

DECREASED DRUG ABUSE WITH TRANSCENDENTAL MEDITATION: A STUDY OF 1,862 SUBJECTS¹

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Drug abuse and drug selling were found to decrease among individuals practicing the Transcendental Meditation technique. Also, attitudes were found to change in the direction of discouraging others from abusing drugs. — EDITORS

The abuse of drugs of all kinds is widespread in the United States, and the extent of abuse, particularly of marihuana and hallucinogenic drugs, is growing (10, 11, 15). It is estimated that in the United States 35 to 50% of high school and college students have tried marihuana at least once, and of these about 35% have tried marihuana more than ten times (10). A conservative estimate of persons in the United States, both juvenile and adult, who have used marihuana is about five million and may be as high as 20 million (11). In surveys of d-lysergic acid diethylamide (LSD) use in college populations, 5% of the students polled admitted to using LSD, with about 30% of the sample being classified as "serious" users and the remaining 70% as "experimenters" (10). Law enforcement agencies report there are approximately 65,000 active "hard" narcotic addicts in the United States. Other estimates indicate that there are 100,000 active narcotic abusers (10). The abuse of amphetamines and barbiturates is widespread but difficult to estimate. College surveys have indicated that more than 20% of the students have abused these drugs (15). Stanley F. Yolles, M.D., Director of the National Institute of Mental Health, summed up the situation as follows:

The spreading of the abuse pattern into unusual and exotic drugs and the involvement of increased numbers of people have serious implications. It seems that today if a chemical can be abused it will be. Further, it appears that stronger and more dangerous drugs tend to displace weaker drugs during this period of excessive preoccupation with mind-altering chemicals. One further identifiable ominous trend is the indulgence in drugs of abuse by younger and younger age groups.

It is to be expected that the use of all sorts of drugs in the next ten years will increase a hundred fold. It is

necessary, therefore, to develop effective processes to control their abuse today. (15)

Few programs or treatments have been reported that reduce drug abuse. One apparently successful program for the rehabilitation of persons abusing narcotics involves the substitution of methadone (2, pp. 255–257; 4). Existing programs for the alleviation of other drug abuse usually involve education concerning the dangerous effects of drugs and sometimes provide personal counseling or psychiatric care (5, 9, 12, 14). The efficacy of these programs has yet to be established.

A preliminary observation suggested that the practice of Transcendental Meditation, as taught by Maharishi Mahesh Yogi, may be effective in alleviation of drug abuse (1). The present report confirms and expands the earlier observation.

METHODS

The technique of Transcendental Meditation is reported to be an easily learned mental technique that originated in the ancient Vedic tradition of India (7, pp. 50–59; 8, pp. 10–17). Practitioners are personally instructed by a teacher qualified by Maharishi Mahesh Yogi. The technique is claimed to be a spontaneous, natural process and, unlike many techniques of meditation or self-improvement, does not employ mental control, physical control, belief, suggestion, or any change in lifestyle. It is also claimed that anyone can learn the technique in four or five instructional sessions. Practitioners are asked to abstain from drug abuse for a 15-day period prior to starting meditation. Following instruction in Transcendental Meditation, the program involves practicing the technique twice a day for periods of 15 to 20 minutes. The program does not provide any type of personal counseling

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TABLE 1
AGE AND SEX OF RESPONDENTS TO QUESTIONNAIRE

SEX	AGE											
	14–18 yrs		19–23 yrs		24–28 yrs		29–38 yrs		39 yrs and older		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%
Male	61	3.3	574	30.8	322	17.3	82	4.4	42	2.3	1081	58.1
Female	71	3.8	363	19.5	167	8.9	81	4.4	99	5.3	781	41.9
Totals	132	7.1	937	50.3	489	26.2	163	8.8	141	7.6	1862	100.0

TABLE 2
EDUCATION EXPERIENCE OF RESPONDENTS TO QUESTIONNAIRE

	LESS THAN HIGH SCHOOL	HIGH SCHOOL GRADUATE	SOME COLLEGE	COLLEGE GRADUATE	ADVANCED DEGREE	TOTALS
Number	100	183	971	460	148	1862
Percent	5.4	9.8	52.2	24.7	7.9	100.0

or advice about personal problems. Individuals practice the technique on their own. The only additional contact between the individual and the instructors or organization is concerned with ensuring correct practice of the technique and providing further knowledge about it.

