This paper examines the behavioral aspects of marijuana use. The focus of the study was to investigate the attitudes and practices toward drugs by users and non-users and the relationship of these attitudes and practices to selected psychosocial factors. A survey instrument in the form of an anonymous questionnaire was developed and administered to a random sample of 164 college students in 1969. Results of the study indicated: (1) there are still numerous unanswerable questions concerning the multiple of variables related to marijuana use; (2) marijuana users cannot be automatically lumped with other drug users; (3) frequency of use may be a significant factor in attitudinal and behavioral variables; (4) the sample one studies may not be valid to generalize from; and (5) in the past few years marijuana has been reaching increasingly younger people who mostly agree that their use will continue. Lastly the author raises a number of legal, medical, psychological, and philosophical questions regarding marijuana use. (Author/WS)
BEHAVIORAL ASPECTS OF MARIJUANA USE

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by

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When I was asked to give a presentation on this topic, I was told it would be in conjunction with an accompanying presentation on the pharmacological effects of Cannabis.

However, as I began to analyze the possible interrelationships between these two areas, it appeared almost impossible to precisely delineate between pharmacological effects and behavior, i.e., the manner in which a person acts, at least for purposes of presentation and without prior discussion with participating speakers.

Therefore, I have chosen to shift the emphasis of my presentation to what might be more correctly referred to as attitudinal and psychosocial aspects of marijuana use.

As a health educator in the City University of New York, I carried out a study on factors related to drug use which resulted in a large number of significant findings in attitudes and practices between drug users and non-users. I subsequently further divided the users into marijuana only users and other drug users, analyzing these groups on selected variables, and it is these findings, among several other studies, I would like to share with you today.

The problem of the study was to investigate the attitudes and practices toward drugs by users and non-users at Queensborough Community College and the relationship of these attitudes and practices to selected psychosocial practices.
A survey instrument in the form of an anonymous questionnaire was developed by the investigator and administered to a random sample of seven classes, 164 students, in 1969. Analysis of the data included the computing of numbers of percentages of responses, and computing chi square values and critical ratios. Of the 62 self identified users, 36 indicated they had used marijuana only and 26 indicated they had used other drugs. Most marijuana users (61 percent) began smoking marijuana in high school; half the other drug users began their use of drugs other than marijuana in high school with the initial source of drugs from both groups being "a friend".

By category, the most frequently used drugs in order of use were: hallucinogens, amphetamines, barbiturates, opiates and tranquilizers. By specific drugs, the five most frequently used, in order of their use were: marijuana (American type), marijuana (hashish), dexedrine, benzedrine, and methedrine.

The first hypothesis tested was that there is no significant difference between marijuana only users and other drug users on the variables of age, cumulative grade index, family income and a measure of self esteem (42). The obtained critical ratios are summarized in Tables 1 and 2.

As can be seen, there is no significant difference for the variables of age, cumulative grade index and family income. However, the critical ratio was significant at .01 for a measure of
self esteem, defined as perception of worth in relation to significant others. The other drug users scored significantly higher on a measure of self esteem than the marijuana only users.

This might suggest that the other drug users are the type of persons who are willing to take more risks, with this subsequently influencing their self esteem as compared to the marijuana only users.

Hogan and Mankin (22, P. 63) suggest that marijuana users, in comparison with non-users, are more socially skilled, have a broader range of interests, are more adventuresome, and more concerned with the feelings of others. Conversely, they are also impulsive and nonconforming.

It might be noted, at this point, that initially the two groups tested were drug users and nonusers. Between these groups the nonusers scored significantly higher (.01) on the measure of self esteem.

In relation to personality factors in marijuana use, Brill (5, p. 165) found there is no support for hypotheses about impaired parental identification, goal-orientation, role of religion, and liking for risks in relation to marijuana use among his sample of young functioning college students. However, his results lend some support to notions that the frequent marijuana-user student tends to be somewhat more hostile or rebellious and tends to seek stimulation. They more often report having long-standing emotional problems and to have less respect for the law. No significant
difference was found between users and nonusers of marijuana in measures of anxiety, depression and ego strength." Comparisons were made between marijuana only users and other drug users on the variables of college major, sex, religious affiliation, health education course in high school, health education course in college, father's occupation, and home atmosphere. For each item, the responses were analyzed using appropriate chi square procedures to determine if there was a significant difference between observed and expected frequencies. The analysis of items is summarized in Table 3. As indicated, the obtained results were not significant for any of the variables.

