost has escalated. For example, the same 1 kilogram of raw opium grown in Turkey and sold to an underworld broker for $350 will produce nearly 45,000 packets of 5% pure heroin worth $5.00 each or a total of $225,000. Pills have their profit too. Stimulants and depressants can be manufactured for approximately 1/2 to 1 cent each. On the black market the going price is approximately 20¢ for a pill or capsule.

Still, the price of <u>any</u> drug is totally dependent on the location of the user, demand for the drug, availability of the drug and purity of the drug.

Most narcotic and dangerous drugs (excluding heroin, marihuana and hallucinogenic drugs) are valuable medicines. Some drugs, such as those used for the common cold, can be sold over the counter. Other more potent substances, including narcotics, amphetamines and barbiturates, are required by law to be sold only with a physician's prescription. So, the drug abuser has found various ways to obtain his drugs illegally. He may alter the date and dosage of an existing prescription or forge a new one on a prescription pad stolen from a doctor. He may purchase his supply from a truck stop, newstand, bar or retail peddler. He may even make arrangements with an unscrupulous pharmacist to purchase dangerous drugs without a prescription.

Drugs intended for medicine or scientific research are also diverted into the illicit drug trade by dishonest plant employees, by over production, and thefts from supplies in warehouses, hospitals, pharmacies and persons licensed to handle the drugs.

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 4

The Drug Abuser

Although much is known about the effects of drugs with abuse potential, the abuser himself remains an enigma. Slum conditions, easy access to drugs, peddlers and organized crime have all been blamed for the problem. While any of these factors may contribute, no single cause nor single set of conditions clearly leads to drug dependency, for it occurs in all social and economic classes. The key to the riddle lies within the abuser himself. True, drug dependency cannot develop without a chemical agent. Yet, while millions are exposed to drugs by reason of medical need, relatively few turn to a life of drugs. Even in metropolitan areas, where drugs may be available on street corners, only a small percentage of the individuals exposed join the ranks of the abusers.

For the most part, the hard-core abuser suffers from certain types of emotional instability which may or may not have been apparent prior to his initial drug abuse experience. Occasional cases may have a background (often undiagnosed) of psychiatric disorder. Some psychiatrists have said that addicts have an inherent inability to develop meaningful interpersonal relationships. Others have said that addicts are persons who are unwilling to face the responsibility of maturity. Adolescent addicts may have suffered childhood deprivation or overprotectiveness. Or, they simply may not be able to cope with the physical and emotional changes accompanying this period. It is significant that many addicts have their first drug experience in their teens.

The transition from childhood to adulthood is seldom smooth, and many individuals are not emotionally equipped to meet the demands they face. The early and middle teens bring a loosening of family ties, a diminution of parental authority, increasing responsibility and sexual maturing. Beset with anxiety, frustration, fear of failure, inner conflicts and doubts, the adolescent may find that amphetamine and marihuana promote conversation and friendship, barbiturates loosen inhibitions, hallucinogens heighten sensations and narcotics provide relief and escape.

FACT SHEET 4 Drug abuse may provide the entree to an "in group" or be a way of affirming independence by defying authority and convention.

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In general, drug abusers fall into three main groups. The first group employs drugs for a specific or "situational" purpose. Examples; the student who uses amphetamine to keep awake at exam time; the housewife who uses anti-obesity pills for additional energy to get through household chores; the salesman who uses amphetamines, to keep awake while driving all night to an early morning appointment. Such individuals may or may not exhibit psychological dependence.

The second group consists of "spree" users, usually of college or high school age. Drugs are used for "kicks" or just the experience. There may be some degree of psychological dependence, but little or no physical dependence because of the sporadic and mixed pattern of use. Drug sprees constitute a defiance of convention, an adventurous daring experience, or a means of having fun. Unlike hard-core abusers, who often pursue their habit alone or in pairs, spree users usually take drugs only in group or social situations.

The third is the "hard-core" addict. His activities revolve almost entirely around drug experiences and securing supplies. He exhibits strong psychological dependence on the drug, often reinforced by physical dependence when certain drugs are being used. Typically, the hard-core addict began drug abuse on a spree basis. He has been on drugs for some time and presently feels that he cannot function without drug support.

Obviously, there is much overlapping between these groups, and a "spree" user or "situational" user may deteriorate to the "hard-core" group. The transition occurs when the interaction between drug effects and a personality causes a loss of control over drug use. The drug becomes a means of solving or avoiding life's problems.

Slum sections of large metropolitan areas still account for the largest number of known heroin abusers. But frustration, immaturity, and the emotional deprivation are not peculiar to depressed neighborhoods, and the misuse of drugs by middle and upper economic class individuals is being recognized with increasing frequency. Drug dependence is not discriminating. A drug, an individual, an environment which predisposes use, and a personality deficiency are the key factors in its development.

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 5

Drug Abuse

The problem of drug abuse is widespread. Every day lives are being shackled in chemical chains, but the problem is much larger than most people realize. It involves not just a distant world of criminals and "dope fiends." Many reputable people in the real, close-at-hand world are caught in the web of drug abuse. But the real cost of the problem is found not just in the number of people lost to a productive society. Drug abuse feeds millions of dollars into organized crime, causes hundreds of thousands of dollars in property loss and places the burden of responsibility on the rest of society to reclaim its members.

INCIDENCE OF ABUSE: While no one really knows how many drug abusers there are in this country, at the close of 1967 some 62,045 active narcotic addicts were recorded. This means there is approximately one narcotic addict among every 3,228 persons. Most of the addicts are from four states. New York alone accounts for over 50% of the addicts while the percentage shoots up to nearly 80% with the addition of California, Illinois and New Jersey. Nearly 46% of these addicts are between the ages of 21 and 30.

These figures are based on reports submitted to the Bureau of Narcotics and Dangerous Drugs by law enforcement agencies and private agencies. As opposed to the majority of the "hard" narcotic users who are reported by law enforcement agencies or private agencies, the users of marihuana, hallucinogens, stimulants, and depressants are seldom discovered unless they are involved in a criminal action and arrested. Marihuana and the hallucinogens are not physically addicting thereby users are normally only detected through arrest or if they require medical treatment. The stimulants and depressants are prescribed by doctors, but if a person takes more than the prescribed dosage, or even uses them without a prescription, who is to know? Therefore, there is no way at the present time to document the

number of abusers of these drugs. There have, however, been estimates, and controlled surveys which indicate there may be as many as 20 million drug abusers in the country, although this figure cannot be accepted as fact. One thing is a fact - any individual who is dependent on a drug for any reason other than one established by the person's physician is an abuser of drugs.

COST TO SOCIETY: Drug abuse drains millions of dollars from society. First, the very cost of the drugs themselves on the illicit market is exorbitant. The average addict spends approximately $15 each day for his drug. This means for seven days a week, 52 weeks each year, he would require about $5,475--there are no weekends or holidays off from a drug habit. Some of the hard narcotic addicts require $100 a day instead of $15. The habit produces the craving and the addict must produce the money. Most of this money feeds directly into the organized criminal structure.

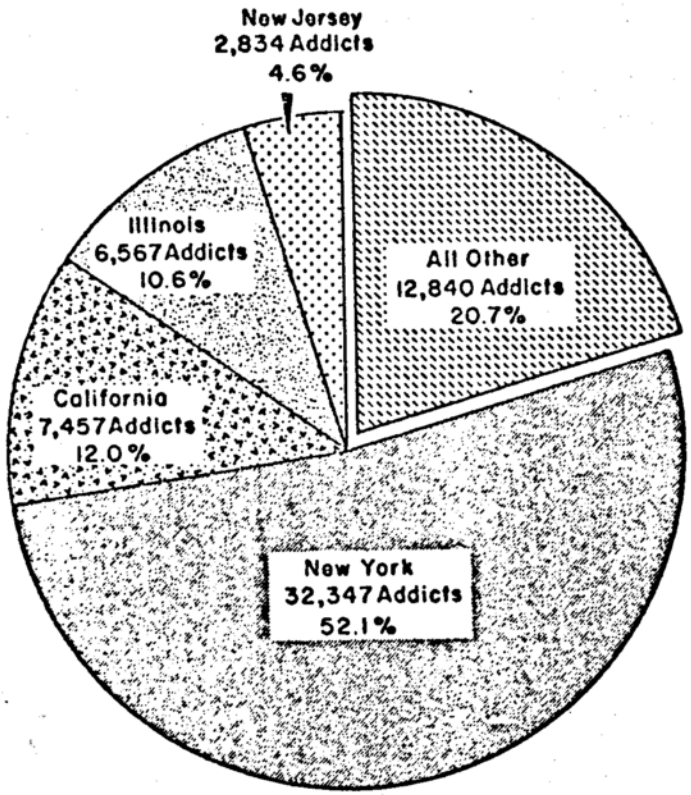
Because most addicts cannot obtain the cash to buy their drugs legally, they turn to crime. Most convert stolen merchandise into cash. It takes about $3-5 in stolen goods to get $1 cash. So, to support a $15 a day habit, the addict has to steal $50 worth of property a day or $18,250 a year. Assuming all addicts in the country use this method -- and they don't, others rely on prostitution, shoplifting, burglery, forgery, theft of legitimate drugs or illegal production of drugs -- more than $1,132,321,250 worth of merchandise must be stolen to provide narcotics for this country's addict population each year.

The taxpayer also pays the bill to rehabilitate the addict. A research psychiatrist for one treatment program indicates it costs his state approximately $1,300 a year to rehabilitate just one addict. Doctors in another program estimate six weeks of inpatient treatment followed by aftercare total $3,000. Just assuming these treatment programs were available to all addicts in the country, society would pick up a tab ranging from $62,300,000 to $186,000,000.

While these figures are alarming, they do not begin to reflect the total cost of the abuse of narcotics and dangerous drugs. Thousands of drug abusers live for years in the shadows of society -- only half alive, only half free.

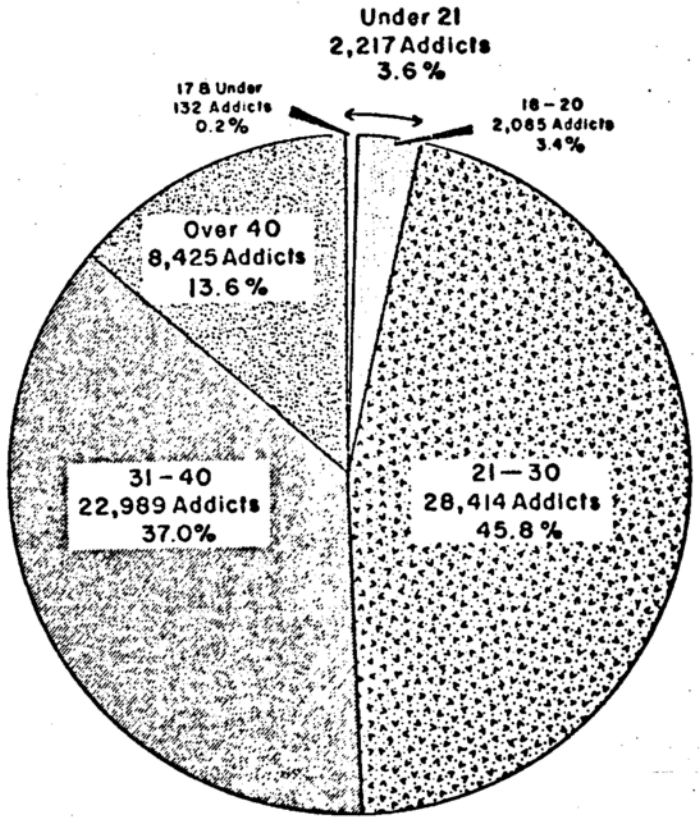
ACTIVE NARCOTIC ADDICTS REPORTED IN SEVERAL SELECTED STATES AS OF DECEMBER 31, 1967

Total Active Addicts 62,045

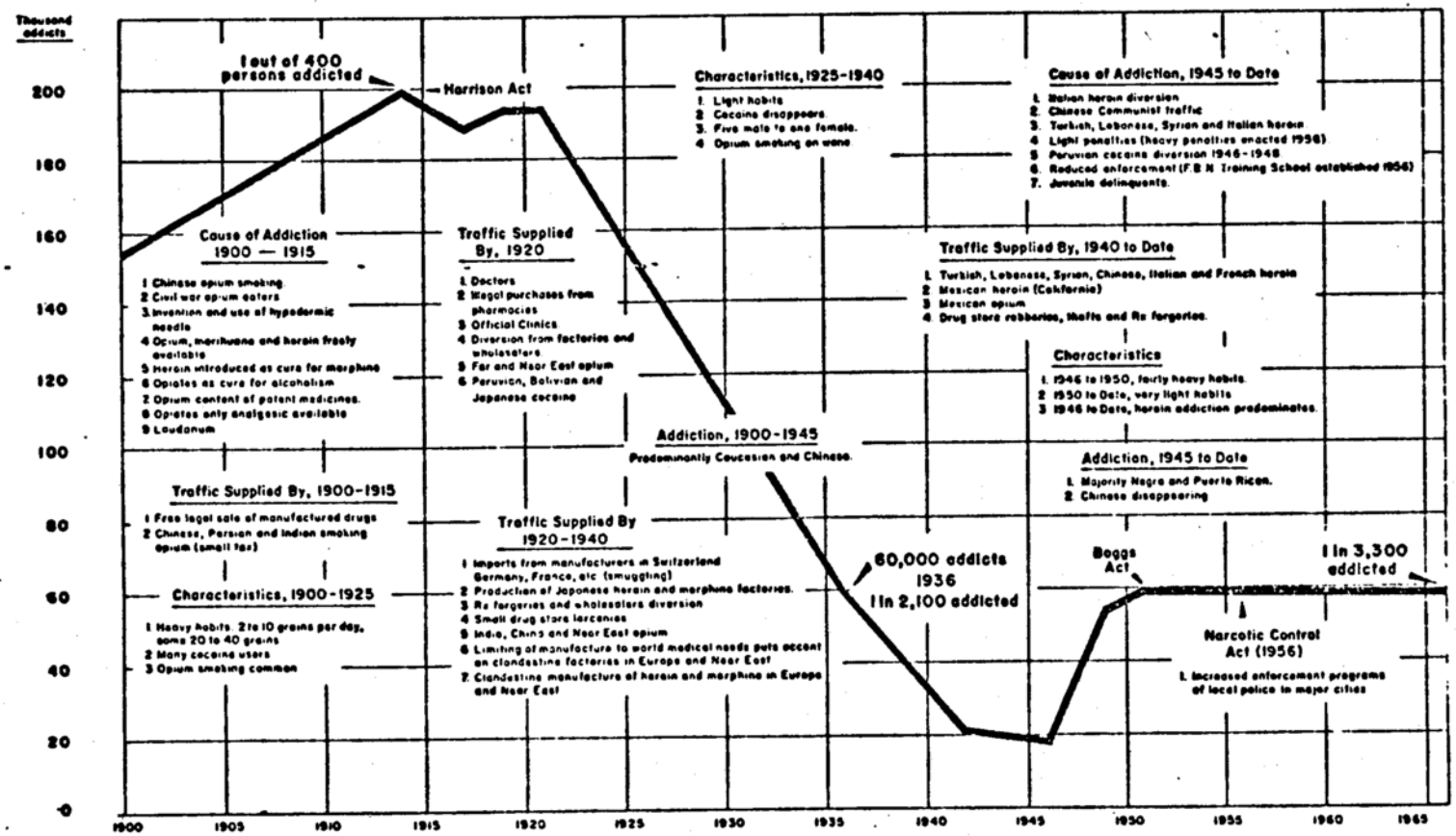


AGE OF ACTIVE NARCOTIC ADDICTS AS OF DECEMBER 31, 1967 IN THE UNITED STATES

Total Active Addicts 62,045



HISTORY OF NARCOTIC ADDICTION IN THE UNITED STATES



BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 6

Narcotic Drugs

The term narcotic generally refers to opium and drugs made from opium, such as heroin, codeine and morphine. These drugs are distilled from the juice of the base of the poppy flower and refined into some of the most valuable medicines known to man, but also some of the most thoughtlessly abused drugs in the world. In addition other drugs have been included under the federal law as narcotics, which are pharmacologically entirely different from the opium derivatives. An example of this is cocaine, which is a derivative of the coca leaf and a stimulant to the central nervous system. Additionally, a number of specially defined synthetic drugs, called "opiates," are also classified as narcotic drugs under the federal law.

MEDICINAL NARCOTICS: Natural and synthetic morphine-like drugs are the most effective pain relievers known. They are among the most valuable drugs available to physicians and are widely used for short-term acute pain resulting from surgery, fractures, burns, etc., as well as to reduce suffering in the later stages of terminal illnesses such as cancer. In fact, morphine is used as the standard of pain relief by which other narcotic drugs are evaluated.

These drugs depress the central nervous system to produce a marked reduction in sensitivity to pain, drowsiness, sleep, and reduce physical activity. Side effects can include nausea and vomiting, constipation, itching, flushing, constriction of pupils and respiratory depression.

Manufacture and distribution of medicinal opiates are stringently controlled by the Federal government through laws designed to keep these products available only for legitimate medical use. Those who distribute these drugs are registered with Federal authorities and must comply with specific record-keeping and drug security requirements.

ABUSE: The abuse of narcotic drugs dates from

ancient times and its seriousness has increased with the years. The appeal of morphine-like drugs lies in their ability to reduce sensitivity to both psychological and physical stimuli and to produce a sense of euphoria. They dull fear, tension and anxiety. Under the influence of morphine-like narcotics, the addict is usually lethargic and indifferent to his environment and personal situation.

Chronic use leads to both physical and psychological dependence. Tolerance develops and ever-increasing doses are required in order to achieve the desired effect. As the need for the drug increases, the addict's activities become increasingly drug-centered.

When the drug supplies are cut off, withdrawal symptoms may develop. Characteristically they may include nervousness, anxiety, sleeplessness, yawning, running eyes and nose, sweating; enlargement of the pupils, "gooseflesh," muscle twitching; severe aches in back and leg muscles, hot and cold flashes; vomiting, diarrhea, increase in breathing rate, blood pressure and temperature, and a feeling of desperation and an obsessional desire to secure a "fix." However, the intensity of withdrawal symptoms varies with the degree of physical dependence and the amount of drug customarily used. Typically the symptoms begin about 8 to 12 hours after the last dose. They increase in intensity and reach a peak in 36 to 72 hours. At this point the symptoms of withdrawal gradually diminish over the next 5 to 10 days, but insomnia, nervousness and muscle aches and pains may last for several weeks.

Addicts live under the perpetual threat of an overdose. This can happen in several ways. An addict may miscalculate the strength of his dose or the drug may be stronger than it was represented to be at the time the addict bought it. Death from narcotic overdosage is caused by respiratory depression.

Although the possibility of death from an overdose of narcotics is an ever-constant danger to the addict the harmful effects to the addict are usually indirect. Because addicts do not feel hungry, they often suffer from malnutrition. Because they are pre-occupied with drug - taking addicts usually neglect themselves. They are more apt to contract infections because their nutritional status is poor and because they may inject

contaminated drugs intravenously and are likely to be using poor or unsterile injection techniques. This may result in serious or fatal septicemia (blood-poisoning), hepatitis, and absesses of the liver, brain and lungs.

HEROIN: Known to the addict as "H," "boy," "horse," "white stuff," "Harry," "hairy," "joy powder," or "doojee," heroin produces an intense euphoria making it the most popularly abused narcotic. Similar to all narcotic drugs, a tolerance develops rapidly and the abuser must ingest increasingly larger quantities to get his "kicks."

Heroin is usually mixed into a liquid solution and injected into a vein, the process is called "mainlining." While other methods of administration are by mouth or by inhalation, "mainlining" gives the most pronounced and rapid effect. The first emotional reaction is an easing of fears and relief from worry. This is often followed by a state of inactivity bordering on stupor.

Heroin is synthesized from morphine, and grain for grain, is up to ten times more potent in its pharmacologic effects. Pure heroin is "cut" or diluted by the trafficker with substances like milk sugar or quinine or both. By the time the drug is sold to the addict the heroin content ranges from 3 to 10%.

MORPHINE: Morphine is called "white stuff," "M," "hard stuff," "morpho," "unkie," and "Miss Emma" by the street addict. It is the drug of choice for relief of pain, but takes second place to heroin as a drug of abuse. Still, morphine is widely used by addicts, particularly when heroin is difficult to obtain. Euphoria can be produced with small doses and tolerance builds rapidly.

CODEINE: More commonly abused in the form of the exempt narcotic cough preparations, codeine is less addictive than morphine or heroin and less potent in terms of inducing euphoria. When withdrawal symptoms occur, they are less severe than with the more potent drugs.