Questionnaires were given to approximately 1,950 subjects who had been practicing Transcendental Meditation for three months or more and who were attending one of two meditation training courses offered by the Students International Meditation Society* in the summer of 1970. Of these, 1,862 subjects completed the questionnaire, giving information concerning age, sex, educational status, and length of time that Transcendental Meditation had been practiced. Frequency of drug use, drug-selling activity, and attitudes towards drug abuse were assessed for each of five separate time periods: six months before starting meditation, zero to three months after starting, four to nine months after starting, ten to 21 months after starting, and 22 months or more after starting. The separate drugs and categories of drugs included in the questionnaire were (a) marihuana; (b) LSD; (c) other hallucinogens (2,5-dimethyloxy-4-methyl amphetamine [STP], N,N-dimethyltryptamine [DMT], peyote, and mescaline); (d) narcotics (heroin, opium, morphine and cocaine); (e) amphetamines; and (f) barbiturates.

Additional information was requested concerning the frequency of use of "hard liquor" and the number of packs of cigarettes smoked. "Hard liquor" was defined as "alcoholic beverages stronger than wine or beer."

The information on the questionnaires was analyzed on an IBM 360-65 computer. The CROSSTABS† multivariate

data analysis program was utilized, and all processing was done by Urban Data Processing, Inc.‡ The subjects were classified into four categories depending on the frequency of drug use: nonusers, light users, medium users, and heavy users. For the subjects using marihuana, narcotics, amphetamines, barbiturates, "hard liquor," and cigarettes, a "light user" indicated a frequency of three times a month or less; "medium user," once a week to six times a week; and "heavy user," once a day or more. For LSD and other hallucinogens, "light user" indicated a frequency of less than once a month; "medium user," from one to three times a month; and "heavy user," once a week or more.

RESULTS

A total of 1,862 subjects responded to the questionnaire. There were 1,081 male subjects and 781 female subjects (table 1). The age of the subjects ranged from 14 to 78 years, and approximately half of the subjects were between the ages of 19 and 23. Most had attended college and many had college degrees (table 2). The average length of time they had been practicing Transcendental Meditation was approximately 20 months.

Following the start of the practice of Transcendental Meditation, there was a marked decrease in the number of drug abusers for all drug categories (tables 3 to 8). As the practice of meditation continued, the subjects progressively decreased their drug abuse until after practicing 21 months of meditation most subjects had completely

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stopped abusing drugs. For example, in the six-month period before starting the practice of meditation, about 80% of the subjects used marihuana and of those about 28% were heavy users. After practicing Transcendental Meditation for six months, 37% used marihuana and of those only 6.5% were heavy users. After 21 months of the practice, only 12% continued to use marihuana and of those most were light users; only one individual was a heavy user. The decrease in abuse of LSD was even more marked. Before starting the practice of Transcendental Meditation, 48% of the subjects had used LSD, and of these subjects about 14% were heavy users. In the three months following the start of the practice of meditation, 11% of the subjects took LSD, while after 21 months of the practice only 3% took LSD. The increase in the number of nonusers after starting the practice of meditation was similar for the other drugs: nonusers of the other hallucinogens after 21 months of the practice rose from 61 to 96%; for the narcotics from 83 to 99%; for the amphetamines from 70 to 99%; and for the barbiturates from 83 to 99%.

In the six-month period before starting the practice of meditation, 60% of the subjects took "hard liquor" and, of these, about 4% were heavy users (table 9). After 21 months of the practice of meditation, approximately 25% took "hard liquor" and only 0.1% were heavy users. Approximately 48% smoked cigarettes before starting meditation and 27% were heavy users (table 10). After 21 months of practicing meditation, 16% smoked cigarettes and only 5.8% were heavy users.