However, in a publication in The Medical Journal of Australia (48, p. 287) the authors found marijuana users were less likely to have felt that they had congenial relationships with their intimate families. They said they had difficulty making friends.

Initial usage was more likely to have been preceded by an effort to seek out marijuana, and an offer of the drug by a close friend.

The next group of variables in which comparisons were made were: (1) attitudes toward drugs and drug use, (2) reasons for using drugs, (3) association or contact with people who use drugs, (4) self image, (5) motivation to avoid failure, and (6) motivation to achieve success.

Of the 35 items in the section concerning attitudes toward...
drug and drug use, significant chi square values were obtained for six items. It was concluded that there is evidence of a real relationship between marijuana only use and responses to these items. An analysis is summarized in Table 4.

One of the major controversies concerning the drug scene among both lay and professional groups is whether or not marijuana is a "stepping stone" to stronger drugs. In this study, the other drug users disagreed, whereas the marijuana only users were divided. Pertinent to this attitude Brill (5, p. 165) indicates the importance of this answer is quite conceivably linked to the frequency of marijuana use and trial of other drugs, where a marked relationship seems evident.

On the use of LSD, both groups disagreed with significance indicated by the intensity of the attitude.

The use of other drugs such as "ups" and "downs" not being as dangerous as many common health hazards was agreed with by the other drug users, the marijuana only users disagreeing. While the reason for this attitude was not investigated, it does reflect the often repeated statement heard by this investigator that "drugs can't hurt you." One wonders if society's attitude toward drugs as being "something to make you feel better" has contributed significantly to this orientation by the drug user.

In answer to the question "Do you consider marijuana or alcohol the most harmful to use?" both groups indicated alcohol
with the significance stemming from the intensity of the attitude.

In the fifth question, in Table 4, it is interesting to note that if a friend was using a drug, the marijuana only users are equally divided between "doing nothing," indicating passivity, and "attempt to persuade to give up," an action oriented alternative, whereas the other users would do nothing.

Lastly, in this table, although there is significance between the two groups, there is division within the marijuana only group as to whether solving the problem of all night study with a pep pill is an acceptable alternative, whereas, it is acceptable to the other drug user group.

Shean (46, p. 113) reports a study with undergraduate marijuana users about the perceived positive and negative effects of regular marijuana use. Results indicated that drug users scored significantly lower on "Purpose in Life" and there was a tendency for long term effects to be associated with a more passive and experiential life style.

Analysis of items concerning reasons for use of drugs indicates, in Table 5, significant chi square values were obtained for five items. Marijuana only users tended to indicate that they: never used drugs to stimulate them, did not find drugs pleasurable, did not feel the need for a drug when they had not had one for a while, were equally divided on whether a drug was pleasant and relaxing, never used drugs to give themselves a "lift".
On these same items other drug users responded that: they sometimes used drugs to stimulate them, they frequently found drugs pleasurable, they frequently found drugs pleasant and relaxing, they occasionally used drugs to give themselves a "lift".

In retrospect, one wonders if the answers would have been different had additional questions been specific to marijuana only, although drugs were defined as "including marijuana".

Concerning people's motives for using marijuana Brotman and Suffet (6, p. 263) found half of their respondents viewed curiosity as the chief motive for initial use, and a quarter of them saw it as going along with the group. It is noted that 76% continued using the drug for pleasure and to the question "how does it make you feel?" virtually all answers touched on at least one of the themes of relaxation (91%), heightened sensory perception (85%), or sociability (66%). Thus, the individuals in this sample perceived marijuana's effects as direct and pleasure-giving; they were not especially oriented toward more "profound" uses of the drug. The sole "danger" most persons perceived as real was that constant use can lead a person to neglect school or work.

