dent in this regard, this is not generally the case. Pattison and colleagues (1968) noted that, at that time, the general public essentially saw the addict as less responsible for his behavior. So too, Baker and Isaac (1970) reported that their respondents (visiting nurses, law students, and policemen) tended to view drug-abuse as a both physical and mental illness and to be generally non-rejecting. Saverov and his associates (in press) report that staff and patients appear to be in "considerable agreement" in their attitudes toward drug-abuse and the drug-abuser! Forman and Gertler (in press) speak of the "general negative attitude toward drug-abuse and the abuser" manifested in their population of first-year psychiatric residents. But there seems to have been no attention whatsoever paid to the attitudes of the college student in this area. We here present a start beginning of a remedying of this deficiency.

METHOD

The instrument we utilized in this assessment was a modified (for drug-abuse) version of "The Alcoholism Questionnaire", which was developed by Marcus (1963a) as the outcome of a factor analytic study. It consists of 40 statements to which the subject responds by checking a position on a scale extending from 1 to 7 (in which scale, 7 represents complete agreement). The device takes approximately 20 minutes to complete.

Scoring yields nine mean factor scores (MF5). The factors are defined in Table 1. A high score on factors 1, 2, 4, and 9 indicates a "positive" attitude; on factors 3, 5, 6, 7, and 8 a high score indicates a "negative" attitude.

Insert Table 1 about here
A study of student attitudes toward drug abuse and the drug abuser was conducted, using a modified version of Marcus's "Alcoholism Questionnaire." One hundred twenty-two college students participated. Mean factor scores (MFS) were developed for the nine factors tested. Marcus's "safe operating criterion" (ignore MFS differences that are less than 0.50 and pay particular attention to those greater than 1.00) was used in analyzing results. MFS for this group were compared with those of 2 other groups--120 heroin addicts in a methadone treatment program and 35 college students. The MFS differences between the student and addict groups were below 0.50 on four factors and between 0.50 and 1.00 on the remaining five. On these five factors, it appears that students are more likely to believe that addicts do and can be helped to recover and are more likely to see addiction as an illness. Addicts are more willing than students to believe that periodic excessive drug users can be addicts. The results of this survey were compared with the results of a similar survey of student attitudes toward alcoholism and the alcoholic. The MFS differences were below 0.50 on 7 factors and below 1.00 on the other two. It was concluded that students are ambivalent in their views of drug abuse and alcoholism; they say that both are illnesses but are undecided about the issues of control and character defect. Therefore it was concluded that we are failing in our education of youth in these areas. A bibliography is provided. (For related documents, see TM 002 332, 333.)
There are many parallels between the areas of alcoholism and drug abuse. One of these is in regard to attitudes toward the particular area. More and more investigations of attitudes regarding alcoholism are being reported, as awareness of the importance of this variable increases, for example, the treatment of alcoholism is heightened. Perhaps consonant with this trend is the fact that many of the studies are concerned with the attitudes of professionals towards alcoholism and alcoholics. Almost the entire remainder of this body of literature deals with the attitudes of the general public concerning alcoholism. Only the former group of studies includes any significant concern with students: e.g., medical students (Chodorkoff, 1967), and student nurses (Ferneau, 1967; Chodorkoff, 1969). This may be a manifestation of a belief that only professionals are involved in the treatment of alcoholism. Inasmuch as more paraprofessionals are probably involved in drug-abuse treatment, this should be reflected in the context of investigation of attitudes toward drug-abuse. It was somewhat surprising recently to find that only one study has even been concerned with the attitudes of general college students vis-à-vis alcoholism (Freed, 1964) - and this was part of a broader assessment. Freed utilized the "attitude towards disabled persons" scale, and reported the global finding that the students appeared to possess a general non-acceptance of those suffering from alcoholism.

Our own study (Mueller and Ferneau, 1971) found student respondents to be as ambivalent and as conflicted as the general population regarding alcoholism and alcoholics - while the content of the conflict is probably different. While similarly more attitudes - toward drug-abuse studies are being reported, and while we might, for several reasons, expect more attention to be paid to the stu-

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   Westfield, Mass. 01085 U.S.A.
dent in this regard, this is not generally the case. Pattison and colleagues (1968) noted that, at that time, the general public essentially saw the addict as less responsible for his behavior. So too Baker and Isacks (1970) reported that their respondents (visiting nurses, law students, and policemen) tended to view drug-abuse as a both physical and mental illness and to be generally non-rejecting. Saverou and his associates (in press) report that staff and patients appear to be in "considerable agreement" in their attitudes toward drug-abuse and the drug-abuser! Pernecky and Gertler (in press) speak of the "general negative attitude toward drug-abuse and the abuser" manifested in their population of first-year psychiatric residents. But there seems to have been no attention whatsoever paid to the attitudes of the college student in this area. We here present a first beginning of a remedying of this deficiency.