HYDROCODONE (DIHYDROCODEINONE): When classed as an exempt preparation, hydrocodone was fairly popular.

However, since its classification as a narcotic, little effort has been expended in obtaining the drug in any great quantity.

HYDROMORPHONE (DIHYDROMORPHINONE): Hydromorphone, like morphine, is the next choice after heroin. Although almost as potent as heroin, the drug does not appear to have the thrill associated with mainlining heroin.

MEPERIDINE: When first produced this drug was claimed to be without addicting potential. Experience, however, proved otherwise(as it did with morphine and heroin). Addiction is slower to develop and less intense than with morphine.

OXYCODONE (DIHYDROHYDROXCODEINONE): Oxycodone has recently been classified as a drug with high addiction potential. Although effective orally, most addicts dissolve tablets in water, filter out the insoluble binders and "mainline" the active drug.

EXEMPT NARCOTICS: Under Federal law, some preparations containing small amounts of narcotic drugs may be sold without a prescription. The reason for their exemption lies in the fact that very large quantities of such preparations would have to be consumed regularly over a considerable time to produce significant dependence. Pharmacists selling exempt preparations must have a Federal narcotic stamp.

The best known of these exempt narcotics are paregoric and certain cough mixtures. Paregoric is a liquid preparation which contains an opium extract and is used primarily to counteract diarrhea. Exempt cough mixtures containing codeine are useful in suppressing irritation or uncontrollable cough in certain upper respiratory infections.

Although these preparations are reasonably safe and free of addiction potential when used as directed, they can be abused. Addicts will sometimes turn to paregoric or cough syrups -- as well as other drugs -- when heroin is in short supply, but large quantities must be consumed by addicts when substituted for the more potent drugs.

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 7

Marihuana

All marihuana comes from the Cannabis sativa (L.) plant which is more frequently called Cannabis indica, Indian hemp or simply, hemp. The plant grows in mild climates throughout the world, especially Mexico, Africa, India and the Middle East. It also grows in the United States, where the term "marihuana" embraces all the fancy and vernacular names --"hashish," "bhang," "ganja," "charas," "cannabinol," "tetrahydro-cannabinol," "pot," "tea," "weed," "grass," and "Mary Jane" -- for parts of or preparations of the cannabis plant, excluding the stalks and sterilized seeds.

The potency of the drug ranges from the limited effects of poorly harvested marihuana to the severe effects of "hashish" or "charas". Its strength differs from place to place, depending on where it is grown, how it is grown, how it is prepared for use and how it is stored. For example, the marihuana grown in the United States is much weaker and far less popular than that grown in Mexico.

USES OF MARIHUANA: Although known to man for nearly 5,000 years, marihuana is one of the least understood of all natural drugs. Its fibers have been used to manufacture twine, rope, bags, clothing and paper. The sterilized seeds are occasionally used in various feed mixtures, particularly for bird seed.

In the past, marihuana has also been used in the treatment of a variety of clinical disorders. Very early in China's history, it was used to relieve pain during surgery. In India it was used as a medicine. In the United States, it was used as an analgesic and a poultice for corns. However, marihuana no longer has any acceptable medical use in the United States.

Traffic in and use of drugs from the cannabis plant is now legally restricted in nearly every civilized country in the world, including the United States.

EFFECTS OF MARIHUANA: When smoked, marihuana quickly enters the bloodstream and acts on the brain

and nervous system. It affects the user's mood and thinking. The drug's effects on the emotions and senses vary widely, depending on the amount and strength of the marihuana used. The social setting in which it is taken and the effects anticipated by the user also influence the individual's reaction to the drug.

Usually, the drug's effect is felt quickly, in about 15 minutes after inhaling the smoke of the cigarette. Its effects can last from 2 to 4 hours. The immediate physical effects of marihuana intoxication include some loss in coordination of the limbs. There is an increase in pulse rate; an abnormal lowering of body temperature; an insatiable hunger; and inflamation of the mucous membranes and bronchial tubes. Other effects include fantasy, exhilaration of mood; the feeling of being above reality; loss of spatial sense; a loss of timing and an often uncontrollable hilarity over something which is not particularly amusing to a normal person.

When larger doses are used, extremely vivid hallucinations often occur. There may be panic and an inordinate fear of death, illusions and periods of paranoia. A sufficiently large dose may result in a toxic psychosis.

A person under the influence of marihuana finds it harder to make decisions that require clear thinking. He finds himself more easily open to other people's suggestions. Tasks which require good reflexes and thinking are affected, and this makes it dangerous to drive while under the influence of the drug.

Marihuana does not cause physical dependence like heroin or other narcotics. This means that the body does not become dependent on the continuing use of the drug. However, recent studies in England uncovered the development of tolerance and the need to increase the dose. Withdrawal from marihuana does not produce physical sickness as withdrawal from certain other narcotic drugs does, though continued use of the drug causes the build-up of a psychological dependence.

OTHER QUESTIONS: In the past marihuana has earned a reputation for inducing criminal behavior and there are a number of recent studies which demonstate a relationship between marihuana usage and crime. While no one can say all marihuana users have committed or will commit

crimes, the important question for society is how many crimes would not be committed were it not for marihuana.

In 1967 a study of narcotic addicts from various cities showed that more than 80 percent had previously used marihuana. A more recent study revealed that 40% of a control group of marihuana users had progressed to narcotic addiction within a period of 5 years. Although no direct cause-and-effect link between the use of marihuana and narcotic addiction has been found, researchers point out that a person predisposed to abuse of one drug may be likely to abuse other, stronger drugs. Also, users of one drug may be exposed to a variety of other drug users and sellers and through this association may be encouraged to experiment with more potent drugs.

In 1966, the action ingredient of marihuana, tetrahydrocannabinol, was synthesized in pure form by an Israeli scientist with support from an American grant. Research is currently being done into the short and long-term effects of the drug. It is anticipated that in the near future scientists will better understand marihuana and its effects on memory, mood, perception and other physiological and psychological functions. It is also expected that reliable scientific data will become available with regard to chronic toxicity resulting from long-term use of the drug.

FACT SHEET 8

Depressants (Sedatives - Hypnotics)

This group includes the barbiturates, the most widely abused among the depressants.

MEDICAL USES: Barbiturates depress the central nervous system, and are prescribed in small doses to induce sleep. They are also valuable in cases of acute anxiety, hyperthyroidism, and high blood pressure. Because of their sedative but non-analgesic effects, barbiturates are used in treating both physical and mental illnesses.

ABUSE: Continued and excessive dosages of barbiturates result in slurring of speech, staggering, loss of balance and falling, quick temper, and a quarrelsome disposition. Overdoses, particularly when taken in conjunction with alcohol, result in unconsciousness and death, unless proper medical treatment is given to the user.

While an unsteady gait and speech problems may be signs of neurological disorders, such as multiple sclerosis, such diseases are uncommon among young men. Usually, the appearance of drunkenness without an alcoholic breath indicates barbiturate intoxication.

Although physical dependence does not develop with the dosages normally used in medical practice, it does occur with the excessive doses used by drug abusers. A tolerance is also developed. Withdrawal symptoms usually are exceedingly dangerous and can cause death.

THE BARBITURATES: Barbiturates are known to drug abusers as "barbs," "candy," "goofballs," "sleeping pills," or "peanuts." Specific types are often named after their color or shape: For example,

1. Pentobarbital sodium (in solid yellow capsule form) is known by abusers as "yellow jackets," or "nimbies" (after a trade name of

this drug).

2. Secobarbital sodium (in red capsule form) is called "reds," "pinks," "red birds," "red devils," and "seggy" and "seccy" (after trade names).

3. Amobarbital sodium combined with secobarbital sodium (in red and blue capsule form) is known as "rainbows," "red and blues," or "double trouble."

4. Amobarbital sodium (in solid blue capsule form) is known by abusers as "blues," "blue birds," "blue devils," or "blue heavens."

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 9

Hallucinogens

Hallucinogens make up one of three general categories of dangerous drugs (stimulants and depressants are the others), and are so named because they may produce hallucinations or illusions of the various senses. When experiencing an hallucination or illusion, a person's ability to perceive is based not upon objective reality but upon distortion or imagination.

Most of the hallucinogenic drugs in illicit channels or distribution are manufactured in clandestine laboratories. Legitimate chemical manufacturers do produce some of the hallucinogenic drugs, but only for investigational or chemical purposes. Some of these drugs have been diverted to the illicit market through thefts or illegal purchases. Although openly and irresponsibly promoted as a means of expanding consciousness, the hallucinogens have yet to be proved valuable medically. Hence, there are neither standard dosage forms nor markings which make visual identification possible. Illicit labs produce hallucinogens in the form of capsules, tablets, powders or liquids, while peddlers and users will utilize many methods to pransport or hide the drugs. For example LSD has been found in sugar cubes, candy, paper, aspirin, jewelry, liquor, cloth, and even on the back of postage stamps.

SYMPTOMS OF ABUSE OF HALLUCINOGENS: Usually hallucinogens distort or intensify the user's sense perception and lessen his ability to discriminate between fact and fantasy. A user may speak of "seeing" sounds and "hearing" colors. His judgments of direction, distance, and objectivity are generally out of proportion. His pupils are dilated and his eyes are extremely sensitive to light. Restlessness and sleeplessness are common until the drug wears off. Mental effects of the drugs are unpredictable, ranging from illusions, exhilaration, withdrawal from reality, and violence or self-destruction, to sheer panic. This unpredictability of the effects of hallucinogenic drugs is the greatest danger to users. As with stimulants and depressants, the user of

hallucinogens may develop a psychological dependence upon these drugs. However, unlike depressants, hallucinogens have not yet been shown to produce a physical dependence.

LSD-25 (LYSERGIC ACID DIETHYLAMIDE): Known tc the "hippie" cult as "acid," LSD-25 is derived from the ergot fungus of rye, a disease of the rye grain. It can be found and prepared as a liquid or powder. A dose of 50 to 200 micrograms (no larger than the point of a pin) will take the user on a "trip" for approximately 8 hours, depending upon the individual's physical and psychological susceptibility.

Physical reactions may include dilated pupils, lowered temperature, nausea, "goose bumps," profuse perspiration, increased blood sugar and rapid heart beat. During the first hour after ingestion the user may experience visual changes followed by extreme changes in mood. In the hallucinatory state, the user may suffer loss of depth and time perception accompanied by distortions with respect to size of objects, movements, color, spatial arrangement, sound and touch. During this period the user's ability to perceive objects through the senses, to make sensible judgments, and to see common dangers is lessened and distorted, hence making him susceptible to personal injury or even sudden death. He may also injure others.

After the "trip" the user may suffer acute anxiety or depression for a variable period of time. Recurrences of hallucinations have been reported days, or months, after the last dose.

Regular use of LSD is not known to cause physical addiction, but if the experience is pleasant to the user, a certain psychological dependence may develop. It is possible, too, that the user, on regular use, may build up a tolerance to the drug -- wherein regular doses produce lesser effects or no effect at all thus necessitating an increase in the amount consumed.

Together with other hallucinogens, LSD is considered an investigational drug and its action on the body and nervous system is not yet understood. It has become the subject of considerable scientific study. Recently independent experiments with animals show that LSD may cause central nervous system malfunctions. Research is currently being conducted into possible chromosomal effects from the use of LSD.

Experimentation by approved investigators, with alcoholics and the mentally disturbed, will determine if the drug holds any

therapeutic benefits. Because of the abuse of LSD, the only licensed manufacturer of the drug voluntarily ceased manufacture in April 1966.

Since the Government has taken steps to curb the illegal traffic in lysergic acid and lysergic acid ditheylamide drug abusers use LSD of untested purity and strength. Use of bootlegged "bathtub" LSD, peddled to the abuser in various dosage forms of uncertain quantity and purity may be even more dangerous than the use of legally manufactured LSD. The only legitimate supply of LSD for purposes of scientific research is available through the National Institutes of Mental Health, Bethesda, Maryland.

MESCALINE (PEYOTE): Derived from the buttons of the peyote cactus plant, mescaline has been used for centuries by various Indian tribes of Central America and the southwestern United States. The Native American Church, which uses peyote in religious ceremonies, has been exempted from certain provisions of the Federal law. Generally ground into a powder, peyote is taken orally. A dose of 350 to 500 milligrams of mescaline produces illusions and hallucinations for 5 to 12 hours. Like LSD, mescaline is not likely to produce physical dependence but may cause psychological dependence.

PSILOCYBIN AND PSILOCYN: Other drugs derived from plants are psilocybin and psilocyn, both obtained from certain mushrooms generally grown in Mexico. Like mescaline, they have been used in Indian rites for centuries. Their effects are similar to those of mescaline, except that a smaller dose of from 4 to 8 milligrams is ample. The experience lasts for approximately 6 hours. Psilocybin and psilocyn do not produce physical dependence, although users have been known to develop a tolerance to them

DMT: A short-acting hallucinogen, DMT is found in the seeds of certain plants native to the West Indies and parts of South America. The powdered seeds have been used for centuries as a snuff -- called "cohoba" -- in religious ceremonies to produce a state of mind which the Haitian natives claimed enabled them to communicate with their gods. It is also produced synthetically by clandestine chemists. DMT is not taken orally, but its vapor is inhaled from the smoke given off by

burning the ground seeds or powder mixed with tobacco, parsley leaves, or even marihuana. It can also be injected. The effects of a single dose -- 60 to 150 milligrams -- last only from 45 to 60 minutes and will produce mainly hallucinations. It may cause psychological dependence, but not physical dependence.

BUFOTENINE: A recent addition to the list of hallucinogens controlled under the Drug Abuse Control Amendments is bufotenine, which is related chemically to DMT. Bufotenine is derived from the dried glandular secretions of certain toads as well as from the amanita fungus. It, too, can be prepared in the laboratory. Generally injected rather than taken orally, a dose of 15 milligrams will produce visual disturbances and alterations of time and distance perceptions. Bufotenine is also used as a snuff. Its symptoms appear almost immediately. It also has severe and stressful physical effects, especially on blood pressure.

IBOGAINE: Another compound recently brought under control, ibogaine is derived from the roots, bark, stem, and leaves of an African shrub. It was also used in primitive society. Natives were known to use the compound while stalking game to enable them to remain motionless for a long period of time while still maintaining normal alertness. High doses reportedly cause excitement, intoxication, mental confusion, and hallucinations. Ibogaine can be made in the laboratory but with considerable difficulty.

DET (DIETHYLTRYPTAMINE): One of the latest hallucinogenic drugs to be brought under Government control, DET is chemically related to DMT, but has not yet been found in plant life. However, it can be easily produced in a laboratory. Injecting a dose of 50 to 60 milligrams causes visual distortions, dizziness, and a vague sense of time. The experience may last from 2 to 3 hours. DET is usually taken by smoking it in a mixture of tobacco, tea, parsley, or marihuana.

DOM (STP): DOM, known popularly as "STP," appeared on the psychedelic scene in the early spring of 1967. Articles in the underground newspaper promoted its use, claiming STP to be stronger than LSD. The compound was identified by FDA chemists to be 4-methyl-2, 5-dimethoxyamphetamine or DOM. Little is known about the therapeutic, pharmacological, or psychological effects. However, doses of 1 to 3 milligrams produce euphoria and

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doses of more than 3 milligrams can cause pronounced hallucinogenic effects lasting 8 to 10 hours. One of the approved investigators of the drug states that "STP" is almost 200 times more powerful than mescaline but only one-tenth as potent as LSD. "STP" is not found in nature but is synthesized in the laboratory and has appeared in illegal channels in tablet form.

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 10

Stimulants

This group of drugs, which includes the amphetamines, directly stimulates the central nervous system, producing excitation, alertness, increased initiative and activity, and an ability to go without sleep for protracted periods of time.

MEDICAL USES: Amphetamines are prescribed for overweight patients, to reduce their appetites; in cases of narcolepsy, a disorder characterized by an overwhelming need for sleep; for Parkinson's disease; and in some cases of minor mental depression, because of their mood-elevating effect.

ABUSE: Because the body developes a tolerance to amphetamines, abusers increase their dosages gradually, which wildly exaggerates the normal effects of these drugs and results in excitability, talkativeness, tremor of the hands, enlarged pupils, and heavy perspiration. In serious cases, a drug psychosis resembling schizophrenia develops with delusions and hallucinations, both auditory and visual. These effects are particularly dangerous for long-distance drivers. They may take amphetamines to avoid the need for sleep, and may be unaware of their fatigue until it overcomes them, resulting in serious highway accidents. Criminals frequently use amphetamines to increase their courage and alertness during their exploits.

While amphetamines do not cause physical addiction, abusers develop a psychic or emotional dependence on these drugs. Continued abuse of amphetamines can cause high blood pressure, abnormal heart rhythms, and may even be responsible for the precipitation of heart attacks.

Amphetamines are known to drug abusers as "pep pills," "wake-ups," "eye-openers," "co-pilots," "truck drivers," or "bennies." As with other dangerous drugs, the slang names frequently are derived from the shapes and colors of capsules and tablets, their effects, or their uses. Some examples are:

1. Amphetamine sulfate (in rose-colored, heart-shaped tablets) is known as "peaches," "roses," "hearts," or "bennies."

2. Amphetamine sulfate (in round, white, double-scored tablets) is called "cartwheels," "whites," or "bennies."

3. Long-acting amphetamine sulfate capsules (found in many colors) are known as "coast-to-coast" "L.A. turn-abouts," "co-pilots," or "browns."

4. Amphetamine sulfate (in oval-shaped tablets of various colors) is called "footballs" or "greenies."

5. Injectable amphetamine (in the jargon of the abuser) is called "bombido," "jugs," or "bottles."

6. Dextroamphetamine sulfate (in orange-colored, heart-shaped tablets) is known as "hearts," "oranges," or "dexies" (after a trade name of this drug).

METHAMPHETAMINE: Methamphetamine is chemically related to amphetamine but it has more central nervous system activity and correspondingly less effect on blood pressure and heart rate than amphetamine.

When used under the careful supervision of a physician, methamphetamine has several benefits. These include its use to raise and maintain the blood pressure, in controlling obesity and weight reduction, in treating diseases such as narcolepsy, Parkinson's disease, certain mental disorders, and in countering overdosage of depressant drugs.

The abuse of methamphetamine (slang names; "Speed," "Crystal," "Meth.") is more widespread than ever before. Many abusers 'shoot' (take intravenously) methamphetamine and eventually may build up to doses more than 100 times the medicinal dose and may do so several times a day. Thus, it is not surprising to observe these persons in an acute toxic state with death as a possible outcome.

The acute toxic effects of methamphetamine are manifested by increased activity, and without the necessary judgement and consideration that should accompany this increase in activity.

Irritability, confusion, assaultiveness, delirium, and hallucinations, all followed by depression and fatigue, are serious effects if the user has not come to a violent end before the effects of the drug are over.

Indeed, the drug culture slogan, 'speed kills,' is not just a play on words. Methamphetamine's lethal qualities are respected even in the hippie world.

An additional danger to those who 'mainline' or 'shoot' methamphetamine is the possibility of infection and hepatitis from the use of non-sterile injection techniques.

Chronic or long-term use can lead to an intoxication characterized by similar symptoms as described for acute overdosage, but in addition, toxic psychoses and other abnormal mental states may occur.

It has been shown experimentally that physical effects of this stimulant are observed in organs of chronically treated animals. Autopsies on humans who have died from overdoses have shown similar effects.

It has been generally stated that although physical dependence does not develop to methampnetamine, mild to severe psychological dependence can occur. In addition, tolerance does occur, especially to the central nervous system effects. Thus abusers increase their daily doses to several hundred times the medicinal dose in order to achieve the desired central effects.

Methamphetamine for medical purposes is available on prescription only. It is available commercially under a variety of trade names. However, it is also manufactured in clandestine laboratories and is available in illicit channels as the crystalline powder, tablets, and a variety of liquid forms.

FACT SHEET 11

Controlled Drugs

The drugs subject to the provisions of the Drug Abuse Control Amendments to the Federal Food, Drug, and Cosmetic Act are known as depressant, stimulant and hallucinogenic drugs.

"Depressant or stimulant drug" is defined under the Federal Food, Drug, and Cosmetic Act as:

"(1) any drug which contains any quantity of

(a) barbituric acid or any of the salts of barbituric acid; or
(b) any derivative of barbituric acid which has been designated as habit forming;

(2) any drug which contains any quantity of

(a) amphetamine or any of its optical isomers;
(b) any salt of amphetamine or any salt of an optical isomer of amphetamine; or
(c) any substance which by regulation has been designated as habit forming because of its stimulant effect on the central nervous system; or

(3) lysergic acid diethylamide and any other drug which contains any quantity of a substance which by regulation has been designated as having a potential for abuse because of its depressant or stimulant effect on the central nervous system or its hallucinogenic effect..."