Most of the respondents agreed that a person can become psychologically habituated to marijuana, but did not think the habit was difficult to break.

The predominant attitude toward legal control of marijuana was illustrated by the statement "the law should permit: anyone to use
marijuana (34% agreement); only people above a certain age to use it (58% agreement).

Lastly, most respondents took the position that if a drug is demonstrably harmful, its use should be proscribed by law.

Analysis of items concerning association or contact with people who use marijuana and/or other drugs, Table 6, indicates that the marijuana only users knew less "smokers" out of the five people they knew best, none used drugs in addition to or other than marijuana. The other users knew more people who smoked marijuana and more who used other drugs.

Neither group indicated drug use had affected the health of anyone they knew, nor did they have knowledge of it causing social or legal difficulties. In reference to the former response, King (30, pp. 215 - 216) writes "Belief in the potentially harmful effects of marijuana in a physiological sense is practically non-existent among the marijuana smokers. Only eight users (6%) felt there were physiological dangers associated with such smoking. --- Both groups, however, view marijuana as possessing more potential danger psychologically."

Of six items concerning self image the obtained chi square value for only one was significant. In this item which asked, "If you did not care for the activity in which your friends were involved, what would you do?", the obtained chi square of 11.53 with 4 degrees of freedom was significant at .05. Marijuana only users tended toward varied responses i.e. participate with them /
and say nothing, participate with them and act as if you were enjoying yourself, participate but indicate you didn't care for the activity, with the other users tending toward "remain, but refuse to participate." Although the marijuana only responses were varied the trend appeared to indicate these respondents were not as likely to risk behavior that was not predominant within the group. This suggests a possible correlation to the earlier finding of lower self esteem among the marijuana only group.

The strengths of motives to attain success and avoid failure were inferred from attitudes toward success and failure as indicated by a true - false inventory (38).

The primary score obtained on the success - failure inventory was the difference in the number of items answered in a way indicative of a motivation to achieve success or to avoid failure. As indicated in Table 7, the critical ratio, .84, was not significant. It was concluded that there is no significant difference between marijuana only users and other users in their motivation to avoid failure as contrasted with motivation to attain success.

Suchman (50) refers to the "hang-loose" ethic as opposed to the "Protestant ethic" and hypothesizes that the more the student embraces the former, the more frequently he will use drugs. He states "drug use is more likely to be reported by those students who are relatively antagonistic to the educational system and who are dissatisfied with the education they are receiving." (50, p.150).
Additionally, the student who reports that he expects to get the most satisfaction out of life by means of his leisure time recreational activities is a much more frequent user of marijuana than the student who values participation in civic affairs or family relations.

In reference to personality correlates, the more the student's self-image tends to be rebellious, cynical, antieestablishment, "hippie," and apathetic, the more likely is he to smoke marijuana. Conversely, the more his self image tends to be conformist, well-behaved, moral, and "square," the less likely is he to make use of marijuana. (50, p. 151).

In conclusion, although there are still numerous unanswered questions concerning the multitude of variables related to marijuana use, it does appear some facts are becoming increasingly clear. One is that marijuana users cannot be "lumped" automatically with other drug users; secondly, frequency of use may be a significant factor in attitudinal and behavioral variables; thirdly the sample one studies may be such that it is not valid to generalize, even though many samples may have some traits in common, and lastly mounting evidence indicates that in the past few years marijuana has been reaching increasingly younger persons with most users agreeing their use will continue.

This is the "recreational" drug of choice for an increasing number of persons. Drug use, including alcohol, can be called
what a colleague of mine refers to as the "disease of pleasure". And it, therefore, is not something we are likely to talk people out of. Therefore, from an educational viewpoint, we have to provide an acceptable alternative. I must admit, I don't have the answer, but it might involve learning how to get high on life.