Most subjects felt that Transcendental Meditation was instrumental in their decreasing or stopping abuse of drugs: 61.1% stated that it was extremely important; 22.8% that it was very important; 12.0% somewhat important; and 3.6% not important. Of those individuals who continued the use of drugs following starting Transcendental Meditation, 55.9% had been irregular in meditation and 24.8% had stopped for a week or more.

Three hundred seventy-four subjects (20.1%) sold drugs before starting meditation. Of these, 71.9% stopped and 12.5% decreased drug selling during the period 0 to 3 months after instruction. Among the subjects who practiced meditation 21 months or longer and who at one time were actively involved in selling drugs, 95.9% stopped selling drugs. In addition, 997 (65.5%) had either encouraged or condoned drug abuse before starting meditation. Over 95% of these subjects discouraged drug abuse in others after beginning the practice of meditation.

DISCUSSION

Individuals who regularly practiced Transcendental Meditation decreased or stopped abusing drugs, decreased or stopped engaging in drug-selling activity, and

changed their attitudes in the direction of discouraging others from abusing drugs. The magnitude of these changes increased with the length of time that the individual practiced the technique. Similar decreases were noted in the use of "hard" alcoholic beverages and cigarette smoking. A high percentage of the individuals who did change their habits felt that Transcendental Meditation was very or extremely important in influencing them to change.

During Transcendental Meditation, oxygen consumption and heart rate significantly decrease, skin resistance significantly increases, and the electroencephalogram shows predominantly slow alpha-wave activity with occasional theta-wave activity (13). Thus, the practice of Transcendental Meditation is physiologically distinguished from sitting quietly with eyes open or closed, from sleeping or dreaming, and from the relaxation or rest suggested by hypnosis. During Transcendental Meditation subjects report that their awareness is spontaneously drawn to "finer" or "more abstract" levels of the thinking process.

There are no simple explanations of the factors that lead to drug abuse. The types of motives that initiate and prolong drug abuse range from such things as social pressure, curiosity, desire for "kicks," rebellion against authority, and escape from social and emotional problems to more philosophical motives such as self-knowledge, creativeness, spiritual enlightenment, or expansion of consciousness (3). Student drug users are, as a group, knowledgeable about the undesirable effects of drug abuse. In general, it is not difficult for most student drug abusers to stop; the problem is to get them to want to stop. For a drug abuse program to be effective it must provide a nonchemical alternative that can fulfill at least some of the basic motivations behind student drug abuse.

Transcendental Meditation is acceptable among youthful drug abusers. It is offered as a program for personal development and is not specifically intended to be a treatment for drug abuse; the alleviation of the problems of drug abuse is merely a side effect of the practice. Thus, it may not threaten the beliefs of the committed abuser who condones the use of drugs. Since the introduction of Transcendental Meditation into the student community five years ago, more than 40,000 individuals have allegedly begun the practice (6). Furthermore, the movement continues to grow. It is presently being presented through campus organizations at some 300 colleges and universities and is offered in the context of an accredited course at several universities.

Involvement in other kinds of self-improvement activities may also lead to decreased drug abuse. The motivation to start meditation may have influenced the subjects to stop drug abuse. The subjects in the present study may have spontaneously stopped, continued, or increased

TABLE 3

USE OF MARIHUANA AND HASHISH BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	417	22.4	47	2.5	39	2.1	18	1.3	1	0.1
Medium	618	33.2	190	10.2	137	7.5	65	4.6	18	2.1
Light	422	22.7	613	32.9	500	27.3	264	18.6	85	10.0
Nonuser	405	21.7	1012	54.4	1154	63.1	1070	75.5	748	87.8
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

TABLE 4

USE OF LSD BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	132	7.1	14	0.7	13	0.7	6	0.4	0	0.0
Medium	301	16.1	60	3.3	36	1.9	23	1.7	3	0.3
Light	467	25.1	159	8.5	151	8.3	72	5.1	23	2.7
Nonuser	962	51.7	1629	87.5	1630	89.1	1316	92.8	826	97.0
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