The barbiturates and amphetamines listed in items (1) and (2) were controlled on February 1, 1966.

Additional drugs have been controlled under the Amendments because they have a potential for abuse because of their depressant, stimulant, or hallucinogenic

effect. The drugs and dates of control:

DEPRESSANTS

Chloral betaine (Beta-Chlor)	11/19/66
Chloral hydrate (Chloral)	05/18/66
Chlorhexadol (Lora)	11/19/66
Ethchlorvynol (Placidyl)	05/18/66
Ethinamate (Valmid)	05/18/66
Glutethimide (Doriden)	05/18/66
Lysergic acid	09/11/66
Lysergic acid amide	09/11/66
Methyprylon (Noludar)	05/18/66
Paraldehyde	05/18/66
Petrichloral (Periclor)	11/19/66
Sulfondiethylmethane (Tetronal)	11/19/66
Sulfonethylmethane (Trional)	11/19/66
Sulfonmethane (Sulfonal)	11/19/66

STIMULANTS

d-, dl-Methamphetamine (d-, dl-Desoxyephedrine) and their salts	05/18/66
Phenmetrazine and its salts (Preludin)	09/21/66

HALLUCINOGENS (Available only to qualified clinical investigators)

DMT (Dimethyltryptamine)	05/18/66

FACT SHEET 11

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LSD; LSD-25 (d-Lysergic acid diethylamide)	05/18/66
Mescaline and its salts	05/18/66
Peyote (Provisions of the law do not apply to non-drug use in bona fide religious ceremonies of the Native American Church)	05/18/66
Psilocybin; psilocibin	05/18/66
Psilocyn; psilocin	05/18/66
DET (N-Diethyltryptamine) and its salts	11/22/67
Bufotenine and its salts	11/22/67
Ibogaine and its salts	11/22/67
DOM ("STP") 4-methyl-2, 5-dimethoxyamphetamine	04/02/68
THC - Tetrahydrocannabinols ("synthetic marihuana")	09/21/68

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 12

Rehabilitation

Until recently, the public has regarded addicts as incurable. Once "hooked," there was no road back. This idea arose from the fact that so many opiate addicts relapsed to drug use, even after long periods of hospitalization. Not long ago treatment for addiction consisted of little more than withdrawal from the drug and detoxification. When more ambitious programs were attempted, they had only limited success in terms of "cured" addicts, but each contributed to a growing body of knowledge about the addict, the drugs he uses and ways to effect his rehabilitation.

Today, there is general agreement that a successful treatment program should include, not only controlled detoxification, but also psychiatric evaluation and therapy, and continued medical supervision and counseling upon the addict's return to the community. The prime objective is total abstinence from drugs.

Initial detoxification of severly addicted persons is successfully accomplished only under medical supervision in a hospital setting. There, the patient's drug intake can be limited to physician-prescribed medications, including drugs administered for purposes of gradual, controlled withdrawal. In addition examinations can be conducted to discern any underlying mental and emotional disorders, so that psychiatric consultation and treatment can be arranged if necessary.

After detoxification, and after he has demonstrated the ability to cope with stress situations in a protected environment, the former addict can be returned to the community. This is the most critical period in the abuser's rehabilitation. He is still not emotionally equipped to face many situations and problems of the outside world without special help. For example, neither the neighborhood in which he was introduced to drugs nor his drug-taking friends have changed during his absence. Accordingly, the pressures to use drugs again will be enormous. To help him resist these pressures, trained personnel, working

with community organizations should be assigned to provide guidance and support during times of crisis. Initially, he might be required to maintain contact with a case-worker, keep psychiatric or other medical appointments and attend group therapy sessions. The degree and duration of such supervision would depend on the rate of rehabilitation. Conceivably several years might elapse before a former addict could be discharged as "cured".

Aside from helping "ex-addicts" rehabilitate themselves, community health organizations can provide an opportunity for initial contact between the active drug abuser and those who can help him. Addicts frequently experience a desire to "get off drugs," particularly when their supply of drugs or money is running low. This desire may be short lived, but at such times, addicts may present themselves at clinics and request help. Although addicts may be poorly motivated when they step in the door, properly trained counselors can sometimes persuade them to enter treatment programs.

Such programs must be flexible and subject to modification in accordance with the needs of the individual abuser. For example, a "spree user" who has developed neither physical dependence nor psychological dependence will rarely, if ever, require hospitalization. He may, however, need psychiatric evaluation to determine whether he has any underlying emotional or mental disorders requiring medical attention. In some cases, only counseling services will be indicated. The "hard-core" abuser, on the other hand, will seldom achieve complete abstinence from drugs unless he commits himself to the complete program. But even this degree of commitment may not prevent relapses. Return to drug use (recidivism) is not uncommon, even after relatively long "clean" periods.

As is true of alcohol abuse, it is generally recognized that relapse, in itself, is not a sign of complete failure or incurability. The ingrained habits and response patterns of years aren't changed in a few weeks or months. The way back to a useful independent place in society is long and hard for the addict. But as knowledge about drug addiction and its causes accumulates, the chances for rehabilitation will be increased.

FEDERAL EFFORTS: There are two Federal hospitals for drug addicts. One at Lexington, Kentucky, and Fort Worth, Texas.

Here, addicts can voluntarily turn themselves in for treatment or they can be committed by the courts. Since the 1930's mental health professionals have experimented with a number of treatment efforts at these centers. Despite extensive efforts in the institutional phase of treatment, the gains made by patients frequently could not be maintained following discharge because of the almost total absence of aftercare services and continued treatment in the community.

Because the rebuilding of a life requires many services and special programs, this chance for addicts has been very limited up to now. In 1966 Congress passed a new law, the Narcotic Addict Rehabilitation Act. This law provides, for the first time, that a complete range of rehabilitation services will be made available to addicts in their own communities.

The rehabilitation act provides that: 1.) certain addicts charged with specified Federal offenses may be committed for treatment instead of being prosecuted for their crimes by the court. They are assigned to the Surgeon General of the Public Health Service for examination, treatment and rehabilitation; 2.) Some addicts already convicted of certain crimes can be committed by the court to the Surgeon General for a treatment period of no more than 10 years or for the maximum period of sentence that could be imposed for his conviction; 3.) An addict not charged with an offense can be civilly committed to the Surgeon General for treatment upon his own application or the application of a relative or another "related individual" (any relative by blood or marriage, or the person with whom he resides) being presented to the local U.S. Attorney; 4.) Federal support can be given to states and communities for specialized training programs and for the construction, staffing and operation of new addiction treatment facilities on a joint Federal-State basis. Applicants can receive information and consultation from the National Institute of Mental Health staff located in the regional offices of the Department of Health, Education and Welfare or by writing to the Center for Studies of Narcotic and Drug Abuse, National Institute of Mental Health, Chevy Chase, Maryland 20015.

STATE & COMMUNITY EFFORTS: Many states and communities see the need for rehabilitation programs and are instituting them. In addition there are numerous privately endowed

rehabilitation centers throughout the country, where detoxification and treatment may be secured on a voluntary basis. These include private hospitals, "halfway houses," service organizations and religious groups. The names of these centers are normally available through the family doctor, a local church, or the local health center.

For additional information about rehabilitation of narcotic addicts, write to the Center for Studies of Narcotic and Drug Abuse, National Institute of Mental Health, Chevy Chase, Maryland 20015.

BNDD Bureau of Narcotics and Dangerous Drugs

FACT SHEET 18

Additional Information

Additional information on narcotics and dangerous drugs may be obtained from the following sources. You can write directly to obtain listings of material and any costs that may be involved.

American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D. C. 20037.

Alcoholism and Drug Addiction Research Foundation, 344 Bloor Street West, Toronto 4, Ontario, Canada.

American Medical Association, Council on Mental Health, 535 North Dearborn Street, Chicago, Illinois 60610.

American Social Health Assn., 1740 Broadway, New York, N. Y. 10019. Narcotics Advisory Committee, A.S.H.A.

Clinical Research, National Institute of Mental Health, Department of H.E.W., Lexington, Kentucky 40501.

Food and Drug Administration, 200 C Street, S.W., Washington, D. C. 20204 Attn: Consumers Inquiries.

International Narcotic Enforcement Officers Association, Inc., 84 Holland Avenue, Albany, N. Y. 12208.

National Association of Retail Druggists, One East Wacker Drive, Chicago, Illinois 60601.

National Coordinating Council on Drug Abuse Education and Information, P. O. Box 19400, Washington, D. C. 20036.

National Council on Crime and Delinquency, 44 East 23rd Street, New York, N. Y. 10017.

National Institute of Mental Health, Public Inquiries Branch, 5454 Wisconsin Avenue, N.W., Chevy Chase, Maryland 20203.

Pharmaceutical Manufacturers Association, Committee on Narcotics, 1155 15th Street, N. W., Washington, D. C. 20005.

Smith Kline & French Laboratories, 1500 Spring Garden Street, Philadelphia, Pa. 19101.

United Nations Commission on Narcotic Drugs, United Nations, New York, N. Y. 10017.

United States Public Health Service, 7915 Eastern Avenue, Silver Springs, Maryland 20910.

UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
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Phone 262-3130 (Area Code 608)

Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Basic Problems in the Social Psychology of Drug Use"

to be presented by

Alfred R. Lindesmith, Ph. D.
Department of Sociology
Indiana University
Bloomington, Indiana 47401

on

MARCH 11, 1969
(TUESDAY)

Annotated Bibiography

(prepared by Lindesmith)

1. Ausubel, David P., Drug Addiction: Physiological, Psychological and Sociological Aspects. New York: Random House, 1958. Presents a view of addiction which is opposed to mine.

2. Chein, I., Donald L. Gerard, Robert S. Lee, and Eva Rosenfeld, The Road to H: Narcotics, Delinquency and Social Policy. New York: Basic Books, 1964. Based on extensive studies in New York. Presents slums generate attitudes favorable to drug use.

3. Cloward, Richard A. and Lloyd E. Ohlin, Delinquency and Opportunity. New York: The Free Press, 1960. Primarily a study of delinquency in the anomic tradition. The authors devote a little attention to narcotics and propose the widely known "double failure" hypothesis.

4. Light, A. B., E. G. Torrance, W. G. Karr, Edith G. Fry and W. A. Wolff, Opium Addiction. This book is superb for its description of the withdrawal symptoms in addicts and for its detailed clinical observations on the behavior and physical condition of addicts.

5. Lindesmith, Alfred R., Addiction and Opiates. Chicago: Aldine Publishing Co., 1968. A complete revision and updating of the author's earlier work, Opiate Addiction. The theory mentioned in the lecture is fully elaborated.

6. Nichols, John R., 'How Opiates Change Behavior," Scientific American, 1965, 212 (2), pp. 80-8. A representative example of experimental work with lower animals which several writers feel essentially confirms the central points of Lindesmith's theory.

7. Terry, Charles E. and Mildred Pellens, The Opium Problem. New York: Committee on Drug Addiction and Bureau of Social Hygiene, 1928. The classic and comprehensive survey of the literature prior to about 1927.

8. Weeks, James R., "Experimental Narcotic Addiction," Scientific American, 1964, 210 (3), pp. 46-52. Another study in the same tradition as that by Nichols cited above. The author is a pharmacologist with the Upjohn Co. of Kalamazoo, Michigan.

9. Wilner, Daniel M. and Gene G. Kassebaum, Narcotics. New York: McGraw-Hill, 1965. A collection of articles on various aspects of the narcotic problem.

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Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Hallucinogens and Marihuana"

to be presented by

Joseph M. Benforado, M.D.
Assistant Clinical Professor of Medicine
School of Medicine
The University of Wisconsin
Madison, Wisconsin 53706

on

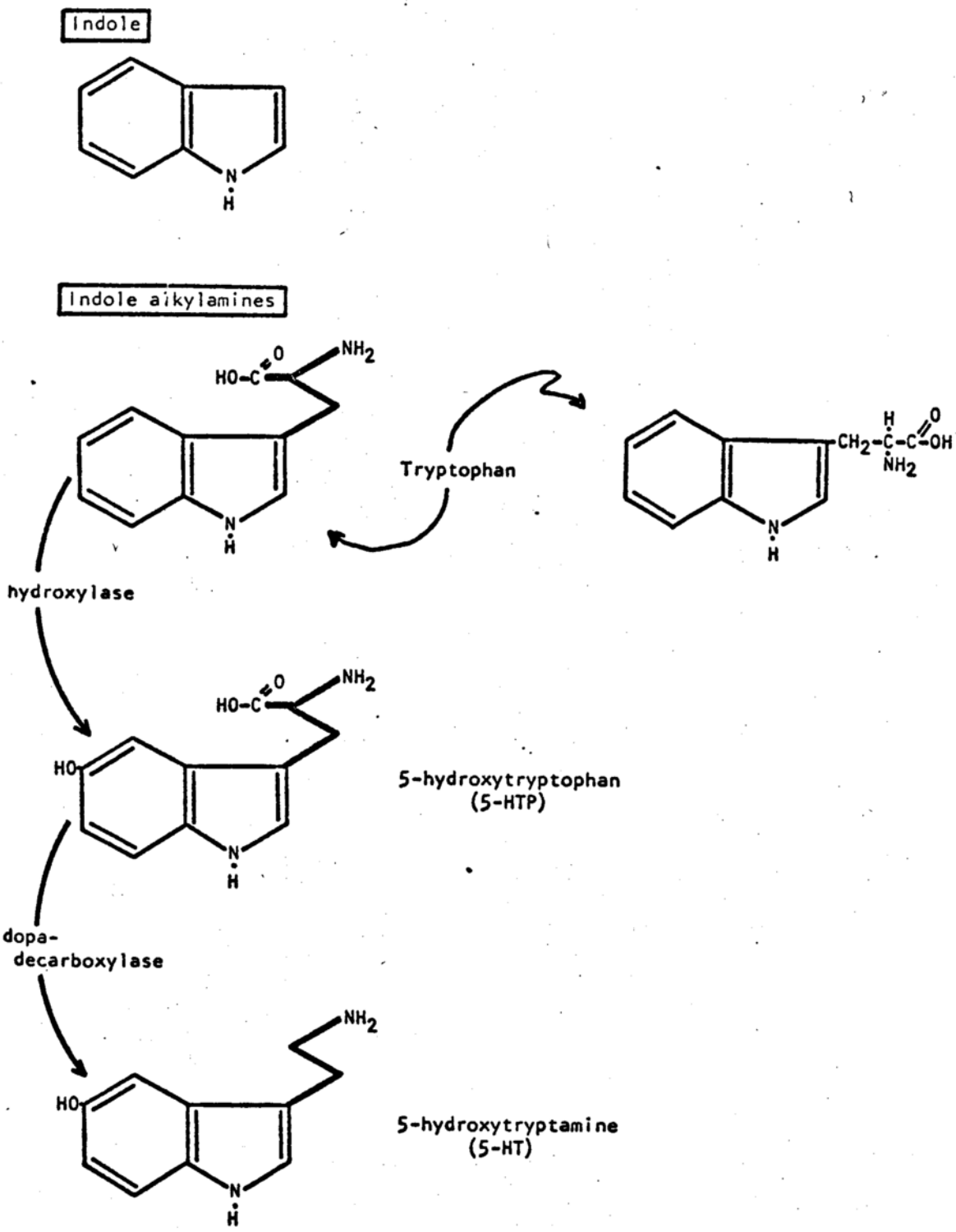
APRIL 3, 1969
(THURSDAY)

TABLE I

CHEMICAL CLASSES OF HALLUCINOGENIC DRUGS

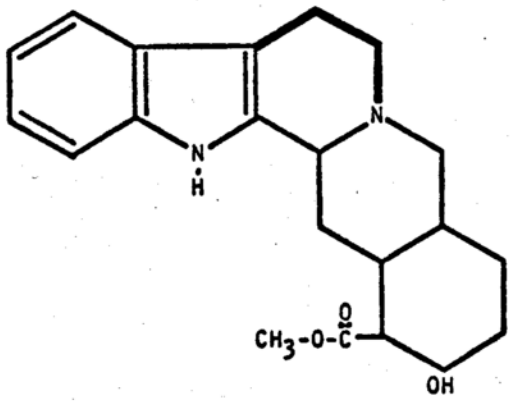
	Name	Source	Origin
Indole-containing Hallucinogens	(I) Yohimbine	plant source	natural
	(II) Dimethyl & Diethyl-tryptamine	chemical laboratory & plant source	synthetic & natural
	(III) Psilocin, Psilocybin	certain species of mushroom	natural & synthetic
	(IV) Bufotenine	Toad (Bufo marinus) Fly agaric mushroom (Amanita muscaria)	natural
	(V) Lysergic acid monoethylamide (LSM)	morning glory seeds (Rivea corymbosa)	natural & semi-synthetic
	(VI) Lysergic acid diethylamide (LSD)	Claviceps purpurea (Ergot)	semi-synthetic in that lysergic acid is chemically converted to the diethylamide
Non-indole-containing Hallucinoge.	phenylethylamines		
	(VII) Mescaline	Peyote cactus (mescal buttons)	natural & synthetic
	(VIII) STP	chemical laboratory	synthetic
	anticholinergic drugs		
	(IX) Atropine, Scopolamine	Atropa belladonna Datura stramonium	natural (but also related synthetics)
	other		
	(X) Tetrahydrocannabinol (THC)	Cannabis sativa (hemp)	natural & synthetic (isomers)

FIGURE 1

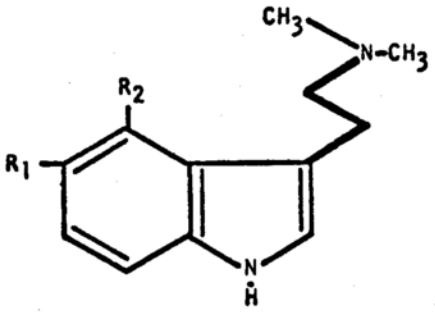


JMB-2

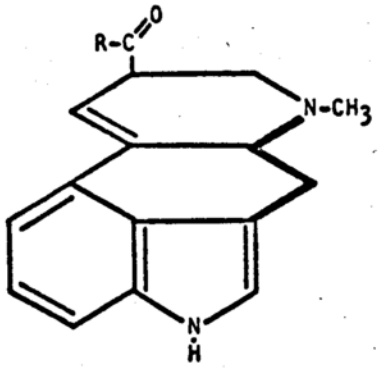
FIGURE 2



Yohimbine (I)



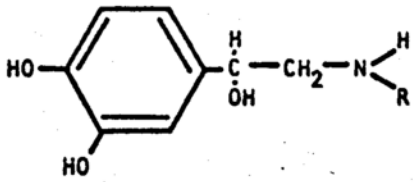
R_1	R_2	
H-	H-	= Dimethyltryptamine (II)
H-	HO-	= Psilocin (III)
HO-	H-	= Bufotenine (IV)



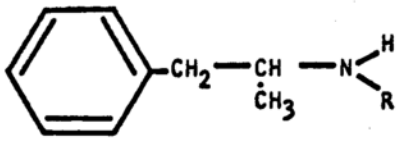
R	
HO-	= Lysergic acid
C_2H_5, H, N-	= LSM (V) (Lysergic acid monoethylamide)
C_2H_5, C_2H_5, N-	= LSD (VI) (Lysergic acid diethylamide)

FIGURE 3

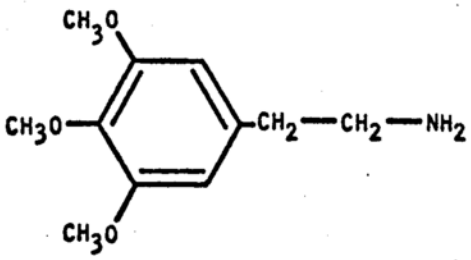
Phenylethylamines



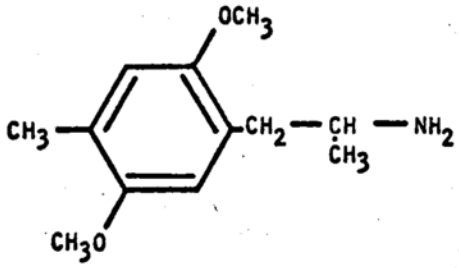
R	
H-	= Norepinephrine
CH_3-	= Epinephrine



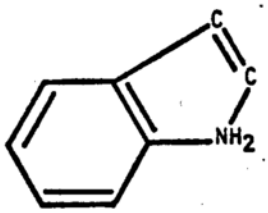
R	
H-	= Amphetamine
CH_3-	= Methamphetamine (Speed)



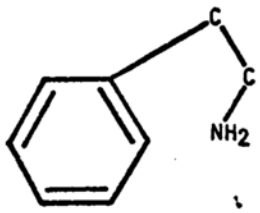
Mescaline (VII)



STP (VIII)
(2,5,dimethoxy-4-methylamphetamine)