The use of marijuana raises a number of legal, medical, psychological and perhaps most basic, philosophical issues. Among them: (1) Is it that we are unable to develop an acceptable self-image and hence accept as desirable a drug which enables us to artificially and temporarily achieve such? (2) Is it worth the risk to let some unknown side of one's nature take command? (3) Is it worth the risk in terms of possible physical, psychic or social consequences which may occur? (4) Is a pharmacologically induced fantasy a positive substitute for a real, if unsatisfactory, perception? (5) And lastly, does society want to make drugs available which, in themselves, may modify individual value systems?
BIBLIOGRAPHY

(Current journal articles relating to psychosocial aspects of Marijuana use)


Books


57. Ibid., Students and Drugs.


### TABLE 1. DIFFERENCES BETWEEN THE MEANS OF MARIJUANA ONLY AND OTHER DRUG USERS ON THE VARIABLES OF CUMULATIVE GRADE INDEX, AGE, AND A MEASURE OF SELF ESTEEM

<table>
<thead>
<tr>
<th>Cum. Grade Index</th>
<th>Age</th>
<th>Measure of S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mari. Only</strong></td>
<td><strong>Mari. Other</strong></td>
<td><strong>Other</strong></td>
</tr>
<tr>
<td>N 35</td>
<td>26</td>
<td>34</td>
</tr>
<tr>
<td>M 1.968</td>
<td>2.086</td>
<td>18.706</td>
</tr>
<tr>
<td>SD .539</td>
<td>.731</td>
<td>1.544</td>
</tr>
<tr>
<td>DM .167</td>
<td>.123</td>
<td></td>
</tr>
<tr>
<td>σDM .118</td>
<td>.343</td>
<td></td>
</tr>
<tr>
<td>CR -.706</td>
<td>-.358</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at .01
Cum. = Cumulative
Mari. = Marijuana
S.E. = Self Esteem

### TABLE 2. DIFFERENCES BETWEEN THE MEDIAN FAMILY INCOME OF MARIJUANA ONLY USERS AND OTHER DRUG USERS

<table>
<thead>
<tr>
<th>Marijuana only</th>
<th>Other drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 36</td>
<td>22</td>
</tr>
<tr>
<td>Mdn. 10,000</td>
<td>12,000</td>
</tr>
<tr>
<td>σMdn. 805</td>
<td>912</td>
</tr>
<tr>
<td>DMdn.</td>
<td>2,000</td>
</tr>
<tr>
<td>σDMdn. 1,216</td>
<td></td>
</tr>
<tr>
<td>CR 1.64</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>College major</td>
<td>7.59</td>
</tr>
<tr>
<td>Sex</td>
<td>0.77</td>
</tr>
<tr>
<td>Religious affiliation</td>
<td>4.22</td>
</tr>
<tr>
<td>Health education course in high school</td>
<td>1.67</td>
</tr>
<tr>
<td>Health education course in college</td>
<td>0.54</td>
</tr>
<tr>
<td>Father's occupation</td>
<td>2.51</td>
</tr>
<tr>
<td>Home atmosphere</td>
<td>0.19</td>
</tr>
</tbody>
</table>
TABLE 4. ANALYSIS OF ITEMS CONCERNING DIFFERENCES BETWEEN MARIJUANA USERS ONLY AND OTHER DRUG USERS IN ATTITUDES TOWARD DRUGS AND DRUG USE

<table>
<thead>
<tr>
<th>Item</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Sig.</th>
<th>Marijuana only</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana is frequently a &quot;stepping stone&quot; to stronger drugs.</td>
<td>6.01</td>
<td>2</td>
<td>.05</td>
<td>Divided</td>
<td>Disagree</td>
</tr>
<tr>
<td>The use of LSD could be beneficial to most persons.</td>
<td>12.89</td>
<td>2</td>
<td>.01</td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>The use of drugs such as amphetamines (ups) and barbiturates (downs) is not as dangerous as many common health hazards.</td>
<td>8.15</td>
<td>2</td>
<td>.05</td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>Do you consider marijuana or alcohol the most harmful to use?</td>
<td>9.97</td>
<td>3</td>
<td>.05</td>
<td>Alcohol</td>
<td>Nothing</td>
</tr>
<tr>
<td>If a friend of yours told you he (she) was using a drug, what would you do?</td>
<td>12.62</td>
<td>2</td>
<td>.05</td>
<td>to give up (E.D.)</td>
<td>Nothing, Persuade</td>
</tr>
<tr>
<td>You are behind in your studies and feel you cannot succeed without all night study. A friend has a pep pill that he will give you. Do you feel there is anything wrong with solving a problem of this nature with a drug?</td>
<td>8.36</td>
<td>2</td>
<td>.05</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Sig. = Significance
E.D. = Equally Divided
TABLE 5. ANALYSIS OF ITEMS CONCERNING REASONS OF MARIJUANA ONLY USERS AND OTHER DRUG USERS FOR USING DRUGS