TABLE 5

USE OF OTHER HALLUCINOGENS BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	5	0.3	4	0.2	5	0.3	3	0.2	0	0.0
Medium	56	3.0	32	1.7	30	1.7	19	1.4	0	0.0
Light	665	35.7	143	7.7	130	7.0	90	6.4	34	4.0
Nonuser	1136	61.0	1683	90.4	1665	91.0	1305	92.0	818	96.0
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

TABLE 6

USE OF NARCOTICS BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	12	0.6	1	0.1	1	0.1	1	0.1	0	0.0
Medium	17	0.9	2	0.2	2	0.2	2	0.2	0	0.0
Light	286	15.4	47	2.5	39	2.1	30	2.1	10	1.2
Nonuser	1547	83.1	1812	97.2	1788	97.6	1384	97.6	842	98.8
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

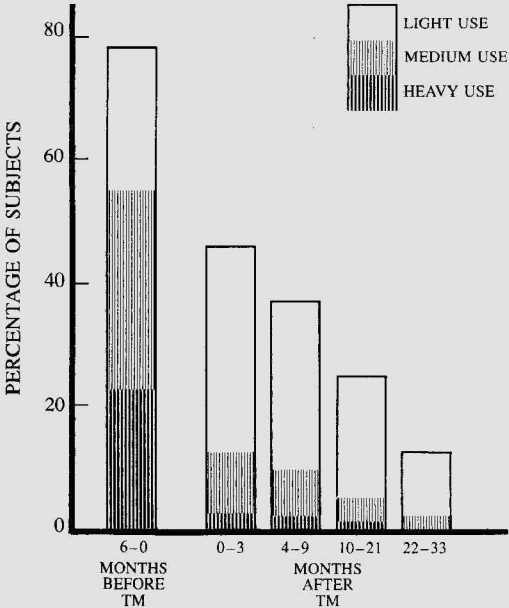


FIG. 1. USE OF MARIHUANA AND HASHISH BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM. [Figures 1-8 in this study were inserted by the editors for illustrative purposes.]

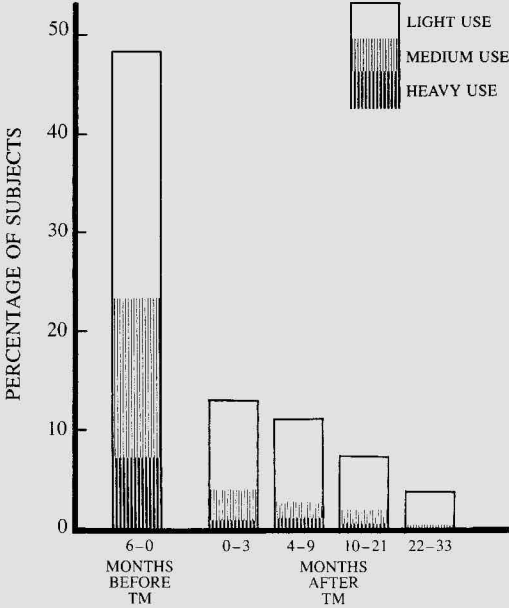


FIG. 2. USE OF LSD BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM.

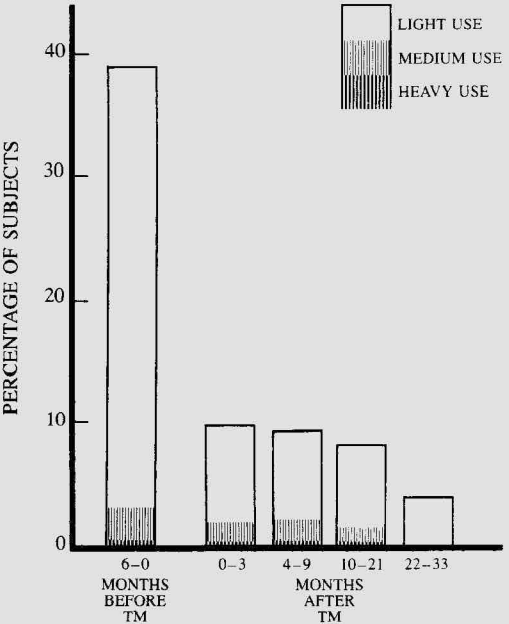


FIG. 3. USE OF OTHER HALLUCINOGENS BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM.