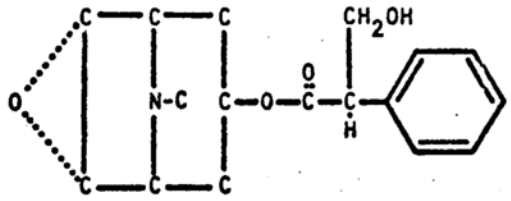


Indole



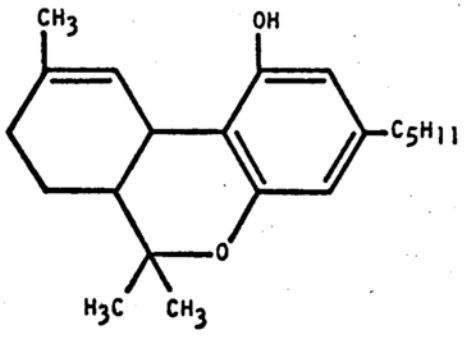
Phenylethylamine

Anticholinergic drugs



Atropine (IX)
Scopolamine
(dotted oxygen bridge)

Others



1-Δ^9-trans-tetrahydrocannabinol (X)

FIGURE 5

Nervous System
(Communications Net)

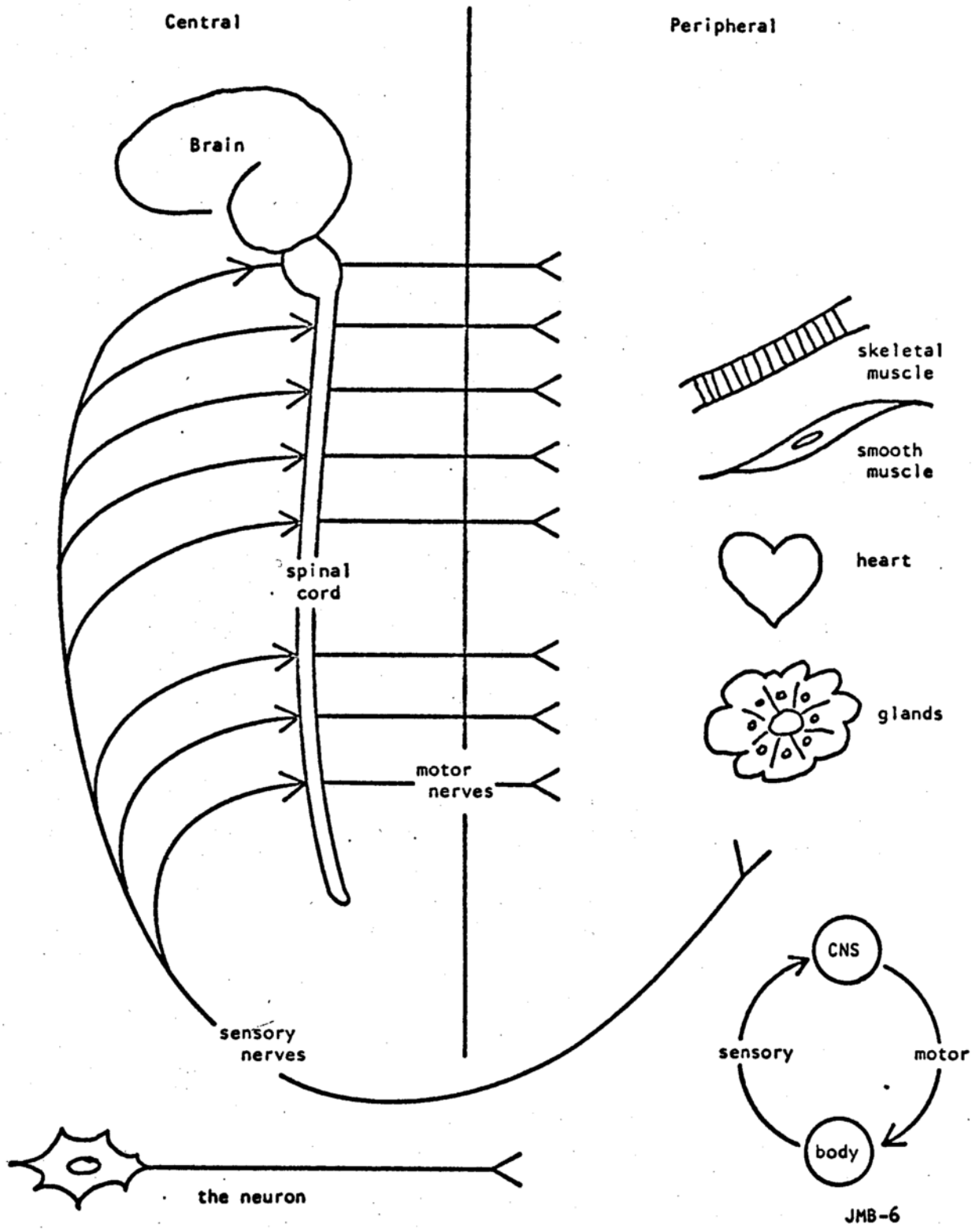
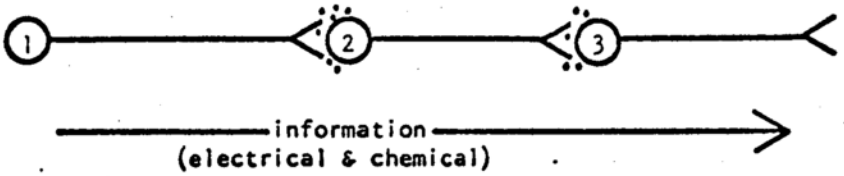


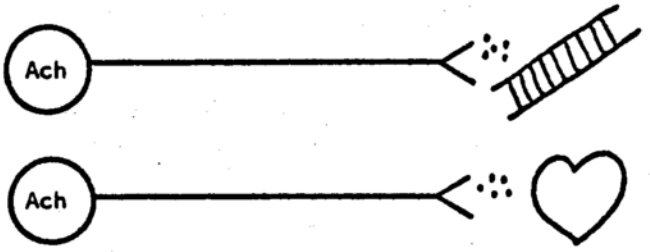
FIGURE 6

Peripheral Nervous System

I

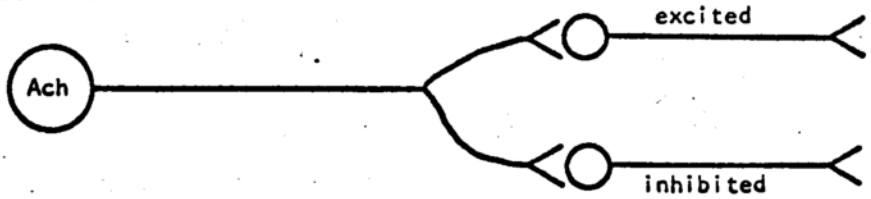


II



(also norepinephrine)

III mollusc



(a) stimulate neuron electrically

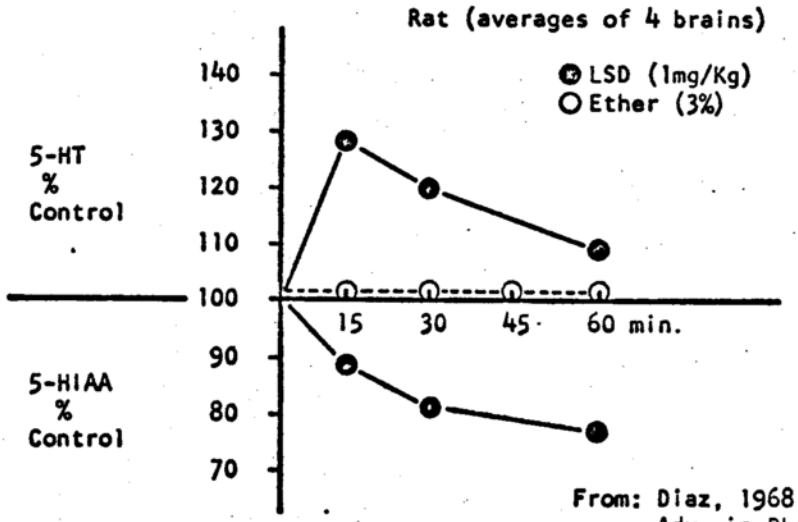
(b) inject Ach locally

Central Nervous System

neurohumors ?

- acetylcholine
- norepinephrine
- 5-hydroxytryptamine
- gamma-aminobutyric acid
- etc.

FIGURE 7



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UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
Madison, Wisconsin 53706
Phone 262-3130 (Area Code 608)

Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Drug Dependence: Alcohol - Sedative Type"

to be presented by

Carl F. Essig, M.D.
National Institute of Mental Health
Addiction Research Center
Lexington, Kentucky 40507

on

APRIL 8, 1969
(TUESDAY)

Slide I

SEDATIVE, HYPNOTIC DRUGS THAT CAN CAUSE ALCOHOL-BARBITURATE TYPE INTOXICATION OR PHYSICAL DEPENDENCE

1. Ethyl Alcohol
2. Paraldehyde
3. Chloral Hydrate
4. Barbiturates
5. Meprobamate (Miltown, Equanil)
6. Glutethimide (Doriden)
7. Methyprylon (Noludar)
8. Ethchlorvynol (Placidyl)
9. Ethinamate (Valmid)
10. Chlordiazepoxide (Librium)
11. Diazepam (Valium)

Slide II

AN INDICATION OF RELATIONSHIP OF DOSAGE OF SECOBARBITAL OR PHENOBARBITAL TO INTENSITY OF PHYSICAL DEPENDENCE

Total Patients	Daily Dose of Barbiturate	Days of Intoxication in Hospital	Patients Having		
			Convulsions	Delerium	Minor Symptoms
18	0.9-2.2 Gm. Secobarbital or Pentobarbital	32-144	14 (77%)	12	18
5	0.8 Gm. Secobarbital	42-57	1 (20%)	0	5
18	0.6 Gm. Secobarbital	35-57	2.(11%)	0	9
18	0.4 Gm. Secobarbital or Pentobarbital	90	0 (0%)	0	1
2	0.2 Gm. Secobarbital or Pentobarbital	365	0 (0%)	0	0

Slide IV

DRUGS HAVING BARBITURATE-LIKE EFFECTS
(Doses Reported to Have Caused Severe Degree of Physical Dependence)

Drug	Daily Dose* Prior to Manifesting Major Withdrawal Reaction	Daily Dose Associated with Death During Withdrawal
Meprobamate (Miltown, Equanil)	2.4 Gm./day	10.0 Gm./day
Glutethimide (Doriden)	2.5 Gm./day	
Ethchlorvynol (Placidyl)	1.5-2.0 Gm./day	
Ethinamate (Valmid)	13.0 Gm./day ▲?	
Methyprylon (Noludar)	2.4 Gm./day	7.5-12.0 Gm./day
Chlordiazepoxide (Librium)	0.3 Gm./day	
Diazepam (Valium)	0.1-0.15Gm./day ●?	

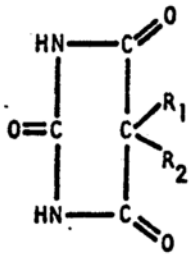
*Estimates from clinical case reports. ▲ Dose may be too high. ● One case reported.

CFE-1

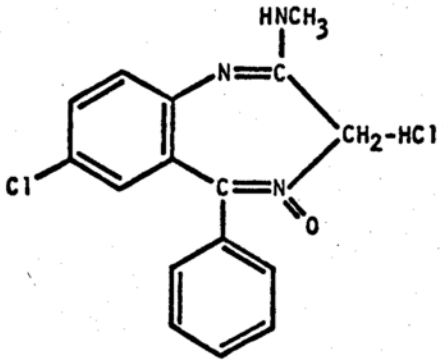
Slide III

STRUCTURAL FORMULAE OF THE NEWER NON-BARBITURATE, SEDATIVE, HYPNOTIC DRUGS THAT CAN CAUSE ALCOHOL-BARBITURATE TYPE DEPENDENCE

BARBITURATE NUCLEUS

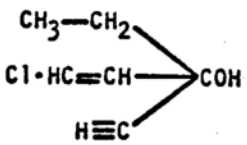


BENZODIAZEPINE TYPE

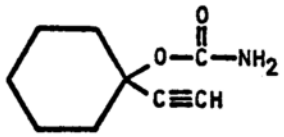


CHLORDIAZEPOXIDE
(Librium)

TERTIARY CARBINOLS

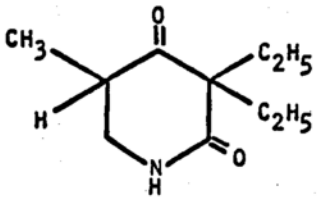


ETHCHLORVYNOL
(Placidyl)

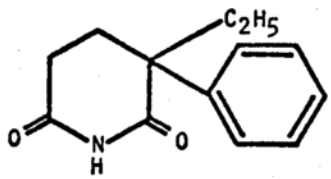


ETHINAMATE
(Valmid)

PIPERIDINE DIONES

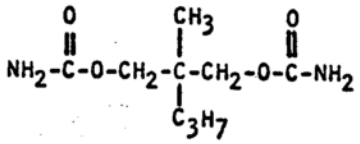


METHYPRYLON
(Noludar)



GLUTETHIMIDE
(Doriden)

PROPANEDIOL



MEPROBAMATE
(Miltown)

UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
Madison, Wisconsin 53706
Phone 262-3130 (Area Code 608)

Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Chemistry, Pharmacology and Adverse Effects of Stimulants"

to be presented by

Robert N. Morris, Ph.D.
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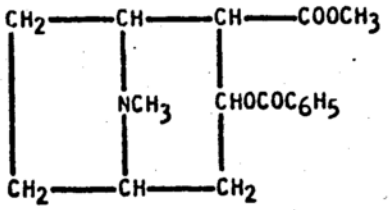
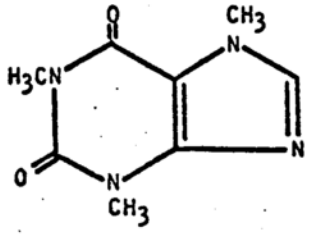
on

APRIL 17, 1969
(THURSDAY)

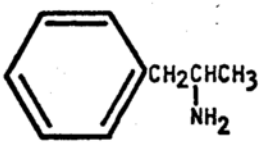
VARIOUS CENTRAL NERVOUS SYSTEM STIMULANTS



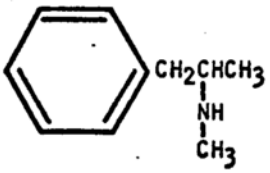
COCAINE
(Coke, Snow)



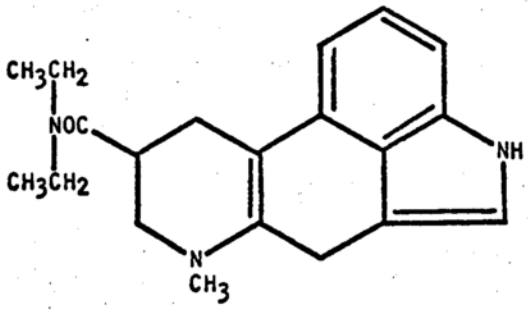
CAFFEINE



AMPHETAMINE
(Blue Heavens, Bennies)

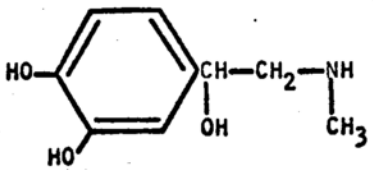


METHAMPHETAMINE
(Speed)

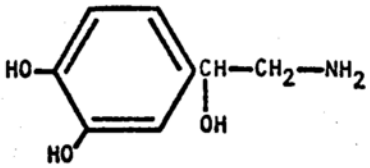


LYSERGIC ACID DIETHYLAMIDE
(LSD, Acid)

NATURALLY OCCURRING ADRENERGIC NEURO-MEDIATORS



EPINEPHRINE
(Adrenaline)



NOREPINEPHRINE

Legitimate Medical Uses for Amphetamine and Methamphetamine

1. Control of narcolepsy.
2. Control of hyperkinetic disorders in children (i.e. to calm the overtly overactive child). This paradoxical tranquillizing effect of these drugs on children is well known, therapeutically utilized, but poorly understood.
3. Relief of fatigue.
4. Treatment of mild depression.
5. Resuscitative measure in reversal of overdosage of central nervous system depressants such as barbiturates or alcohol.
6. Suppression of appetite as part of the total therapy of obesity.
7. Induction of insomnia in persons engaged in long term mental or physical tasks.

Slang Names of Amphetamine Preparations

Speed	Hearts
Pep Pills	Footballs
Co - pilots	Bennies

An Illustration of Combined Amphetamine and Barbiturate Tolerance

Tolerance: Phenomenon characterized by the necessity to increase the dose of a drug with time, in order to obtain the effect observed with the original dose.

Dosages: The usual dose of amphetamines for most legitimate therapeutic indications is 10 to 15 mg./day. The usual daily dose of barbiturates prescribed for sedation varies widely depending on the particular barbiturate prescribed. However, the range of 50 to 200 mg./day pretty well includes the daily doses of the commonly used barbiturate drugs.

Example: The case history of a confessed abuser of these drugs includes the patient's disclosure of a single day's intake of barbiturates and amphetamines.

In one day she took:

50 Dexamyl®
10 Dexedrine tablets
3 Amytal tablets
24 Seconal tablets

By calculation this amounts to:

900 mg. of amphetamines
6200 mg. of barbiturates

Therefore, this woman required about 60 times the therapeutic dose of amphetamines in order to achieve the sought-after thrill. She also required 30 to 60 times the therapeutic dose of barbiturates.

UNIVERSITY EXTENSION

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Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Sniffing of Solvents Among Juveniles"

to be presented by

Jacob Sokol, M.D.
Assistant Clinical Professor of Medicine
School of Medicine
University of California at Los Angeles

on

APRIL 22, 1969
(TUESDAY)

Inhalation of Solvents Among Juveniles*

by

Jacob Sokol, M.D. **

Juveniles rebel against adults, but are conformists among themselves. Some conformities come and go as harmless fads, however when the motivation of imitative behavior is to acquire status, anti-social acts or acts accompanied by personal harm may be performed. Among the latter are the practices of inhalation of lighter fluids, gasoline, and freon-aerosol mixtures and especially sniffing of airplane glue. Because glue sniffing is the more prevalant practice, the majority of my lecture will focus on discussions of glue sniffers among juveniles.

Glue Sniffing

The Los Angeles County Probation Department has been faced with the problem of glue sniffing for the past several years. A few years ago, many of us were unaware of the term "glue sniffing"; but this practice has become so widespread among delinquency-prone teen-agers that it is well known, particularly to law enforcement personnel. In fact, it received major consideration at the March of 1963 and March of 1965 sessions of the State Legislature when an Assembly Bill was introduced by Senator Thomas Carrell of San Fernando. The Bill proposed to consider glue containing certain toxic chemicals as poison and its sale to persons under 21 years of age be prohibited. This Bill, amended to refer to persons under 18 years of age, became law in July of 1965.

After purchasing a tube of glue, the teen-ager squeezes it out into a piece of cloth, or rag, or even an old sock. Ordinarily the cloth is brought to the open mouth and the fumes deeply inhaled. Occasionally a glue sniffer will inhale through the nostrils. Instead of a cloth, a plastic bag may be used.

Toluene is the common solvent found in plastic cements. Toluene is a methyl benzene which acts as a depressant on the central nervous system. Other solvents are xylene, acetone, methyl isobutyl ketone, other ketones, isopropyl alcohol, ethyl acetate, Methyl Cellosolve Acetate, and trichloroethylene.

We at Juvenile Hall have investigated the cases of over 1,000 children, who have been admitted to the Hall by the probation officers because of glue sniffing.

Every child admitted to Juvenile Hall as a glue sniffer is given a through physical examination by a staff of well-trained physicians and later referred to a special clinic where further examinations including laboratory tests are made.

Our findings reveal, among other things, that anemia has a particular manifestation among glue sniffers. There are changes in form, shape, and color of the red cells, increase in the number of white cells, and decrease in the white

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*Presented by Dr. Sokol as one lecture of the continuing education Tele-Lecture series, Problems in Drug Abuse, sponsored by the Health Sciences Unit, University Extension, The University of Wisconsin, April 22, 1969.

**Dr. Sokol is Assistant Clinical Professor of Medicine at Loma Linda Medical School, University of Southern California, and former Chief Physician, Juvenile Hall, Los Angeles County Probation Department.

blood count. They reveal basophilic stipplings and target cells which indicate a toxic condition. The urinalysis reveals pus, albumin, casts, bacteria, and blood, and examination of several glue sniffing children revealed evidence of liver and kidney damage.