<table>
<thead>
<tr>
<th>Item</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Sig.</th>
<th>Marijuana only</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use drugs to stimulate me.</td>
<td>9.29</td>
<td>3</td>
<td>.05</td>
<td>Never</td>
<td>Varied</td>
</tr>
<tr>
<td>I find drugs pleasurable.</td>
<td>8.93</td>
<td>3</td>
<td>.05</td>
<td>Never</td>
<td>Freq.</td>
</tr>
<tr>
<td>When I feel &quot;blue&quot; or want to take my mind off problems, I use a drug.</td>
<td>6.01</td>
<td>3</td>
<td>N.S.</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>I use drugs automatically without even being aware of it.</td>
<td>3.78</td>
<td>2</td>
<td>N.S.</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>I feel the need for a drug when I haven't had one for awhile.</td>
<td>13.21</td>
<td>3</td>
<td>.01</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>Using a drug is pleasant and relaxing.</td>
<td>7.88</td>
<td>3</td>
<td>.05</td>
<td>Freq.</td>
<td>Freq.</td>
</tr>
<tr>
<td>I do not feel contented for long unless I am using a drug.</td>
<td>4.42</td>
<td>2</td>
<td>N.S.</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>I use drugs to give me a &quot;lift&quot;.</td>
<td>8.41</td>
<td>3</td>
<td>.05</td>
<td>Never</td>
<td>Occasionally</td>
</tr>
</tbody>
</table>

Sig. = Significance
Freq. = Frequently
### TABLE 6. ANALYSIS OF ITEMS CONCERNING ASSOCIATION OR CONTACT OF MARIJUANA ONLY USERS AND OTHER DRUG USERS WITH PEOPLE WHO USE DRUGS

<table>
<thead>
<tr>
<th>Item</th>
<th>Marijuana</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Sig. only</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of the five people you know best, how many smoke marijuana at present?</td>
<td>Varied response</td>
<td>13.92</td>
<td>5</td>
<td>.05 ses</td>
<td>4-5</td>
</tr>
<tr>
<td>Out of the five people you know best, how many use drugs in addition to or other than marijuana?</td>
<td>Varied response</td>
<td>12.79</td>
<td>5</td>
<td>.05 None</td>
<td>ses</td>
</tr>
<tr>
<td>Has smoking marijuana or taking drugs affected the health of anyone you know other than yourself?</td>
<td>1.57</td>
<td>1</td>
<td>N.S.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Has smoking marijuana or taking drugs caused anyone you know to become involved in social or legal difficulties?</td>
<td>.31</td>
<td>1</td>
<td>N.S.</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Sig. = Significance
TABLE 7. DIFFERENCES BETWEEN THE MEANS OF THE D SCORES OF MARIJUANA ONLY AND OTHER DRUG USERS ON THE SUCCESS-FAILURE INVENTORY

<table>
<thead>
<tr>
<th></th>
<th>Marijuana only</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>36</td>
<td>26</td>
</tr>
<tr>
<td>M</td>
<td>4</td>
<td>-3.38</td>
</tr>
<tr>
<td>SD</td>
<td>3.2</td>
<td>2.62</td>
</tr>
<tr>
<td>DM</td>
<td>.62</td>
<td></td>
</tr>
<tr>
<td>σDM</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>.84</td>
<td></td>
</tr>
</tbody>
</table>