**METHOD**

The instrument we utilized in this assessment was a modified (for drug-abuse) version of "The Alcoholism Questionnaire", which was developed by Marcus (1963a) as the outcome of a factor analytic study. It consists of 40 statements to which the subject responds by checking a position on a scale extending from 1 to 7 (in which scale, 7 represents complete agreement). The device takes approximately 20 minutes to complete.

Scoring yields nine mean factor scores (123). The factors are defined in Table 1. A high score on factors 1, 2, 4, and 9 indicates a "positive" attitude; on factors 3, 5, 6, 7, and 8 a high score indicates a "negative" attitude.

Insert Table 1 about here
Marcus (1963a, p. 9) recommends that, until more information is available regarding the variability of factor scores, the following "safe operating criterion" be adopted: "One should ignore mean factor score differences that are less than 0.50 and pay particular attention to those that are greater than 1.00." This tactic will be employed here.

One hundred twenty-two students - primarily juniors enrolled in psychology courses - participated in this survey, which was conducted at the beginning of the academic year. The male-female ratio was approximately one to five. The subjects were instructed not to sign the questionnaire, which was group-administered (without discussion). We utilized the administration format prescribed by Marcus (1963a) and his suggested pretested instructions (1963a, appendix B).

RESULTS

The nine mean factor scores for our group of respondents were computed and were compared with two other groups. The first comparison group was that composed of 120 heroin addicts in a methadone treatment program (Saverow et al., in press), and 35 students from the same institution (Mueller and Ferneau, 1971) as those in the survey reported here.

Students vs. Addicts.

As can be seen in Table 2, the difference between our student group's MFS and the addict group's MFS was less than 0.50 on no less than four factors (nos. 1, 2, 5, and 9). This quite possibly indicates that the attitudes of the two groups are rather similar in these factor areas.

Thus, we believe that we can say that our respondent group believes to the same extent as does the addict group that emotional difficulties or psychological
problems are an important contributing factor in the development of addiction (factor 1), the addict is unable to control his using of drugs (factor 2); that the addict is a weak-willed person (factor 5); and that drugs are addicting substances (factor 9). However, in view of Nozick's "safe operating criterion", we will not further examine the ITS differences on these factors.

The remaining five (3, 4, 6, 7, and 8) reflected ITS differences of more than 0.50 but less than 1.00. The difference on factors 3, 6, 7, and 8 was, for the student group, in the more positive direction. On factor 3 (prognosis for recovery), the student group's ITS was 2.61, while the ITS for the addict group was 3.58 a difference of .97. We see this as meaning that the students are more likely than the addicts to believe that most addicts do and can be helped to recover from addiction. The student group's ITS on factor 6 (social status) was 3.12; that of the addict group, 3.71. The difference is 0.59, and this would then appear to indicate that addicts are more prone than the students to identify addicts as coming from only the lower socio-economic strata of society.

On factor 7 — addiction quoad illness — the difference between the two groups was 0.64. The ITS for the addict group was 3.59; while for the student group, it was 2.95. Here, students seem more likely to see addiction as an illness than do addicts.

On the remaining factor (factor 8 — harmless voluntary indulgence), the student group's ITS was 2.76, while the addict ITS was 3.57 — a difference of 0.81. We interpret this as indicating that the students are less likely than the addicts to believe that the addict is a harmless heavy drug-user whose using of drugs is motivated only by his fondness for drugs.

On factor 4 (steady use), however, the ITS difference was, for the student group, in a more negative direction. Here the student ITS was 3.75 while the add-
Students: Drug-Abuse and Alcoholism

Here we will compare the attitudes of students toward drug-abuse and the abuser, as reported here, and those of students toward alcoholism and the alcoholic (Steele and Farnan, 1971). The difference between the mean factor scores for these two groups was less than 0.50 on seven factors (1, 2, 4, 5, 6, 7, and 8). This certainly seems to us to indicate that the student tends to view the two pathologies in essentially the same way.