Preliminary observations on the effects of chronic, recurrent sniffing of organic solvents were also made in Sweden on 32 boys between the ages of 12 and 15 years, of whom at least half had practiced glue sniffing frequently. A number of bone marrow aspirations indicate such abnormalities as inhibition of maturation of blood cells. Electroencephalographic changes resulting from acute inhalations of these solvents appear to be related to somnolence, a common side effect of inhalation.

The juveniles will experience some of the following after sniffing glue: Buzzing sensation, dizziness, headaches, euphoria, somnolence at times, loss of weight, diplopia, nystagmus, dullness with poor concentration, forgetfulness, tremors at times simulating a condition of alcoholic intoxication, spasmodic condition of muscles, especially the neck muscles and the muscles of the lower extremities, dilated pupils, decreased reflexes, numbness of the extremities, sneezing, coughing, chest pain.

Loss of weight is not uncommon, in one case, 30 pounds were lost during indulgence of the glue sniffing habit.

While under the influence of glue, and especially in the euphoric state, these children are dangerous to society and themselves. In June, 1964, a 16-year-old boy assaulted his 9-year-old brother, held glue rags to the faces of his infant brother and toddler niece, and at one time, held lighted matches over the mouth of a two-month-old brother. In October, a year ago, a 15-year-old boy from Azusa went with four friends and raided a San Dimas neighborhood. The youngsters also fired 15 shots into an inhabited building. In Imperial Beach near San Diego, a young 16-year-old boy tried to beat his parents and young brother with a heavy steel knife-sharpening tool on July 31, 1963. On January 27, 1965, a child was admitted to Juvenile Hall who, according to the police report, climbed on roofs while under the influence of glue. We have evidence that boys, while under the influence of glue will steal vehicles and drive recklessly ending in car accidents and injury to themselves. On December 23, 1964, a 13-year-old boy attacked a paper boy who was making collections on his bike. The 13-year-old stated he wanted the paper boy's money and when refused he struck the paper boy in the face several times with his fist. The paper boy ran from the scene to a service station while the 13-year-old got on the paper boy's bike and rode away. He was apprehended by the service station attendant who then called police. The boy admitted using glue prior to the attack.

Many of the glue sniffers, while under the influence of glue, have hallucinations. One boy while detained at Juvenile Hall heard barking dogs late at night and developed a fear that "the Devil is coming in the window to take me away." The boy was screaming "Help me!" when the nurse and deputy probation officer arrived. Previously, this boy and four others, under the influence of glue, were sitting in a theater in Oxnard, Ventura County. Suddenly they grabbed a young girl sitting in front of them and tried to rape her. The girl screamed and they ran from the movie house.

Several deaths have occurred in the United States as a result of glue sniffing. A recent autopsy report from the Los Angeles County Coroner's office states that a 41-year-old professional baker died from glue sniffing. He was found to have marked congestion with extensive intra-alveolar hemorrhage of the lungs caused by

direct irritation of toluene. This chemical has been extracted from the tissues and it was found that it also caused congestion of the tracheobronchial tree. In New York City, two young boys fell to their deaths from tenement roofs while in the euphoric state produced by sniffing glue. In another instance, a young man from Freeport, Kansas, met his death while indulging himself in glue. Still another boy from Fall River, Massachusetts, met a similar fatality; and in Los Angeles County, a teen-age boy was beaten to death while attending a teen-age glue sniffing party. In South Carolina, 13-and 14-year-old boys sniffed glue from a plastic bag. The younger boy told police his friend "kinda went crazy and acted like he was a bird. I left, and when I got back my friend had shot himself in the head and was dead."

One high school student was found dead in Richmond County after sniffing glue. In Washington, a student lost his life sniffing glue. In Philadelphia a youth was found dead after sniffing glue. In Oregon one death is recorded. One fatality case occurred in Milwaukee. One 24-year-old male, after drinking one can of beer and sniffing glue, developed symptoms of a'hangover" with cold chills and vomiting. The young man continued vomiting over the next two days but also had dyspnea, pain in his chest and arms, and thirst for cold water. He "lapsed into a coma" on the third day. He was dead on arrival at the hospital an hour and ten minutes later. Another report involved a 17-year-old male who became very ill after sniffing glue and drinking one quart of beer. He was taken to the hospital where he expired within 24 hours. The autopsy report from the Sacramento Clinical Laboratory stated that the final diagnosis was "compatible with toluene intoxication from glue sniffing. Intra-alveolar hemorrhage, lungs, minimal. Thickening basement membrane, bronchial mucosa."

One boy in his early teens was so elated by glue sniffing that he assumed a fighting stance before an oncoming freight train - narrowly escaping death. This incident occurred in Oakland.

There are several cases of addiction to glue that have been called to my attention. Recently in Southern California a young boy from San Bernardino was comitted to a state institution after being adjudged an addice by a court judge. A 15-year-old boy requested placement in an effort to overcome his desire to sniff glue, and we had, in Juvenile Hall, an 18-year-old glue sniffer, a Junior College student, who requested help from the juvenile authorities because of his desire to sniff glue. In an interview with this young man, he admitted to me that, if released from Juvenile Hall, he would do anything in the world to get money to buy glue and sniff it.

There is a case of addiction to glue mentioned in the December 1, 1962, issue of the British Medical Journal entitled "Addiction to Glue Sniffing," by Julius Merry, M.D., and Nicholas Zachariadis, M.D. I personally know of one severely addicted case in Long Beach in which the addict is now under the supervision of a private physician and top psychiatrist.

A 17-year-old San Jose boy was dragged home unconscious in November, 1964 after attending a glue sniffing party on a baseball diamond behind a high school. The boy told officials he and friends had been sniffing glue behind the school regularly for quite some time.

In July, 1965, a youngster lost his life due to sniffing glue. The autopsy, performed by the Los Angeles County Coroner's office, stated, in effect, that the boy died due to acute toluene intoxication from glue sniffing.

The New England Journal of Medicine dated September 23, 1965, published an article by Dr. Darleen Powars of the Pediatrics Department of the Los Angeles County General Hospital. In the article, Dr. Powars described a case of aplastic anemia secondary to glue sniffing. The boy died.

A girl recently detained at Juvenile Hall informed me that she attends junior 205
high school and the girls sniff glue in the girls' rest rooms and several times have been caught by teachers. She had also participated in a party of boys and girls who were drinking beer and sniffing glue.

A 15-year-old male was referred to the Los Angeles County Probation Department's Psychiatric Clinic for study. He once became comatose and required hospitalization and treatment after sniffing glue. According to the psychiatrist, his glue sniffing habit had become well entrenched and severe.

The sniffing of glue seems to be practiced mainly by delinquent boys. However, we have recently had several cases involving girls.

From my conversations with glue sniffers I have learned that in a number of schools, elementary and high schools, the students are sniffing glue in the rest rooms. This practice is known to the teachers and principals, but somehow the school principals are not very anxious to bring it out in the open. Glue sniffers have also described to me how a number of children, boys and girls, meet in unoccupied houses where they sniff together and later have sexual relations - both homosexual and heterosexual. This practice has not, however, come to the attention of the law enforcement agencies - yet.

We have received a number of telephone calls from Public Health nurses associated with the school system asking our advice as to how to approach the glue sniffing practice of children in the schools.

It is almost impossible to enumerate all of the underlying symptoms of emotional problems in children and youth that may lead to glue sniffing. Some of the early symptoms to look for might be day-dreaming problems of life, guilts and anxieties and worry about school and friends or marks and grades, bashfulness, self-consciousness, and other manifestations of inadequacies or inferiority. Glue sniffing may also be brought on by frustrations like inability to meet the goals set for one by parents, rejection by the parents who may not meet the emotional needs of the child, lack of love and understanding of the child and quarreling between parents.

Glue sniffers usually are boys who are of small stature and not physically or athletically developed who resort to glue sniffing because they frequently suffer inferiority complexes and the defenses they choose give them status which answers temporarily an ego need.

There is also that element where the father is out of the home and the mother is working all day to maintain the family needs. Thus the lack of close relationship between mother and child and the absence of supervision creates in the child a craving for love and affection.

It is important to note that the cultural element bears important consideration. Our study disclosed that glue sniffing among the Negro population as compared to the Caucasian and Spanish-speaking population is very small.

Aside from the medical and psychiatric treatment which might be indicated here, the following suggestions have been offered from a prophylactic view with reference to the glue sniffing problem: We should arouse public opinion as to the dangers of this practice. We should arouse interest or call the problem to the attention of state, county, and local authorities. We should contact and interest members of the Board of Education, principals, teachers, and counselors. We should inform manufacturing companies of the danger. We should contact the youth through medical men and public officials of the Probation Department, explaining to them the dangers involved in the

practice. We should conduct special studies and do research into the problem and attempt to obtain financial grants with which to conduct future studies. We should request that the Hobby Industry of America do its upmost to remove the toluene from the glue content. It is only through the concerted efforts of the entire community that we can hope to lick this physical, social, and moral malady which has plagued our youth and threatened our future leaders.

Freon Sniffing

An apparent new fad of collecting in balloons or bags, fluorinated, chlorinated hydrocarbons from aerosol glass chillers and then inhaling the concentrated vapors, has become popular. A number of such products are marketed for the purpose of frosting glasses, and all of the products have as the chilling ingredients one of the freons: Freon 11 (fluorotrichloromethane) or Freon 12 (dichlorodifluoromethane). They also contain some constituents of PAM (2 - pyridine aldoxine methiodide) which is $C_7H_9IN_2$. Possible effects of this ingredient are freezing and frost bite when brought into contact with the skin. Decomposition into highly irritant and toxic gasses such as chlorine, fluorine, hydrogen fluoride and chloride and even phosgene when heated. It can also cause a narcotizing effect when inhaled in high concentrations. Other possible reactions to inhalation are thought to be freezing damage to the lungs, laryngeal spasms, or anoxia owing to the displacement of air. There have occurred a number of deaths throughout the United States which were the result of the inhalation of Freon. Specifically in California, the following deaths have occurred: In March of 1967, a Pasadena youth, S.D., died due to the inhalation of instant freeze vapors. Lieutenant McGowan, Police Watch Commander, said that the Juvenile Division had received information about five months previous to the death that teenagers were inhaling aerosol fumes for minute real sensation. In April of 1968, a 16-year-old male, W.S., lost his life due the the inhalation of a Freon aerosol mixture from a plastic bag. In March of 1968, another youth 17 years old, J.S., died from the inhalation of Freon aerosol mixture concentrated in a bread wrapper. In July of 1968, an 11-year-old male, W.V., of Salinas, lost his life because of the inhalation of Freon gas. Autopsies were performed by the offices of the Chief Medical Examiner Coroners of Los Angeles County in Salinas. The anatomical, pathological findings for the above cases were equilivant and I quote verbatim: "Asphyxia due to hyperemia of sclera, petecial hemorrhage of ventricular epicardium, pulmonary congestion, hyperemia of epiglottis, petecial hemorrhage left cutaneum, aspiration of gastric content in larynx, gaseous dilation of stomach." In the case of W.V. of Salinas, the gross diagnosis was as follows: Cyanosis of lips and nail beds; lungs - marked acute congestion; acute congestion of viscera. The microscopic diagnosis was as follows: lungs - marked congestion and desquamation of bronchial epithelium probably due to severe anoxia or asphyxia; normal acute congestion of viscera; brain - moderate cerebral edema probably due to anoxia.

Lighter Fluid Sniffing

Deaths have also been caused by the inhalation of butane lighter fluids. This problem has been recognized only in recent years. The chief effect of the inhalation of lighter fluid fumes is euphoria, simulating intoxication by alcohol. There is a rapid induction of dizziness, confusion, muscular incoordination, and a pleasurable oblivion from reality. Other occasional symptoms are headaches, irritability, nausea, vomiting, anorexia, and irritation of the conjunctiva and mucus membranes of the nose, throat and bronchial tree, with the end results of pneumonitis. Sustained use during any one episode can rapidly lead to unconsciousness. Chemically, lighter fluid varies from brand to brand but essentially it contains a mixture of volatile and highly inflammable aliphatic hydrocarbons, primarily naphtha. Under the influence of lighter fluid sniffing, youngsters may engage in both homosexual and heterosexual behavior. The San Antonio police of Texas, in 1964, were called in to investigate an

abandoned building. In the building they apprehended six children who admitted to a year long series of sniffing accompanied by sex parties. There is the possibility of addiction of lighter fluid. I have observed several juveniles at the Hall who revealed withdrawal symptoms in the form of restlessness, anxiety, irritability, excitability, crying spells, and tremors of the hands. In October of 1967, a 15-year-old male, D.C., of Oxnard, California, died from acute pulmonary edema and anoxia due to inhalation of butane gasoline. The autopsy revealed the following findings in the respiratory system: Both lungs were superepetant and heavy in character, lying free in the pleural spaces. The pleural surfaces were marked by scattered subpleural, petechial hemorrhages. Both lungs appeared to be considerably edematous and congested, as visualized and pulpated.

Gasoline Sniffing

Another popular fad today is the sniffing of gasoline. Most of the recorded reports and incidents come from police or juvenile authorities and generally are in association with some other type of disorderly conduct. Inhalation and ingestion may result in central nervous system depression. Aspiration into the lungs will cause severe chemical pneumonitis. The inhalation of gasoline apparently produces hallucinations, erotic feelings, feeling of drifting in space or pleasure to the point of genius. Brief exposures to high concentrations have caused fatal pulmonary edema, acute exudative tracheal bronchitis, passive congestion of liver and spleen, and early acute hemorrhagic pancreatitis. The major components of gasoline are volatile hydrocarbons with boiling points from 60 degrees to 200 degrees Centigrade. These include straight chain and branch chain paraffins, naphthas and aromatic hydrocarbons such as n-heptane, iso-octane, methyl cyclohexane, benzene and toluene.

Studies reveal that addiction to gasoline sniffing does occur and that this habit has been the cause of a number of deaths. On July 18, 1966, a 23-year-old male, R.F., was found dead in an automobile beside a can containing gasoline. The final diagnosis, according to the Office of the Los Angeles Coronor, was asphyxia due to the inhalation of gasoline. The following is the abbreviated list of the anatomical summary: All organs smelled strongly of gasoline; respiratory system - acute laryngeal tracheal bronchitis, pulmonary edema; and subarachnoid hemorrhage, bilateral minimal.

On October 2, 1967, a 16-year-old male, M.G., of Hollister, California, was found dead after having sniffed gasoline. Petroleum hydrocarbons were found present in the tissue of the victim as follows: A trace of hydrocarbons in the stomach; a small amount in the blood, liver and lungs; and a moderate amount in the kidneys. The additional autopsy findings for victim number 2 (M.G) were very similar to the findings listed for victim number 1 (R.F.). M.G.'s cause of death was asphyxia due to the aspiration of gastric contents which was due to the inhalation of hydrocarbon fumes of gasoline.

In conclusion, may I say that thousands of adolescent and teenage youngsters in many cities throughout the United States and other countries are deliberately inhaling vapors of a wide variety of volatile organic solvents in order to induce repeated states of inebriation. Although the practice itself is not new, its occurrence in epidemic proportions in many areas and the passage of legislation prohibiting the act in many cities and states in the United States has brought the problem into nationwide prominence.

In conclusion, I would like to say that the problem of the inhalation of solvents is primarily found with teenage boys and girls. A variety of organic solvents are inhaled by the juveniles for the intentional induction of intoxication. While different in some of their effects and in toxic potential, they all share a narcotic effect upon the central nervous system.

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Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Treatment and Rehabilitation of Abusers of Hallucinogens and Amphetamines"

to be presented by

Charles Clay Dahlberg, M.D.
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The William Alanson White Institute
of Psychiatry, Psychoanalysis and Psychology
20 West 74th Street
New York, New York 10023

on

MAY 1, 1969
(THURSDAY)

Depression: Cause and Effect of Drug Abuse in College Students

by

Charles Clay Dahlberg, M.D.
The William Alanson White Institute, New York City

The material for the thesis I am presenting is based upon (1) my clinical observations of some two dozen patients I have seen in the last 3 years who were active users of large amounts of non-narcotic drugs, (2) my own investigations in which I gave LSD and dextro-amphetamine separately to patients in psychotherapy[1], (3) discussions with parents of drug users, (4) informal conversations with students on campuses where I gave lectures on drug abuse, (5) formal and informal discussions with college deans and teachers who were concerned with student drug use, and (6) numerous discussions with other psychotherapists who have also worked in this field.[2,3] This experience has led me to the conclusion that psychic depression is a very common, if not universal factor in leading to drug usage, and that LSD and the drugs of the amphetamine group are particularly likely to increase pre-existing depression or bring a latent depression out into the open. No claim is made that depression is the only issue in drug abuse, and I am by no means ruling out other psychological and social forces.

Before going into the main body of my paper, I wish to outline an hypothesis about the phenomenon of depression which is largely taken from Arieti[4] but can be traced to Bowlby[5], Fenichel[6], and others. My observations on LSD as a cause of depression confirm Arieti's hypothesis. Depression comes from a loss. It can be due to the loss of a loved object through death or departure, the loss of status, of a self-concept, of an ideal, or of a symbol, such as money. The loss must be of something that is considered an important ingredient of one's life. One insufficiently appreciated deprivation in the literature on depression is the loss of an anticipated gain. This brings on disappointment, which is an invariable factor in the onset of depression. Let us say that a student anticipates a very good grade; a business man, a big profit; a lover, a suitable response from his loved one. When the opposite occurs, he experiences a loss and sense of disappointment as great as if it were the loss of something he actually had.

The loss is followed by a period of sadness in which thoughts of the lost object continually intrude into awareness. Freud called this mourning. After a passage of time and working through by thinking of the lost object, the pain diminishes. Readjustments take place, and compensations are found to make up for the loss. Under such circumstances, the depression (or mourning) is relieved, and the individual returns to his usual way of life with certain changes. This is a normal process.

This paper is a revised version of remarks made by the author at a symposium "Drugs on the Campus" on November 25, 1967 at the annual meeting of Associated Student Governments, San Francisco, California. Supported in part by Grant No. MH-11670 from the National Institute of Mental Health to the William Alanson White Institute, New York City. Charles C. Dahlberg, Principal Investigator.

When the readjustment process fails, the depression continues, and there is a slowing down of thought processes as well as of physical process. At times, this may be so severe that the individual is in something like a state of stupor. While such a state is relatively uncommon, especially in young people, lesser degrees of it are not infrequent. This is a pathological process.

In persons with this pathological depression, there has been a period in the very early part of their life in which there was a strong gratification of their needs. They were very well taken care of; affection was lavished upon them. Shortly thereafter -- possibly in the second or third year of life -- came a period of deprivation. The mother of the infant may have had a second child, may have been ill, or she may have suffered a loss which caused her to become depressed and withdraw her attention from the child. The child may have become ill, and so was forced to be taken care of. If this deprivation was not so severe as to cause the child to become psychotic and permanently to withdraw from human contact, or possibly even die, he made certain adjustments, which consisted of finding ways to get attention. These tended to be along the lines of being compliant and winning, but may have alternated with expressions of rage. Of one thing the child became convinced; that is, that somehow or other he can, by doing the right thing, regain the love and attention he has lost.

When symptoms of depression occur in later life, they are due to a deprivation or loss; if the depressive symptoms are pathological, they reactivate the early loss that the child suffered. As Arieti says, "The actual manifest symptomatology of depression occurs when a symbolic reproduction of the early trauma takes place in later life". Because of his early conviction that it is his fault that the loss has taken place, the person blames himself; however, he may project the blame on others. This self-blame, and the accompanying feeling of helplessness, is important in the patient's attempt to find a new way of life, which may include the taking of drugs.

Symptoms of depression include self-blame, depressed mood, fatigue, feelings that one has a physical disease, agitation, insomnia (especially early morning sleeplessness), suicidal thoughts, difficulties in concentration and thinking, irritability and changes in one's appetite for food.

Depression as Cause

I will deal here with the college student who consistently takes drugs. With variations, what I am about to say can be applied to persons in other situations. A typical case history would run as follows.

The student is a young man of about 17 or 18 years old who comes from a middle class family. He is somewhat overindulged, and has a fairly close attachment to his mother. He has suffered some periods of mild depression in his past, and during his adolescence has sometimes dealt with this by overtly rebellious and hostile behavior. On the whole, however, his relationship with his family is reasonably satisfactory. He is looking forward to going away to college and has fantasies of the freedom from family restriction that this will bring him. However, it is not necessarily true or even likely that his family has been unduly restrictive with him. In fact, quite commonly, the family has offered him a good deal of freedom. Some of the conflict with them has been caused by the fact that the lack of restrictions has made him anxious and forced him to feel he has to exert himself in sexual and social ways that make him have doubts about his adequacy. The factor of freedom as a cause of anxiety and of hostility towards his parents is, however, not usually recognized by either the young man or his parents.