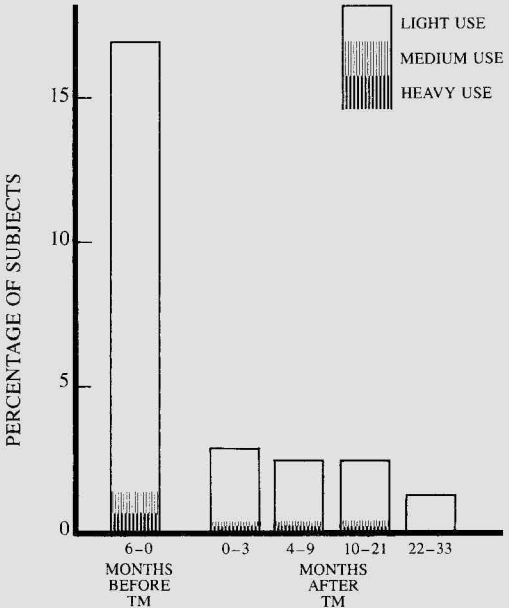


FIG. 4. USE OF NARCOTICS BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM.

TABLE 7

USE OF AMPHETAMINES BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	30	1.6	7	0.4	3	0.2	2	0.1	0	0.0
Medium	96	5.2	11	0.6	9	0.5	2	0.2	0	0.0
Light	470	25.2	104	5.6	79	4.3	49	3.4	10	1.2
Nonuser	1266	68.0	1740	93.4	1739	95.0	1364	96.3	842	98.8
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

TABLE 8

USE OF BARBITURATES BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	19	1.0	1	0.1	3	0.2	1	0.1	0	0.0
Medium	43	2.3	7	0.4	3	0.2	2	0.1	1	0.1
Light	258	13.9	56	2.9	37	2.0	27	1.9	8	1.0
Nonuser	1542	82.8	1798	96.6	1787	97.6	1387	97.9	843	98.9
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

TABLE 9

USE OF "HARD LIQUOR" BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	50	2.7	21	1.2	16	0.9	8	0.6	3	0.4
Medium	295	15.8	149	8.0	100	5.5	52	3.7	22	2.6
Light	770	41.4	646	34.7	551	30.1	365	25.8	187	21.9
Nonuser	747	40.1	1046	56.1	1161	63.5	992	69.9	640	75.1
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

TABLE 10

USE OF CIGARETTES BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

USAGE*	BEFORE		AFTER							
	6-0 mo		0-3 mo		4-9 mo		10-21 mo		22-33 mo	
	N	%	N	%	N	%	N	%	N	%
Heavy	503	27.0	314	16.9	222	12.2	118	8.4	49	5.7
Medium	180	9.7	165	8.9	136	7.4	86	6.0	34	4.0
Light	203	10.9	186	10.0	163	8.9	105	7.4	55	6.4
Nonuser	976	52.4	1197	64.2	1309	71.5	1108	78.2	714	83.9
Totals	1862	100.0	1862	100.0	1830	100.0	1417	100.0	852	100.0

*See text for definition.

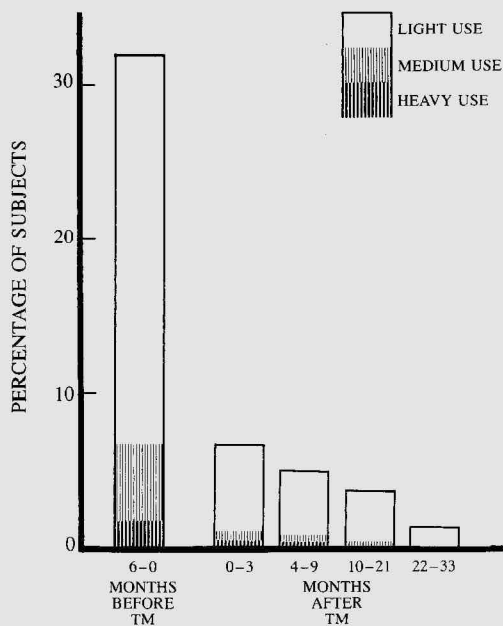


FIG. 5. USE OF AMPHETAMINES BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM.