On arriving at college, he responds with excitement and apprehension. The classwork demands, while possibly quite heavy, are, however, not the demands for day to day work that he was familiar with, and so his studies could easily be put off. Being with new people and the problems of forming new friendships may have given rise to homesickness (a variety of depression) and caused him to find solance in excessive reverie and day-dreaming. The resulting problems in concentration make his school work harder. Day-dreaming includes thoughts about how nice things were at home; speculations about the fidelity of his girl friend, from whom he is separated; and grandiose thoughts about great future successes, which are countered by self doubts and fear of failure.

Having heard talk about the wonders of various drugs, and perhaps having friends who used them and encouraged him to do the same, he tries them. The drugs either have an unpleasant effect, which makes him stop using them, or induce feelings of euphoria, love, peace, and freedom from fear. If his depression is not too severe and he is able to maintain his judgment, he controls the drug use. If, however, he uses the drugs in higher dosages and with greater frequency, his performance in school gets worse, and he finds that nothing much matters except his drug-induced "high".

The subsequent course varies from person to person, depending upon a number of factors, which I will not go into.

The amphetamines (d-l amphetamine, dextro-amphetamine, methamphetamine) and the amphetamine-like drugs (methylphenidate, phenmetrazine) have a specific mood-elevating effect in most people. This effect, together with the appetite depressant effect, are the principal reasons why they are prescribed. These drugs are also widely used as stimulants to increase alertness and sometimes physical performance. It is also sometimes thought (fallaciously) that they increase learning ability. Many students use them around exam time to help stay awake. On the hypothesis that if a little is good, more is better, dosage may be increased rapidly to many times the usual amount. The person then discovers that he is using amphetamines more and more frequently, since that is the only time he feels good. When taking the drug, he feels confident, active, cheerful, talkative, and less worried.

The usual way these drugs are taken is by mouth; but the student may discover that it is possible to obtain methamphetamine in a more or less pure crystal form and sniff it, thereby getting more rapid and more pleasurable effects. He may also inject larger amounts directly into a vein. Dosages of up to 100 times the usual amount have been taken this way. If he is eager enough to take the drug and cannot get the crystalline form, the individual may either sniff or inject the commercial product, which contains other substances to dilute it. Persons taking these large quantities do so for the "jolt", or "rush", and the subsequent state of altered consciousness. They are incapable of adequate academic or any other kind of work. They get a sense of power, importance and detachment which frees them from the normal concerns of everyday life.

LSD (lysergic acid diethylamide), in addition to causing hallucinations and other perceptual distortions, induces strong feelings of well-being, benevolence, and excitement. Judgment is seriously diminished, and suggestibility is heightened. Ideas which formerly would have seemed ridiculous can be easily accepted and may be imbused with a special sense of importance. These feelings can last for several days after taking the drug, and they are extremely pleasant. The new

ideas may be permanent. Persons using LSD often feel they have found a "higher truth", and this makes the built-in or externally induced demands from school and family unimportant.

The sedative drugs, of which there are a large number, include not only the barbiturates, but also the non-barbiturate sedatives and some of the so-called tranquilizers, such as meprobamate, diazepam, and chlordiazepoxide. (Not included among these tranquilizers are the phenothiazine drugs of which the main example is chlorpromazine.) The sedatives and tranquilizers, while not specifically anti-depressant, will sometimes have a secondary anti-depressant effect by relieving tension and the hostility which is so frequently behind depression. When this effect is produced, the resulting sense of peace can induce a temporary feeling of well-being and benignity. Sedatives are frequently used in combinations with the amphetamines. The sedative-stimulant cycle wherein one takes amphetamine in the morning and a sedative at night can be quite vicious.

Cocaine and the opiates, as well as alcohol, can also relieve depression and anxiety, but they will not be discussed here.

Depression as Result

In this section, I will discuss only the amphetamines and LSD. After marijuana, these are the two drugs most commonly used by students and are the cause of many serious depressions. Most of what I have to say comes from my independent research on LSD and the amphetamines, but is confirmed by my clinical observations on persons who have taken these drugs on their own.

A curious phenomenon is frequently seen when an amphetamine is used over a period of time. It is as if there were a build-up of the depression through the suppression of depressive feelings. The result is increasingly strong depressive feelings during the time when the person is coming down from his amphetamine "high", and for some time after. Suicides have been reported in long time users of amphetamines who were deprived of the drug. The following verbatim statements from a depressive patient who was given 20 mg. of dextroamphetamine as part of an experiment, give some clue as to how the depressive build-up comes about. This patient has an unusual capacity for self-observation and so her remarks can be taken seriously.

Three hours after swallowing the pill, she said that it had made her feel optimistic; but now that she was talking to me, "the other side of the ledge is there all the time. I am constantly aware that I may feel terrible at any moment."

About a half hour later, she said that she was afraid to think because she felt she would get depressed, even though at the moment she was not. This is what the ledge referred to -- she felt a border over which she could fall into a precipitous depression. Her splintered thoughts seemed dangerous, and situations she had previously resolved made her angry, or more truly, afraid she would get angry so she avoided them for fear of "going under".

Shortly thereafter, she said that she knows that bothersome things usually pass quickly; and even if they are depressing, it isn't overwhelming. "But now I'm feeling good and I'm afraid of losing it."

The following day she spoke about how keyed up and sensitive to noise she had been even 12 hours after the dose.

She was given 200 mgm of secobarbital for sleep 10 hours after the dextroamphetamine, but her dreams were full of impossible situations that she felt she had to control and could not. Her young daughter looked in on her during the night, knocking on the door before entering. The mother frantically jumped out of bed and rushed around the room. Fortunately, the daughter calmed her down, and the patient returned to bed. She had no memory of the episode the next morning.

Forty-eight hours after taking the drug, she was feeling better, but was subdued and said, "Every once in a while I have to pull in and protect myself. I feel I'm undergoing a healing process."

Freely translated, I think what this patient was saying is that the drug made her feel good but did not free her from the awareness of her problems. She was, however, loathe to go into these problems since she wanted to maximize the good feelings. This means, then, that problem areas were set aside to be dealt with at a later time. This referred not only to intrapsychic problems but to ordinary problems of daily living -- the sort of thing that in a student would mean doing his homework, writing a paper, or studying. Eventually, if the individual has taken an amphetamine for a long enough period of time, there would be such a build-up of both of these varieties of problems that he could well be overwhelmed by them.

In addition, most amphetamine users suffer from some degree of malnutrition, vitamin deficiency, and fatigue, since the drugs depress appetite and prevent sleep. It is common knowledge that malnutrition and fatigue can accentuate depression. The combination of all these factors, i.e., depressive build-up, malnutrition, and excessive fatigue, can lead to a depression of psychotic magnitude.

LSD activates the depressive potential by inducing regression. One of the more interesting parts of the LSD experience is the return of previously forgotten events in early life. These events are frequently traumatic and have been forgotten because they were painfully important. They often tend to center around events in early childhood and deal with periods of emotional deprivation. Such episodes as of times when patients were separated from their parents through hospitalization or vacations, or by being institutionalized because of being orphaned, are documented in the literature on LSD. This regression/depression is similar to what I mentioned earlier when speaking of a present loss being a symbolic representation of an infantile deprivation. I want to emphasize here that I am not referring to a "bad trip". The LSD experience that causes regression (and depression) is most likely joyful, nostalgic, and replete with happy as well as unhappy memories. It is only later, when the LSD euphoria has worn off, that the depressive symptoms appear. I also do not wish to suggest that the regression/depression is invariable. Many LSD experiences do not result in depression. There are several reasons for this, one of which is that not all persons are potential depressives; another is that many LSD trips are superficial. However, when the depression occurs, it can be usefully exploited as a part of a systematic psychotherapeutic procedure if the patient is in psychotherapy. When the regression/depression occurs randomly and without psychotherapeutic satisfaction of dependency needs, the consequences may be disastrous. Serious depressive symptoms, even leading to suicide, are an important consequence of the LSD activation of the depressive potential.

To recapitulate: Students not uncommonly experience a normal or pathological psychic depression. When this happens, they may find symptomatic relief through the use of amphetamines or LSD. Amphetamines are likely to increase the total depression by way of a depressive build-up. LSD may release the depressive potential even in a previously nondepressed student.

CCD

Footnotes

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5. Bowlby, J. Processes of mourning. International Journal of Psycho-Analysis, 1961, 42, 317-340.

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UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
Madison, Wisconsin 53706
Phone 262-3130 (Area Code 608)

Extension Services in Pharmacy

PROBLEMS IN DRUG ABUSE

The attached study materials are to be used in conjunction with the lecture entitled

"Narcotics and the Law"

to be presented by

William Butler Eldridge, LL. B.
Director of Research
The Federal Judicial Center
1520 H Street, N.W.
Washington, D. C. 20005

on

MAY 13, 1969
(TUESDAY)

Table 1

Persons Charged with Nonfederal Narcotic Law Violations 1932-1962

(By Size of Community: per 100,000 Inhabitants)

Year	Total Rate	Over 250,000	100,000-250,000	50,000-100,000	25,000-500,000	10,000 25,000	Under 10,000
1932	5.9	8.5	8.2	3.1	2.3	2.5	3.6
1933	7.9	9.7	21.1	3.2	2.7	1.8	1.9
1934	7.6	11.4	9.0	4.0	3.0	2.3	1.0
1935	7.9	12.0	10.5	3.9	3.4	1.6	2.0
1936	7.7	11.9	6.8	4.4	3.2	1.1	1.7
1937	7.2	11.4	6.0	5.2	2.0	1.4	2.0
1938	6.7	10.0	716	4.0	2.4	1.8	2.6
1939	6.3	10.7	4.8	2.7	1.8	2.3	2.3
1940	4.7	7.7	3.7	4.9	1.2	1.0	1.1
1941	3.8	5.8	2.9	4.9	1.5	0.9	1.7
1942	4.1	7.7	3.5	3.7	1.1	1.6	2.2
1943	4.6	7.5	3.0	4.9	2.1	0.9	1.0
1944	4.5	7.4	3.5	4.5	1.8	1.3	1.2
1945	4.0	5.7	4.3	4.2	1.8	1.7	1.7
1946	4.7	7.1	4.7	4.7	2.2	1.8	1.5

Table 1 (continued)

Year	Total Rate	Over 250,000	100,000-250,000	50,000-100,000	25,000-50,000	10,000-25,000	Under 10,000
1947	5.3	7.5	4.2	5.2	4.9	2.1	2.4
1948	6.3	9.9	6.2	5.9	2.9	2.0	2.6
1949	9.5	16.8	6.8	7.2	4.0	3.0	2.6
1950	10.2	18.8	8.5	5.7	2.7	3.0	1.5
1951	12.8	23.1	12.5	6.5	4.2	3.4	1.0
1952	16.6	28.8	12.1	9.2	4.5	3.0	2.7
1953	19.2	31.9	13.8	13.4	5.0	4.8	3.3
1954	22.0	37.5	12.9	12.8	4.3	5.4	3.3
1955	24.1	43.1	13.0	9.4	5.0	4.6	2.6
1956	25.5	46.6	12.6	9.4	6.2	5.5	2.3
1961	25.2	57.8	15.0	12.9	9.3	6.4	2.8
1962	26.7	61.7	15.0	13.5	813	5.1	2.8

Source: Uniform Crime Reports, F.B.I. Comparable figures for 1957 to 1960 are not available.

Table 2

Persons Charged with Violation of Nonfederal Narcotic Laws by Geographic Divisions 1936-1956

(per 100,000 inhabitants)

Year	New Eng.	Mid. Atl.	E. No. Central	W. No. Central	So. Atl.	E. So. Central	W. So. Central	Mtn.	Pac.
1936	5.1	1.6	4.9	6.4	4.6	6.1	21.4	15.3	29.5
1937	3.4	2.3	4.5	5.0	5.4	5.0	22.5	13.5	26.7
1938	5.3	2.7	4.3	6.4	2.5	3.8	26.6	11.0	16.2
1939	5.5	3.0	4.5	12.0	2.3	2.6	24.8	7.0	5.9
1940	5.5	1.5	3.2	6.7	1.5	0.4	16.4	4.2	10.4
1941	1.6	1.2	2.5	1.6	1.8	1.8	18.5	6.1	11.5
1942	1.4	2.5	0.6	1.9	2.6	0.8	18.7	3.9	11.8
1943	1.2	1.9	3.1	1.4	5.9	4.7	16.4	3.4	14.2
1944	0.9	2.3	2.8	2.2	6.7	3.0	14.5	4.0	13.3
1945	1.6	1.8	2.7	1.7	1.7	1.8	19.1	4.4	10.7
1946	3.5	2.5	3.7	1.5	2.0	3.1	20.4	9.3	9.1
1947	3.0	2.5	3.3	1.2	4.5	8.5	15.3	9.4	16.5
1948	2.4	3.6	4.2	1.8	6.0	1.8	21.9	9.6	19.6
1949	4.2	4.3	6.9	2.2	10.1	2.9	33.3	12.1	28.2
1950	3.5	10.3	8.6	1.4	8.0	2.7	20.1	12.8	24.4

Table 2 (continued)

Year	New Eng.	Mid. Atl.	E. No. Central	W. No. Central	So. Atl.	E. So. Central	W. So. Central	Mtn.	Pac.
1951	4.6	9.5	12.1	1.4	15.6	2.6	22.8	13.0	30.6
1952	5.5	21.1	11.6	2.2	23.3	18.6	22.5	13.9	31.8
1953	7.6	25.6	12.8	2.4	24.1	20.9	25.1	16.7	36.9
1954	9.2	33.6	14.4	1.7	24.7	27.3	25.2	14.1	32.7
1955	9.5	38.0	17.6	3.7	24.9	9.4	32.6	15.2	31.2
1956	10.8	41.7	18.9	3.4	19.7	8.2	31.1	17.9	36.6

New England: Connecticut, Maine, Massachusetts, Rhode Island, Vermont, and New Hamshire.

Middle Atlantic: New Jersey, New York, Pennsylvania

East North Central: Illinois, Indiana, Michigan, Ohio, Wisconsin

West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

South Atlantic: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, District of Columbia

East South Central: Alabama, Kentucky, Mississippi, Tennessee

West South Central: Arkansas, Louisiana, Oklahoma, Texas

Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming

Pacific: California, Oregon, Washington

Source: Uniform Crime Reports, F.B.I. Comparable figures are not available after 1956.

Table 3

Criminal Cases Filed for Certain Types of Offenses in Ohio Common Pleas Court

1952-1959

Offense Charged	1952	1953	1954	1955	1956	1957	1958	1959
Robbery.....	617	773	907	841	799	853	1,045	900
Burglary.....	1,576	1,665	2,275	1,866	2,137	2,372	2,730	2,655
Larceny (non-auto)....	919	867	1,030	834	914	838	1,026	998
Forgery and counterfeiting.....	463	520	635	633	535	608	654	672
Embezzlement and fraud.....	841	873	996	924	1,002	1,122	1,276	1,248
Stolen property, buying, receiving, or possessing.....	112	81	126	108	110	119	141	120
Prostitution, commercialized vice.....	54	61	73	63	50	44	53	74

WBE-5

Table 4

PENALTIES FOR VIOLATIONS OF WISCONSIN LAWS REGULATING NARCOTICS

General Penalty Provisions - These apply to all violations of the law where some other specific penalty does not control. This would include failure to register, failure to keep appropriate records, stealing prescription blanks, forging prescriptions, etc.

1st Offense - Not less than 2 nor more than 10 years
2nd Offense - Not less than 5 nor more than 10 years
3rd Offense - Not less than 10 nor more than 20 years

Addiction - As a criminal provision the offense would be nullified by the decision of the United States Supreme Court in Robinson v. California.

Not more than 5 years which may be served by commitment to a hospital for treatment

Possession of Narcotics

Not more than 10 years

Sale and Transfer of Narcotics

Not more than 10 years

Sale to a Minor by an Adult

1st Offense - Not less than 3 nor more than 25 years
2nd Offense - Not less than 20 and up to life imprisonment
3rd Offense - Life imprisonment

Suspended sentences and parole are prohibited after the first offense until the minimum sentence is served.

APPENDIX D

News Releases

NEWS

UNIVERSITY EXTENSION
The University of Wisconsin

Office of Public Information, 432 N. Lake St., Madison, Wis. 53706 262-1156

10/24/68 cjg IMMEDIATELY

MADISON, Wis.---Wisconsin residents will have the opportunity to learn more about problems in drug abuse through a special lecture and discussion course developed by University Extension, the University of Wisconsin.

The health sciences unit of Extension will present the course from Jan. 21-May 27, 1969, using the educational telephone network (ETN). ETN is a communications system linking more than 100 conference locations on campuses, in hospitals and in courthouses throughout the state.

"There will be 15 two-hour meetings. Parents, clergy, teachers, social workers, enforcement and medical personnel or anyone interested are urged to enroll," said William L. Blockstein, chairman of Extension services in pharmacy. "The only requirement is interest in the drug problem."

Lecturers from around the country will be heard and be available for questions from the ETN stations. Slides and written materials also will be included in the course, and local moderators will be at each station, Blockstein added.

He and Jack R. Arndt, Extension specialist, Junior Academy of Science, and UW School of Pharmacy, developed the course, and Arndt will be among the lecturers. Others from UW include Dr. Joseph M. Benforado, School of Medicine, and Robert N. Morris, School of Pharmacy.

Topics will begin with the background of the drug abuse problem, covering historical development and basic issues, plus the functions and responsibilities of the federal government in controlling the abuse of drugs.

-more-

add one-drug abuse

Sessions also will cover sociological, psychological and cultural aspects of drug abuse; chemistry, pharmacology and adverse effects of abused drugs (narcotics, hallucinogens, depressants, stimulants and solvents); treatment and rehabilitation of drug users and prevention of drug abuse, covering both legal and educational aspects.

Other lecturers will be from the Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, Washington, D.C.; the National Institute of Mental Health, Lexington, Ky.; the Coordinating Council on Drug Abuse Education and Information, Washington; The William Alanson White Institute of Psychiatry, Psychoanalysis and Psychology, New York; the American Bar Foundation and several universities and medical schools.

Each lecture period will be from 8-10 p.m. on the following dates: Tuesdays, Jan. 21, Feb. 11 and 25, March 11, April 8, 22 and 29, May 13, 20 and 27, and Thursdays, March 27, April 3 and 17, May 1 and 22.

Information on registration and on ETN locations is available by writing Problems in Drug Abuse, Wisconsin Center, 702 Langdon st., Madison 53706, or telephone (608) 262-3130 or from Arndt at (608) 262-3932. Total registration for the course is $20.

Cooperating with the health sciences unit in presenting the course are other Extension divisions and the UW School of Pharmacy, the Wisconsin Departments of Health and Social Services and Public Instruction, Wisconsin Academy of Sciences, Arts and Letters, Wisconsin Pharmaceutical Association, Wisconsin Pharmacy Internship Board, Wisconsin Society of Hospital Pharmacists, Wisconsin Chiefs of Police Association, Wisconsin Sheriffs and Deputy Sheriffs Association and others.

-30-

COOPERATIVE EXTENSION PROGRAMS • UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706
(608) 262-2355

Division of Community Programs

November 14, 1968

To: Office Chairmen
University Extension Offices

Dear Colleague:

Because of the magnitude of the Drug Abuse ETN program, I will serve as coordinator within the Division of Community Programs. If I can be of assistance please let me know.

A new supply of brochures is available now and we can furnish these in quantity to those who respond promptly. Please let me know as soon as possible how many you would like. Drop a note in the mail or use the 8:40 ETN message service.

Although there has been a state press release made several weeks ago we are sending you a suggested local release which can be adapted to your own situation. Thus far only four counties have indicated who the local moderator is to be. As you know, the moderator should register for the course but does not pay a fee. He is to indicate on the enrollment form that he is the moderator at such a certain location.

As soon as we know who the moderators are they will receive special packets of material to assist them in preparing for their role. Thus far we have an attorney, a pharmacist, a county health officer, and a continuing education agent. This will give you some idea of the variety of persons who might serve in this capacity.

This letter is going only to county office chairmen and in counties where campuses are located chairmen should insure that campus-based community faculty are fully integrated in their planning for this program.

Sincerely,

J. Mitchell Mackey

J. Mitchell Mackey
Assistant Director

_____
(date)

_____
(source)

_____
(telephone)

For Immediate Release

_____ residents will have the opportunity to learn more about
(city or county)
problems in drug abuse through a special lecture and discussion course developed by University Extension, the University of Wisconsin.

The health sciences unit of Extension will present the course from Jan. 21-May 27, 1969, using the educational telephone network (ETN). ETN is a communications system linking more than 100 conference locations in the state.