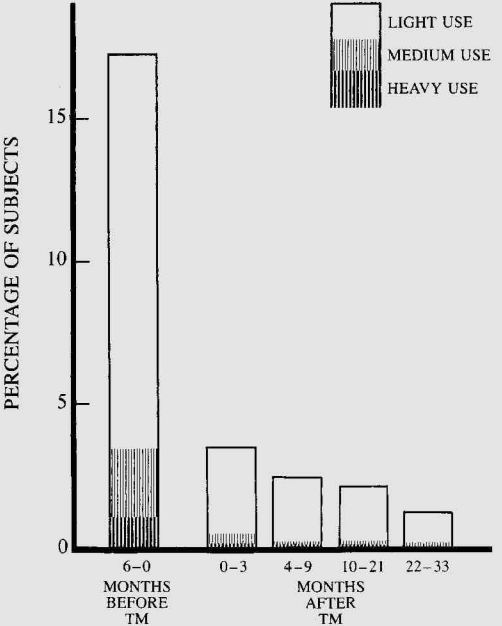


FIG. 6. USE OF BARBITURATES BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM.

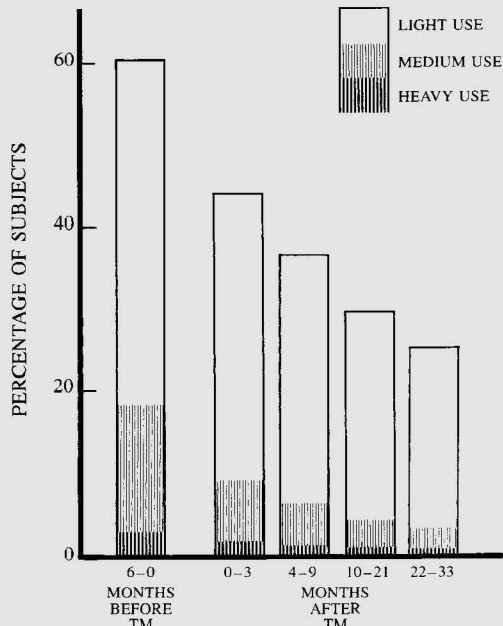


FIG. 7. USE OF "HARD LIQUOR" BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM.

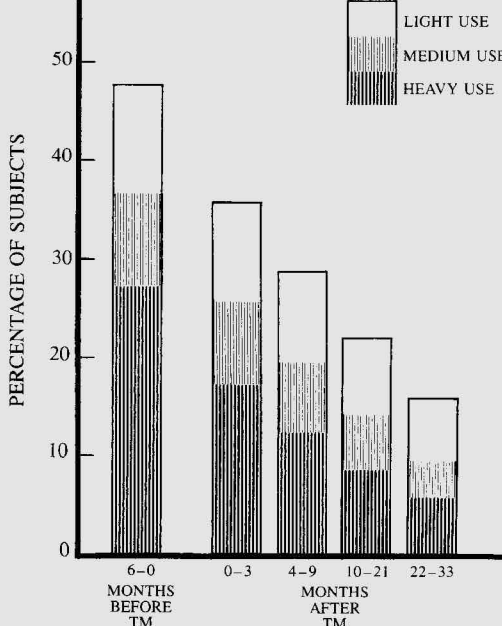


FIG. 8. USE OF CIGARETTES BEFORE AND AFTER SUBJECTS BEGAN THE TRANSCENDENTAL MEDITATION TECHNIQUE. The figure indicates heavy use (thick-lined bars), medium use (thin-lined bars), and light use (open bars) for the six months preceding TM and for 33 months after TM.

taking drugs independently of Transcendental Meditation. However, since there are few effective programs that reduce drug abuse, Transcendental Meditation should be investigated as an alternative to drugs by a controlled, prospective study.