"Fifteen two-hour meetings are scheduled. Parents, clergy, teachers, social workers, enforcement and medical personnel or anyone interested are urged to enroll," said _____, _____. "The only requirement is interest in the drug problem."
(name) (Extension title)

Information on the series and the nearest ETN center location and registration blanks are available from _____, telephone _____.
(name and/or office address)

Lecturers from around the country will be heard and be available for questions from the ETN stations. Some visual materials will be provided, and local moderators will be at each station. Total registration for the course is $20.

Course topics will begin with the background of the drug abuse problem, covering historical development and basic issues, plus the functions and responsibilities of the federal government in controlling the abuse of drugs.

-more-

add one-drug abuse

Sessions also will cover sociological, psychological and cultural aspects of drug abuse; chemistry, pharmacology and adverse effects of abused drugs (narcotics, hallucinogens, depressants, stimulants and solvents); treatment and rehabilitation of drug users and prevention of drug abuse, covering both legal and educational aspects.

Lecturers will be Jack R. Arndt, Extension specialist, Junior Academy of Science, and School of Pharmacy; Dr. Joseph M. Benforado, School of Medicine, and Robert N. Morris, School of Pharmacy, all of UW.

John E. Ingersoll, director, Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, Washington, D.C.; Isidor Chein, New York University psychology department; Alfred R. Lindesmith, Indiana University sociology department; Dr. E. Leong Way, University of California School of Medicine.

Dr. Carl F. Essig, Addiction Research Center, National Institute of Mental Health, Lexington, Ky.; Dr. Jacob Sokol, Loma Linda Medical School, University of Southern California; Dr. Alfred M. Freedman, New York Medical College psychiatry department; Dr. Charles Clay Dahlberg, William Alanson White Institute of Psychiatry, Psychoanalysis and Psychology, New York City.

William Butler Eldridge, American Bar Foundation; Neil L. Chayet, Law-Medicine Institute, Boston University; Helen H. Nowlis, director, drug education project, National Association of Student Personnel Administrators, University of Rochester, and George B. Griffenhagen, chairman, Coordinating Council on Drug Abuse Education and Information, Washington.

Each lecture period will be from 8-10 p.m. on the following dates: Tuesdays Jan. 21, Feb. 11 and 25, March 11, April 8, 22 and 29, May 13, 20 and 27, and Thursdays, March 27, April 3 and 17, May 1 and 22.

-more-

add two-drug abuse

Cooperating with the health sciences unit in presenting the course are other Extension divisions and the UW School of Pharmacy, Wisconsin Departments of Health and Social Services and Public Instruction, Wisconsin Academy of Sciences, Arts and Letters, Wisconsin Pharmaceutical Association, Wisconsin Pharmacy Internship Board, Wisconsin Society of Hospital Pharmacists, Wisconsin Chiefs of Police Association, Wisconsin Sheriffs and Deputy Sheriffs Association and others.

-30-

State of Wisconsin \ DEPARTMENT OF REGULATION & LICENSING
Kenneth E. Priebe
Secretary

PHARMACY INTERNSHIP BOARD
MAX A. LEMBERGER, DIRECTOR
110 N. HENRY STREET
MADISON, WISCONSIN 53703

TO: Pharmacy Interns

SUBJECT: December 2, 1968-Milwaukee Intern-Preceptor Meeting

The December 2, 1968 meeting at the home of preceptor, Joseph Sowinski will be a discussion by Mr. David Zilz, of the University Hospitals, on "Parenterals and I.V. Additives." This will be an excellent opportunity for acquiring the information and knowledge of this experience for your internship program.

For those interns unable to attend this meeting, arrangements have been made through Dr. William Blockstein so that you may attend the December 10 tele-lecture (at no fee) on Electrolyte Therapy/I.V. Additives given by Mr. David Zilz and Mr. Virgil Lee. Page 5 to 8 of the enclosed brochure list the different tele-lecture stations. Those attending the tele-lecture please indicate to the moderator that you are in attendance as a pharmacy intern.

I also wish to call your attention to the enclosed brochure on "Problems in Drug Abuse." As pharmacists, one of our most important roles is to establish and participate in community programs on Drug Abuse. This tele-lecture series will be an excellent opportunity to grow in knowledge so you can be of more service to your community in this need. I also encourage you to bring this program to the attention of other colleagues and responsible community organizations so they also will be in attendance.

Sincerely

Max A. Lemberger
Director of Internship

MAL: rd

Enclosure: Brochure: "Problems in Drug Abuse"
Directions to J. Sowinski Home

NEWS from

UNIVERSITY EXTENSION

The University of Wisconsin

Office of Public Information, 432 N. Lake St., Madison, Wis. 53706 262-0074 262-1156

12/9/68 jw

Immediately

MADISON--Registration closes Dec. 27 for a lecture-discussion series on drug abuse to be presented by University of Wisconsin Extension next month.

The course, conducted over the Educational Telephone Network (ETN) Jan. 21-May 27, is open to parents, clergy, social workers, enforcement and medical personnel, and other persons interested in the drug problem.

ETN is a communications system linking more than 100 conference locations on campuses, in hospitals, and courthouses throughout the state.

Developed by the health science unit of Extension, the series will consist of 15 weekly meetings held from 8 to 10 p.m.

Enrollees will join in telephone discussions with other participants in the state and with experts from federal drug agencies and national health, legal, and psychiatric organizations speaking from stations around the country.

Sessions will begin with the background of the problem, plus the functions and responsibilities of the federal government controlling the abuse of drugs usage.

Other topics will cover the sociological, psychological, and cultural aspects of drug abuse; chemistry, pharmacology, and adverse effects of abused drugs; treatment and rehabilitation of users and prevention of abuse from both legal and educational aspects.

Information on registration and ETN locations is available by writing Problems in Drug Abuse, Wisconsin Center, 702 Langdon St., Madison 53706 or calling 262-3230 or 262-3932. Fee for the course is $20.

###

Extension Service Offers ETN Course in Drug Abuse

Oshkosh Northwestern 12/20/68

By VERNON PEROUTKY
County Agriculture Agent

Topics for study on "Drug Abuse," a 30-hour lecture course is being offered on Educational Telephone Network beginning Tuesday, Jan. 21, and concluding May 22. Each weekly session runs from 8-10 p.m. ETN hookup in the Courthouse, Oshkosh, is reserved for the series.

This "Drug Abuse" program will originate at the University of Wisconsin, Madison, and is organized by W. L. Blockstein, chairman, extension services in pharmacy.

Blockstein is a member with me, on the University Extension five member faculty committee.

He told me at one of our meetings that a potential of over 900 enrollees is anticipated over the 115 ETN stations in Wisconsin, including the Courthouse here. Details are available at our office, University Extension, Courthouse. Enrollees would include anyone interested including police, government leaders, teachers, parents, PTA members, service clubs, etc.

Every so often, I get a call inquiring whether or not a specific plant is poisonous. Our office isn't the only place getting such questions.

Recently, Fred Behlendorf, an Oshkosh florist, asked about a customer's inquiry in concern of poinsettia, is it poisonous? In checking my poisonous plant list, sure enough, its milky sap, if you eat a plant or two, is apt to cause dermatitis. This is an infection under the outer skin.

Really, one shouldn't get shook about this since some people can't eat strawberry fruit for the same reason. I would be more concerned if someone by mistake ate the bulb of a Narcissus of Daffodil, or the unripe seed pod of an Opium poppy. These latter two contain very poisonous substances. I guess common sense would lead one to know there are better vegetables than Narcissus bulbs and Opium poppy unripe seed pods.

Recently a conference was held in the Courthouse on Preservation of Significant Natural Resource Areas, the first of its kind as far as I know in Wisconsin. It was sponsored by the Northeastern Wisconsin Regional Planning Commission. University Extension cooperating.

Informational discussions were presented by specialists in areas of biology, ecology, archeology, wildlife and fish, geology and local history. Our county, as most others, has vast areas needing preservation of these areas for people of our time and people of the future. The problem as I see it, is communication and appreciation by people, of these values.

One question raised was, what has caused the lessened amount of vegetation in recent years on Lake Butte des Morts. I get mixed emotions by lake shore owners who bring up the subject. Over the years, some have cut or pulled aquatic plants to ease boating or in their opinion, make a better lake view. Others like a swamp-like view.

Anyhow, it seems to me it would be of value for qualified scientists to make a study as to why vegetation has left this lake. In my opinion, hunches or guesses don't mean a thing.

Set tele-lecture on drug abuse

The Paper 12/21/68

The many-sided problem of drug and chemical abuse is the topic of a tele-lecture course offered in January by University Extension and the University of Wisconsin.

Entitled "Problems in Drug Abuse," the course is directed toward pharmacists, nurses, physicians, lawyers, social workers, teachers, clergy, enforcement personnel, parents and others interested in this topic of current concern.

The course will extend from Jan. 21 to May 27 and will be made available by using the tele-lecture technique and Wisconsin's Educational Telephone Network which connects 100 conference stations throughout the state.

Special topics convered will be: background of the drug abuse problem; psychological and sociological aspects of drug abuse; chemistry, pharmachology and adverse effects of abused drugs; treatment and rehabilitation of drug abusers; and prevention of drug abuse, both its legal and educational aspects.

For further detailed information and registration procedures, information may be secured by phoning extension offices.

Special Course To Probe Problems of Drug Abuse

Janesville Gazette 12/21/68

ELKHORN—A 30-hour course dealing with problems of drug abuse will start in Walworth County next month, according to Stanley W. Ihlenfeldt, agri-business agent. Subject matter will be designed for parents, clergy, teachers, social workers, law enforcement and medical personnel, he said.

The health sciences unit of the University of Wisconsin Extension will present the course from Jan. 21 to May 27, using the educational telephone network. Dave Bollweg, juvenile officer of the Walworth County Sheriff's Department, will serve as local moderator.

Lecture periods have been scheduled 8-10 p.m. Tuesdays and Thursdays. The registration charge will be $20. Further information may be obtained from the extension office in the courthouse here. Friday, Dec. 27, is the deadline for enrollment.

Drug Course Is Taught by Phone

WSJ 1/13/69

A state-wide course on drug abuse to be taught via the telephone link-up of more than 100 hospitals, courthouses, and campuses, and sponsored by the University of Wisconsin Extension Division, will begin Jan. 21.

Enrollees will go to the educational telephone network (ETN) station nearest them.

In Madison, Richard G. Henry of the Madison General Hospital, and Miss Diane Varme, the young adult director at Bethel Lutheran Church, will moderate the class at the Wisconsin Center.

Also moderating the class will be Robert H. Schacht, director of Madison programs and special projects for University Extension, and Martha Asthana, 2632 Stevens St.

During the 15 two hour meetings, experts from the University, federal agencies, and varied organizations across the country will lecture. Registration fee is $20 at the University Extension.

Lecture Course On Drugs Set

1/4/69

Call-Crescent-Herald-Times

APPLETON — Outagamie County residents will have the opportunity to learn more about problems in drug abuse through a special lecture and discussion course developed by University Extension, the University of Wisconsin, according to Russell Luckow, Outagamie County Agricultural Agent.

The health scienes unit of Extension will present the course from Jan. 21 to May 27, 1969, using the Educational Telephone Network (ETN). ETN is a communications system linking more than 100 conference locations in the state.

Luckow said 15 two-hour meetings are scheduled. Parents, clergy, teachers, social workers, enforcement and medical personnel or anyone interested are urged to enroll. The only requirement is interest in the drug problem.

Information on the series and the nearest ETN center location and registration blanks are available from University Extension-Outagamie County, Office, Room 102, Courthouse, Appleton, telephone 739-6461 or 739-6462.

NEWS

UNIVERSITY EXTENSION

The University of Wisconsin

Office of Public Information, 432 N. Lake St., Madison, Wis. 53706 262-1156 262-007

1/8/69 cjg

immediately

will serve as moderator for this area at for the 30-hour telelecture-discussion series on drug abuse starting Jan. 21.

The course will be conducted over theeducational telephone network (ETN) of University Extension, the University of Wisconsin.

Experts on the drug problem from the university and from federal agencies and varied organizations across the country will lecture. Discussion will follow via the ETN loudspeaker and telephone hookup linking more than 100 conference locations at hospitals, courthouses and campuses in Wisconsin. Enrollees go to the network station nearest them.

Anyone interested in the drug abuse series may still enroll and should contact their University Extension county office for more information. Fee for the course is $20.

The health sciences unit of Extension is presenting the series, consisting of 15 meetings from Jan. 21-May 27. Topics will cover historical background, sociological, psychological and legal aspects of drug abuse, chemistry, pharmacology and adverse effects of abused drugs, treatment and rehabilitation of drug abusers and drug abuse education.

-30-

APPENDIX E

Letters to Course Conveners

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderators

From: Jack R. Arndt, Specialist

Thank you for agreeing to serve as the local moderator for the 1969 Tele-Lecture course, Problems in Drug Abuse. We promise that we will do all we can to keep your duties to a minimum. There are some points that are common to each of the lectures, so we will treat them in order:

1. The course schedule, as you will recall, is 8:00 to 10:00 p.m. on the following Tuesdays and Thursdays:

Tuesdays	Thursdays
January 21	
February 11 & 25	
March 11	March 27
April 8, 22 & 29	April 3 & 17
May 13, 20 & 27	May 1 & 22

2. On the evening of each lecture, we ask that you plan to be at the conference location about 15 minutes before the start of the lecture. Go to the room where the course is scheduled, turn on the speaker, and set up the slide projector. With the speaker on you will hear all communications over the entire circuit and we will call you in by the name of your community. When called in, answer over the telephone handset.

3. When we have completed the check-in with all locations, the lecture portion of the program will begin and continue (depending on the topic) for 40-45 minutes. If slides are called for, show these as required. Slides will be numbered; just follow the request of the lecturer.

4. At the conclusion of each lecture, there may be a few brief announcements while those individuals at your location write out their questions and pass them up to you.

5. Within time limitations, we will call each station, in rotation, for questions. It may not be possible to answer all the questions due to time limitations but we will do our best. When we call you in, ask the first question. It will be answered by our lecturer and the answer will go out over the entire circuit. The order of location calls will vary each week. When you lift up the telephone handset to ask us a question, you cut out your loudspeaker, so be sure to hang-up the handset immediately after you have asked the question. When you do hang-up, all those individuals at your location will hear the answer. If you have more than one question, repeat the same steps. The maximum number of questions allowed from any one station will be three so that we can give everyone a chance.

6. As moderator, you may find that those attending at your location will want to continue discussion after the 10:00 p.m. close of the network. If you can stay and lead the discussion, we will be grateful to you for your efforts.

7. At the conclusion of each evening's lecture, we ask that you have each "student" print his or her name on the attendance sheet that we will supply to you. Many teachers, pharmacists and police officers are receiving in-service credit for attendance and a readable record is required.

8. Finally, reassemble the slides and insert them, along with the attendance sheet, into the pre-addressed envelope which we will supply to you and mail it. We will keep a record of your expenditures for postage and reimburse you for these out-of-pocket expenses.

If you have any questions, please feel free to call me at 262-3932 (Area Code 608). All conference locations are set for the course, students are enrolled and you have been good enough to agree to serve as moderator. We appear to be on our way to a successful course and count on you for your valued assistance.

Thank you for your cooperation.

ATTENDANCE SHEET - TELE-LECTURES 1969 (SPRING)

Date _____ Location _____ Moderator _____

Please PRINT FULL NAME below. PRINTING helps us to identify you for accurate recording of attendance for in-service credit and for certification. Please cooperate.

1. _____
2. _____
3. _____
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6. _____
7. _____
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9. _____
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37. _____
38. _____
39. _____
40. _____
41. _____
42. _____
43. _____
44. _____
45. _____

Moderator: at conclusion of lecture, mail to:

Jack Arndt
Room 741 Ext. Bldg.
432 N. Lake St.
Madison, Wi. 53706

(use reverse for additional names)

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderators

From: Jack R. Arndt, Specialist

Enclosed you will find 25 slides which should be shown in conjunction with the lecture to be given by Mr. John E. Ingersoll, on Tuesday, February 11, 1969.

Slides 1, 2 and 3 should be shown in succession during the introduction of Mr. Ingersoll at the beginning of the lecture (8:00 p.m.) as follows:

Slide 1

"On February 7, 1968, the President of the United States transmitted to Congress his Reorganization Plan No. 1 which called for the consolidation of Federal enforcement and control of narcotics and dangerous drugs in one new and enlarged agency."

Slide 2

"On April 8, 1968, that plan became a reality with the merger of the Bureau of Narcotics and the Bureau of Drug Abuse Control into the Bureau of Narcotics and Dangerous Drugs, within the U.S. Department of Justice."

Slide 3

"On August 1, 1968, John E. Ingersoll was appointed Director of the new Bureau. Let me introduce the Director of the Bureau of Narcotics and Dangerous Drugs, John E. Ingersoll."

Slide 3 should be turned off one minute after Mr. Ingersoll is introduced.

Cues will be given orally by Mr. Ingersoll to indicate when the next slide should be shown.

To assist you, we have listed below the approximate times the slides will be shown:

8:00 p.m.	Slides 1 - 3
8:08 p.m.	Slides 4 - 7
8:17 p.m.	Slides 8 - 11
8:27 p.m.	Slides 12 - 13
8:28 p.m.	Slide 14
8:30 p.m.	Slides 15 - 16
8:32 p.m.	Slides 17 - 19
8:34 p.m.	Slides 20-25

The lecture ends at 8:55.

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderators

From: Jack R. Arndt, Specialist

Our Tele-Lecture series is progressing well. We are grateful to you for your assistance and cooperation in making Problems in Drug Abuse a success.

Following are several items for your information:

1. Enclosed are attendance sheets and return envelopes for Tuesday, February 25 and Tuesday, March 11. Since many participants will be receiving local credit for their attendance, it is important that we maintain complete and accurate records of attendance. Only those individuals who have registered for the series should print their names on the attendance sheets. Please return the attendance sheet promptly after each Tele-Lecture.

2. There are no handout materials or slides to be used in conjunction with Professor Chein's lecture on Tuesday, February 25.

3. The handout materials for Professor Lindesmith's lecture on Tuesday, March 11 will be in the mail to participants by Friday, February 21. There will be no slides for the March 11 Tele-Lecture.

4. Some moderators have asked us if it would be possible to limit the question-answer session to one-half hour to allow time for discussion at the local conference locations. We will continue our practice of having a one-hour question-answer session. If the consensus of your group is that they would prefer to have local discussion instead of participating in the statewide session, you have the prerogative of turning off your speaker set and continuing discussion among yourselves.

5. When slides are used for a particular Tele-Lecture, please be sure to return them all to us as soon as possible after the Tele-Lecture. If you would like to make copies of any or all of the slides, please feel free to do so—retain all the slides until your copies are made and then return all of our copies to us at one time.

6. Moderators, please be selective in choosing the questions you ask of the lecturers. The questions you ask should provoke an answer which will be of general interest to the majority of the group listening on the entire circuit. We realize this is not an easy task, but we hope you will give it your utmost consideration. Do not feel compelled to ask a question each time your location is called.

Again, thank you for your help. If you have any questions or comments, please feel free to call me at (608)262-3932.

February 19, 1969

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderators

From: Jack R. Arndt, Specialist

Enclosed you will find attendance sheets and return envelopes for the tele-lectures to be presented Thursday, March 27 and Thursday, April 3.

We have not received attendance sheets from past lectures from several locations. Since this is the only means we have of certifying the attendance records of an individual, it is important that the attendance sheets be returned to us promptly. Please do not wait until after the last tele-lecture (May 27) to return attendance sheets.

Please note that there are no slides or no handout materials for the March 27th tele-lecture.

Handout materials for the tele-lectures on April 3 (Benforado) and April 8 (Essig) are being mailed today to each registered student.

There will be four slides to accompany the tele-lecture on April 8. We plan to mail these to you along with the attendance sheet for that lecture on Wednesday, April 2.

We are pleased with the way the tele-lecture series is progressing, and we hope that all participants are enjoying and benefiting from the series. We are appreciative of your contributions toward making the series successful.

If you have any questions or comments, please feel free to call me at (608) 262-3932.

March 21, 1969

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderators

From: Jack R. Arndt, Specialist

Enclosed you will find several items:

1. A listing of the conference locations receiving the tele-lecture series. This is the list we use when we call locations for questions after each lecture. You may find it useful in anticipating when we will call your location for questions.

2. Attendance sheets for Tuesday, April 8 and Thursday, April 17.

3. Four slides which will be used in conjunction with Dr. Essig's lecture on TUESDAY, April 8. Dr. Essig will briefly discuss these slides at the end of his lecture, about 8:38 p.m. As you are probably aware, these slides have been duplicated in handout form and provided to each student for future reference.

The slides are numbered (1-4) directly on the film. Although Dr. Essig will not refer to the slides by number, 1-4 is the proper sequence.

The slides should be placed in the projector up-side-down, with the black side toward the screen. There will be a 10-15 second pause between the explanation of each slide.

Please return all four slides along with the attendance sheet for April 8.

Thank you for your assistance and cooperation. If you have any questions or comments, please feel free to call me at (608) 262-3932.

April 2, 1969

PROBLEMS IN DRUG ABUSE
1969 Tele-Lecture Series

Conference Locations

ALMA - Old Courthouse
ANTIGO - Courthouse
APPLETON - Memorial Hospital
ASHLAND - Courthouse

BALDWIN - Community Hospital
BALSAM LAKE - Agriculture Center
BARABOO - Courthouse
BARRON - Courthouse
BEAVER DAM - St. Joseph Hospital
BLACK RIVER FALLS - Courthouse
*BLOOMER - Community Memorial Hospital

CHILTON - Calumet Memorial Hospital
CHIPPEWA FALLS - St. Joseph Hospital
CUBA CITY - Medical Center

DODGEVILLE - Agricultural Center
DURAND - Courthouse

EAU CLAIRE - Sacred Heart Hospital
ELKHORN - Courthouse
ELLSWORTH - Courthouse

FOND DU LAC - St. Agnes Hospital
FORT ATKINSON - Memorial Hospital

GREEN BAY - St. Vincent Hospital
GREEN LAKE - Courthouse

HAYWARD - Courthouse
HAZEL GREEN - Hazel Green Hospital
HURLEY - Courthouse

JANESVILLE - UW Rock County Center
JEFFERSON - Courthouse

KENOSHA - UW Parkside - Kenosha Campus
KEWAUNEE - Courthouse

LA CROSSE - Lutheran Hospital
LANCASTER - Youth & Agriculture Bldg.

MADISON - Madison General Hospital
MADISON - Wisconsin Center
MANITOWOC - Courthouse Annex
MARINETTE - UW Green Bay-Marinette County Campus
MARSHFIELD - UW Marshfield Wood Co. Campus
MAUSTON - Courthouse
MENOMONIE - Courthouse
MERRILL - Holy Cross Hospital
MILWAUKEE - St. Mary Hospital
*MONDOVI - Buffalo Memorial Hospital
MONROE - Courthouse
MONTELLO - Courthouse

NEILLSVILLE - Memorial Hospital
NEW LONDON - Community Hospital

OSHKOSH - Courthouse

PARK FALLS - Memorial Hospital
PHILLIPS - County Normal Bldg.
PORTAGE - County Admin. Bldg.
PORT WASHINGTON - St. Alphonsus Hospital
PRAIRIE DU CHEIN - Memorial Hospital

RACINE - UW Parkside-Racine Campus
RHINELANDER - Fairgrounds Education Bldg.
RICHLAND CENTER - CountyExtension Office
RIVER FALLS - St. Joseph Hospital

SHAWANO - Courthouse
SHEBOYGAN - UW Sheboygan County Center
SHELL LAKE - Memorial Hospital
SPARTA - Courthouse Annex
SPOONER - County Highway Building
STEVENS POINT - St. Michael Hospital
STURGEON BAY - Safety Building
SUPERIOR - Courthouse

WAUKESHA - UW Waukesha County Center
WAUPACA - Courthouse
WAUSAU - UW Marathon County Center
WAUTOMA - Courthouse
WAUWATOSA - Lakeview Hospital
WEBSTER - County Office Bldg.
WEST BEND - UW Washington Co. Campus
WHITEHALL - Courthouse
WISCONSIN RAPIDS - Riverview Hospital
WOODRUFF - Lake Land Memorial Hospital

NIAGARA

*SCA

3/27/69

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderators

From: Jack R. Arndt, Specialist

Enclosed are attendance sheets and return envelopes for the remaining lectures in the Tele-Lecture series Problems in Drug Abuse:

Tuesday, May 13	Thursday, May 22
Tuesday, May 20	Tuesday, May 27

The slides for the May 27th lecture will be sent to you on Wednesday, May 21.

Thank you for your continued assistance and cooperation. If you have any questions or comments, please feel free to call me at (608) 262-3932.

May 7, 1969

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderators

From: Jack R. Arndt, Specialist

Re: Slides to be shown in conjunction with the May 27th Lecture.

Enclosed you will find the sixteen (16) slides to be shown in conjunction with the lecture to be given by Mr. George Griffenhagen on Tuesday, May 27, 1969.

The slides should be placed in the projector up-side-down with the black side of the frame toward the screen. The number written on the white side of the slide frame will then appear in the upper right hand corner as you stand behind the projector.

Cues will be given orally by Mr. Griffenhagen to indicate when the slides should be shown. To assist you, we have listed below the approximate times the slides will be shown:

8:00 p.m.	Lecture begins		
8:13	Slide 1	8:25	Slide 9
8:15	Slide 2	8:26	Slide 10
8:17	Slide 3	8:28	Slide 11
8:20	Slide 4	8:29	Slide 12
8:21	Slide 5	8:30	Slide 13
8:22	Slides 6-7	8:31	Slides 14-16
8:23	Slide 8	8:32	End of Slides
		8:42	Lecture ends

Please return all sixteen (16) slides to us after the lecture.

Thank you for your assistance and cooperation in making this Tele-Lecture series a success. We are truly appreciative of your help.

May 21, 1969

UNIVERSITY EXTENSION

The University of Wisconsin
432 North Lake Street
Madison, Wisconsin 53706

PROBLEMS IN DRUG ABUSE

To: Conference Location Moderator at

From: Jack R. Arndt, Specialist

Re: Attendance Sheets

According to our records as of today, we have not received attendance sheets from your location for the Tele-Lectures which were held on the dates checked below:

___ January 21	___ April 3	___ May 1
___ February 11	___ April 8	___ May 13
___ February 25	___ April 17	___ May 20
___ March 11	___ April 22	___ May 22
___ March 27	___ April 29	___ May 27

It is necessary for us to have this information so that we can certify the attendance of those individuals who request that information.

Please check your files to see if you can locate the missing attendance sheets.

Thank you for your assistance and cooperation.

APPENDIX F

Letters to Registrants

UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
Madison, Wisconsin 53706
Phone 262-3130 (Area Code 608)

PROBLEMS IN DRUG ABUSE

To: Enrollees in Problems in Drug Abuse

From: William L. Blockstein, Health Sciences Unit

This is confirmation of your registration and enrollment in the Tele-Lecture series Problems in Drug Abuse. Your assignment to a conference location is listed on the enclosed sheet. In some cases this location will be different from the one you originally selected, but it was necessary to close some locations because of low enrollments. You will find that the new location is still in your community.

Your assignment to a specific location is permanent for all fifteen lectures. You are urged to attend each lecture yourself; the course is composed of sub-units and is not considered as separate sections. Slides will be available only at the assigned locations; certain handout materials may be sent in packets to the assigned locations in the number of registered students only. The majority of course materials, sent at varying times, will be sent directly to your address. In the event that you cannot attend this course, please notify us in writing of your desire to withdraw

On the evening of each lecture we suggest that you plan to arrive at the conference location about 10 minutes before the start of the lecture to familiarize yourself with the room where the lecture will be heard. Please make sure you have paper and pencil for notes.

Let us remind you once again of the dates. The lectures will be heard from 8:00 to 10:00 p.m. on the following Tuesdays and Thursdays:

Tuesdays	Thursdays
January 21	
February 11 & 25	
March 11	March 27
April 8, 22 & 29	April 3 & 17
May 13, 20 & 27	May 1 & 22

To allow us to know you a little better and to help us make certain that portions of this course meet your objectives, will you please supply the information requested on the enclosed questionnaire and evaluation form. The information you supply will be held in strict confidence — DO NOT SIGN YOUR NAME.

We realize that many of you, because of your training and study in the area of drugs, will find the questions very simple. Otherswill find that they are certain of only a few correct answers. Please complete each item in turn, the best you can.

After you have completed the entire form, return it at your earliest convenience (and no later than January 20, 1969) to: PROBLEMS IN DRUG ABUSE, c/o Jack R. Arndt, Room 741, 432 North Lake Street, Madison, Wisconsin 53706. A pre-addressed, stamped envelope is enclosed for your use.

Thank you for your cooperation.

Conference Location Assignments

Green Bay - St. Vincent's Hospital, 835 S. Van Buren, Doctor's Dining Room

Beauchaine, Earl D. (271)
Bauch, Theodore E. (331)
Boes, Marcella Mae (283)
Clark, Richard F. (374)
Detweiler, Theodore (149)
*Ehrbar, Ernest (
Elizabeth, Sister (247)
Ellis, Robert B. (352)
Freemore, Marion A. (176)
Gilbert, Eugene (333)
Glock, Richard C. (318)
Gilbert, Gladys N. (449)
Gilbert, Thomas N. (446)
Grant, Robert A. (351)
Hanrahan, James A. (379)
Hietpas, William C. (212)
Humphreys, Herbert H. (335)
Jolinda, Sister M. (246)
Jones, Herbert R. (268)
Jones, Elaine E. (269)
Kaster, Mary Rose (5)
Krahn, Margaret (390)
Marybeth, Sister (245)
McDermott, Robert E. (332)
Miller, Mrs., R.N. (183)
Missbach, Karl H. (179)
Mohr, Karl A. (182)
Normann, Mary E. (243)
Reinhard, Norbert J. (350)
Riley, Charles W. (444)
Schwartz, Ralph A. (286)
Valeria, Sister M. (244)
Vanden Avond, Patricia J. (320)
Vanderheyden, William F. (349)
Wilkinson, Gertrude M. (319)
Zei, Paul R. (334)
Zeidel, Robert A. (397)

Green Lake - Courthouse, Basement Hallway

Belke, Wayne H. (26)

Hayward - Courthouse, Area Office

Benson, Janet A. (345)
Quail, Paul H. Jr. (346)
*Hill, Miss Marilyn (

Hazel Green - Hazel Green Hospital, Meeting Room

Antoninus, Sister (129)
Barbara, Sister (125)
Bertrand, Sister Marie (128)
Cecilia, Sister (126)
Dolores, Sister (127)
Juleen, Sister (124)

Hillsboro-

Hurley - Courthouse, Basement

Lepore, Jean A. (414)
*Wilson, Frances E. (22)

*Local Moderator

PROBLEMS IN DRUG ABUSE
1969 Tele-Lecture Series

1. What is your registration number?_____(From your enrollment confirmation slip)

2. At which ETN or SCA location will you be participating?_____
(City)

_____
(Facility)

3. How far is your residence from the ETN or SCA location?_____Miles.

4. What is your age?_____years 5. Sex?_____

6. Are you a student?_____Yes _____No
(To Question 7)

6a. What is your grade in high school or year and major in college_____

_____

7. Check your occupation below:

_____Teacher: Specify subject taught and level_____

_____Physician: Specify type of practice_____

_____Pharmacist: Specify type of employment_____

_____Nurse

_____Lawyer

_____Clergyman

_____Law Enforcement Officer

_____Social Worker

_____Housewife

_____Other: Briefly describe your employment_____

8. Check your highest educational attainment:

_____Completed the eighth grade

_____Attended High School

_____Graduated from High School

_____Attended College: ___1 year: ___2 years: ___3years:

_____Graduated from College: Specify highest degree and major_____

9. Are you receiving any type of formal credit (in-service, professional advancement, etc.) for your participation in Problems in Drug Abuse?

_____No

_____Yes: Please describe briefly_____

10. Column A is a list of commonly abused drugs and chemicals. Column B is a list of body responses to certain drugs. Place the letter of the body response in Column B on the line in front of the number in Column A which describes the general body response to that drug or chemical.

Column A	Column B
_____(1) Marihuana	(A) Stimulation
_____(2) Morphine	(B) Depression
_____(3) Phenobarbital (Luminal)	(C) Hallucinogen
_____(4) Glutethimide (Doriden)	(D) Euphoria
_____(5) Dimethyltryptamine (DMT)	
_____(6) Meprobamate (Miltown)	
_____(7) Amphetamine Sulfate (Benzedrine)	
_____(8) D-Lysergic Acid Diethylamide (LSD)	
_____(9) Mescaline	
____(10) Airplane Glue	

11. Place a check on the line in front of the best answer which completes the following statements. Check only one response for each statement.

11a. "Pot" is the slang term for:

_____LSD. _____Marihuana. _____Mescaline.

11b. "Acid" refers to:

_____ATP _____DMT _____LSD

11c. "Pep Pills" is another name for:

_____Amphetamine Sulfate Tablets. _____Phenobarbital Tablets.

_____Morphine Tablets.

11d. Injection of heroin into the bloodstream ("mainlining") over a long period of time causes:

_____Irreversible liver damage. _____Permanent kidney damage.

_____No physical damage.

11e. The natural source of morphine is:

_____The marihuana plant. _____The poppy plant. _____The belladonna Plant.

11f. The signs and symptoms of barbiturate intoxication are very similar to those of intoxication with:

_____Marihuana. _____Amphetamine Sulfate. _____Alcohol.

11g. In Wisconsin, an adult arrested for selling a narcotic to a minor for the first time could receive a sentence of:

_____Life imprisonment. _____Not less than 20 years and up to life imprisonment

_____Not less than 3 years nor more than 25 years.

11h. Chronic users of marihuana develop:

_____Physical dependence on marihuana. _____Psychological dependence on marihuana.

_____No dependence on marihuana.

11i. Glue-sniffing occurs almost entirely among individuals in the age range of:

_____26 to 35 years. _____16 to 25 years. _____10 to 15 years.

11j. Under the Drug Abuse Control Amendments of 1965, a prescription for a stimulant drug under control is valid for:

_____1 month. _____6 months. _____1 year.

12. Listed below are a number of statements relating to drug abuse. Indicate your reaction to each statement by recording the appropriate number from the following scale to the right of each of the following statements:

1. Strongly Agree	2. Agree	3. Uncertain	4. Disagree	5 Strongly Disagree

12a. All therapeutic drug substances having abuse potential should be strictly controlled by law._____

12b. Laws governing the distribution, manufacture and use of abused substances which have no legitimate medical use (heroin, marihuana, LSD, etc.) should be equally stringent._____

12c. The unrestricted personal use of marihuana should be legal._____

12d. The use of two Aspirin Tablets each night before retiring constitutes abuse of Aspirin._____

12e. The occasional use of drugs and chemicals for non-medical purposes is classified as drug abuse._____

12f. The penalties imposed on the abusers of marihuana should be made more stringent._____

12g. Drug "pushers" actively attempt to entice the uninitiated into using drugs._____

12h. Abusers of hallucinogenic drugs are law breakers and should be treated as criminals._____

12i. Abusers of opiate drugs have an increased sex drive and inclination._____

12j. Drug abusers are generally either in the lower economic class or bizarre personality types._____

12k. Drug abusers are generally known to commit violent crimes._____

12l. Drug abusers are human beings in distress and are entitled to the best help that can be afforded them._____

12m. All drug abusers should be placed under medical care._____

12n. The major function of law enforcement should be aimed at undercutting the illicit traffic in drugs._____

12o. Abrupt withdrawal of drugs from an abuser ("cold turkey") is a reprehensible act of cruelty towards addicts practiced primarily by law enforcement officers._____

UNIVERSITY EXTENSION

The University of Wisconsin
190 Pharmacy Building
Madison, Wisconsin 53706
Phone 262-3130 (Area Code 608)

Extension Services in Pharmacy

To: Enrollees in Problems in Drug Abuse

From: Jack R. Arndt, Specialist

Again we would like to thank you for your participation in the recent Tele-Lecture series, Problems in Drug Abuse. Your interest in the series, as demonstrated by your fine attendance and the many stimulating questions which were asked of the lecturers, certainly helped to make it the success that it was.

We hope that the series will prove to be of benefit to you and that it has served to sharpen your awareness of the drug abuse problem and the role that you can take in local programs of drug abuse education.

You will automatically be receiving one copy of the book, Problems in Drug Abuse. The book will contain a transcription of each of the thirteen lectures which you heard during the series. The book will be mailed to you during the fall.

If you attended ten of the fifteen Tele-Lectures you will find a Certificate of attendance and participation enclosed. Your attendance record was calculated from the number of attendance sheets on which your name appeared.

Also enclosed with this mailing is an evaluation form to help us determine just how well the Tele-Lecture series has met your objectives, and to provide us with information to help us in planning for future Tele-Lecture programs of continuing education in the health sciences. Please complete each item on the evaluation form in turn, the best you can. After you have completed it, return it in the pre-addressed, stamped envelope. We will appreciate your returning the completed evaluation form at your earliest convenience.

Thank you for your cooperation and assistance.

UNIVERSITY EXTENSION

The University of Wisconsin
HEALTH SCIENCES UNIT

This certificate is awarded to

in recognition of attendance and participation in the

Fifteen-week lecture series

PROBLEMS IN DRUG ABUSE

January 21-May 27, 1969

William L Blackstein
Chairman, Health Sciences Unit

Jack R. Arndt
Specialist

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1. Place a check on the line in front of the best answer which completes the following statements. Check only one response for each statement.

1a. "Pot" is the slang term for:

_____LSD. _____Marihuana. _____Mescaline.

1b. "Acid" refers to:

_____ATP. _____DMT. _____LSD.

1c. "Pep Pills" is another name for:

_____Amphetamine Sulfate Tablets. _____Phenobarbital Tablets.

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_____1 month. _____6 months. _____1 year.

2. Listed below are a number of statements relating to drug abuse. Indicate your reaction to each statement by recording the appropriate number from the following scale to the right of each of the following statements:

1 Strongly Agree	2 Agree	3 Uncertain	4 Disagree	5 Strongly Disagree

2a. All therapeutic drug substances having abuse potential should be strictly controlled by law._____

2b. Laws governing the distribution, manufacture and use of abused substances which have no legitimate medical use (heroin, marihuana, LSD, etc.)should be equally stringent._____

2c. The unrestricted personal use of marihuana should be legal._____

2d. The use of two Aspirin Tablets each night before retiring constitutes abuse of Aspirin._____

2e. The occasional use of drugs and chemicals for non-medical purposes is classified as drug abuse._____

2f. The penalties imposed on the abusers of marihuana should be made more stringent._____

2g. Drug "pushers" actively attempt to entice the uninitiated into using drugs._____

2h. Abusers of hallucinogenic drugs are law breakers and should be treated as criminals._____

2i. Abusers of opiate drugs have an increased sex drive and inclination._____

2j. Drug abusers are generally either in the lower economic class or bizarre personality types._____

2k. Drug abusers are generally known to commit violent crimes._____

2l. Drug abusers are human beings in distress and are entitled to the best help that can be afforded them._____

2m. All drug abusers should be placed under medical care._____

2n. The major function of law enforcement should be aimed at undercutting the illicit traffic in drugs._____

2o. Abrupt withdrawal of drugs from an abuser ("cold turkey") is a reprehensible act of cruelty towards addicts practiced primarily by law enforcement officers._____

3. Column A is a list of commonly abused drugs and chemicals. Column B is a list of body responses to certain drugs. Place the letter of the body response in Column B on the line in front of the number in Column A which describes the general body response to that drug or chemical.

Column A	Column B
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_____(3c) Phenobarbital (Luminal)	(C) Hallucinogen
_____(3d) Glutethimide (Doriden)	(D) Euphoria
_____(3e) Dimethyltryptamine (DMT)	
_____(3f) Meprobamate (Miltown)	
_____(3g) Amphetamine Sulfate (Benzedrine)	
_____(3h) D-Lysergic Acid Diethylamide (LSD)	
_____(3i) Mescaline	
_____(3j) Airplane Glue	

4. Listed below are a number of statements relating to the Problems in Drug Abuse Tele-Lecture series. Indicate your reaction to each statement as it applies to the series as a whole by recording the appropriate number from the following scale to the right of each of the statements.

1 Very Satisfied	2 Satisfied	3 Uncertain	4 Dissatisfied	5 Very Dissatisfied

4a. The continuity of the lectures in the series._____

4b. The subject matter content of the series._____

4c. The value of the handout materials to complement the lectures._____

4d. The use of slides to help you understand the material covered in the lectures._____

4e. The audio reception at your conference location._____

4f. The physical facilities at your conference location._____

4g. The effectiveness of the moderator at your location in handling the series and making you feel welcome and part of the group._____

4h. The 8 to 10 p.m. time period._____

4i. The schedule of alternating Tuesdays and Thursdays in varying weeks._____

4j. The practicality and usefulness of the information presented in the lectures._____

4k. The Tele-Lecture technique as a means of continuing education._____

4l. The value of the question and answer session in clarifying certain points in the lecture and providing further information._____

4m. The manner in which the question and answer session was handled._____

4n. The depth of the subject matter presented in the lectures._____

4o. The emphasis on the role of the various disciplines and professions in helping to combat drug abuse._____