SUMMARY

Drug abuse is widespread and increasing in the United States, especially in student populations. However, few effective programs exist for the alleviation of drug abuse. Transcendental Meditation, a popular and easily learned mental technique that allegedly originated from the ancient Vedic tradition of India, was investigated as a possible means of decreasing drug abuse. Eighteen hundred sixty-two subjects who had practiced Transcendental Meditation for at least three months formed the basis of this study. In these subjects, after starting Transcendental Meditation there was a significant decrease in the amount of drugs used or a discontinuance of drug use; a decrease or cessation in engaging in drug-selling activity; and changed attitudes in the direction of discouraging others from abusing drugs. Further, the subjects decreased their consumption of "hard" alcoholic beverages and smoked fewer cigarettes. The magnitude of these changes increased with the length of time that the subject practiced Transcendental Meditation. Involvement in other types of self-improving activities may also lead to decreased drug abuse. However, since there are few effective programs that decrease drug abuse, Transcendental Meditation should be investigated as an alternative to drugs by a controlled, prospective study.

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REFERENCES

1. BENSON, H. 1969. Yoga for drug abuse. *New England Journal of Medicine* 281: 1133.

2. BYRD, O. E. 1970. *Medical readings on drug abuse*. Reading, Massachusetts: Addison-Wesley.
3. COHEN, A. Y. 1969. Inside what's happening: Sociological, psychological, and spiritual perspectives on the contemporary drug scene. *American Journal of Public Health* 59: 2092–2097.
4. EDDY, N. B. 1970. Methadone maintenance for the management of persons with drug dependence of the morphine type. *Drug Dependence* 3: 17–26.
5. HICKOX, J. R. 1969. Drug abuse education. *Texas Medicine* 65: 31–33.
6. JARVIS, J. Personal communication from the Students International Meditation Society, 1015 Gayley Avenue, Los Angeles, California 90024.
7. MAHARISHI MAHESH YOGI. 1966. *The science of being and art of living*. (Rev. ed.) Los Angeles: International SRM Publications.
8. MAHARISHI MAHESH YOGI. 1969. *Maharishi Mahesh Yogi on the Bhagavad-Gita: A new translation and commentary, Chapters 1–6*. Baltimore, Maryland: Penguin.
9. MURPHY, B. W.; LEVENTHAL, A. M.; and BALTER, M. B. 1969. Drug use on the campus: A survey of university health services and counseling centers. *Journal of American College Health Association* 17: 389–402.
10. NATIONAL INSTITUTE OF MENTAL HEALTH. 1969. *Recent research on narcotics, LSD, marijuana and other dangerous drugs*. National Clearing House for Mental Health Information, United States Department of Health, Education and Welfare. Public Health Service, Health Service and Mental Health Administration. Washington, D.C.: Government Printing Office (PHS Publication No. 1961), pp. 1, 2, 7, 11, 18.
11. NATIONAL INSTITUTE OF MENTAL HEALTH. 1969. *Resource book for drug abuse education*. National Clearing House for Mental Health Information, United States Department of Health, Education and Welfare. Public Health Service, Health Service and Mental Health Administration. Washington, D.C.: Government Printing Office (PHS Publication No. 1964), p. 25.
12. POLLOCK, M. B. 1969. The drug abuse problem: Some implications for health education. *Journal of American College Health Association* 17: 403–411.
13. WALLACE, R. K. 1970. Physiological effects of Transcendental Meditation. *Science* 167: 1751–1754.
14. WIESEN, R. L.; WANG, I. H.; and STENSPER, T. J. 1970. The drug abuse program at Milwaukee County Institutions. *Wisconsin Medical Journal* 69: 141–150.
15. YOLLES, S. F. 1969. Statement of Stanley F. Yolles, M.D., Director, National Institute of Mental Health, before the Subcommittee on Public Health and Welfare of the Interstate and Foreign Commerce Committee on H.R. 11701 and H.R. 13743, looseleaf, pp. 13–16.