Thus, it would seem that the student sees emotional difficulties as equally important in both drug-abuse and alcoholism (factor 1), that both types of patients are unable to control their aberrant behavior (factor 2), that both have to be continual and excessive in their use to be classified as abusers (factor 4), that neither is weak-willed (factor 5), that neither has to come only from lower social strata (factor 6), that both are illnesses (factor 7), and that neither is a harmless voluntary indulgence (factor 8).

On the two remaining factors, the IFS difference was greater than 0.50 but less than 1.00. On factor 3 (prognosis for recovery), the student IFS in the drug-abuse area was 2.61; while in the alcoholism area, it was 2.03 a difference of .58. This would seem to indicate that the students apparently believe that alcoholic's have a better prognosis than drug-addicts.

On factor 9 (substance as addiction producing), the IFS with regard to drug-abuse was 4.52; in the alcoholism area, it was 3.93. The difference then was 0.59 — and in a direction that would seem to indicate that the students see the drugs of abuse as more highly addicting substances than alcohol.


DISCUSSION

Both the students and the addicts see them to be equally conflicted regarding the importance of an emotional factor in the etiology of addiction, or whether the addict is able to control his drug-use, or if the addict is a weak-willed person, or if drugs are addicting substances!!! Nevertheless, students seem more willing than the addict to see a favorable prognosis for the addict, and to say that addiction is not found just in a lower socio-economic setting, and to see addiction as an illness.

It is not surprising, of course, that the addict sees a less favorable outcome for his problem than does the student, nor is it surprising that addicts are also more likely than students to see addiction as a harmless voluntary indulgence. These two positions, of course, also represent another point of conflict for the addict. But for the students to say, for example on one hand, that addiction is an illness, and then also, on the other to be undecided regarding the issues of control and character defect——this represents their point of conflict.

While the addict is more undecided as to whether periodic excessive use is a mark of addiction, the students are more apt to believe that an addict has to be a continual, excessive user. Both stances seem defensive—the students more so.

The students also appear to view alcoholism and drug-abuse in an equally ambivalent fashion. They seem equally unable to attribute or deny the importance of an emotional etiology in either pathology, to say that the alcoholic or drug-abusers can or cannot control his behavior, to view either as possessing a character defect, or to see periodic excessive use as a mark of the pathology. While they similarly seem equally unwilling to say that either is or is not an illness, the students do tend to say that both are. The students also appear equally ambivalent regarding the societal locus of both pathologies, but tend somewhat not to attribute either
merely to the lower class. Finally, they are quite unwilling, to the same degree for each, to view either pathology as just a harmless, voluntary indulgence.

The students do seem more willing to view alcoholics as having a better prognosis than drug-abusers, and to be ambivalent about just how addicting the substances really are - but tend to be less likely to say that alcohol possesses addictive properties. It seems then only fair to conclude that the data suggest that we are failing rather miserably in our education of youth in these areas. Further, we seem to be equally failing in both the areas: drug-abuse and alcoholism, but failing in different ways. Yet we are also failing in similar ways - on the most elementary of issues: for example, the addictiveness nor go of these substances.

While it is clearly suggested that programs be initiated or intensified, the programs probably also have to be combined - dealing with both alcohol and other drugs, but also having their separate emphases as appropriate.
# TABLE 1

## FACTOR DEFINITIONS

<table>
<thead>
<tr>
<th>Factor</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emotional difficulties</td>
<td>A high score indicates the belief that emotional difficulties or psychological problems are an important contributing factor in the development of addiction.</td>
</tr>
<tr>
<td>2. Loss of Control</td>
<td>A high score indicates the belief that the addict is unable to control his using of drugs.</td>
</tr>
<tr>
<td>3. Prognosis for recovery</td>
<td>A high score indicates the belief that most addicts not, and cannot be helped to recover from addiction.</td>
</tr>
<tr>
<td>4. The addict as a steady user</td>
<td>A high score indicates the belief that periodic excessive drug-users can be addicts. A low score indicates the belief that a person must be a continual excessive drug-user in order to be classified as an addict.</td>
</tr>
<tr>
<td>5. Drug-abuse and character defect</td>
<td>A high score indicates the belief that the addict is weak-willed person.</td>
</tr>
<tr>
<td>6. Social Status of the addict</td>
<td>A high score indicates the belief that addicts come from the lower socio-economic strata of society.</td>
</tr>
<tr>
<td>7. Addiction is an illness</td>
<td>A high score indicates the belief that addiction is not an illness.</td>
</tr>
<tr>
<td>8. Harmless voluntary indulgence</td>
<td>A high score indicates the belief that the addict is a harmless heavy drug-user whose using of drugs is motivated only by his fondness for drugs.</td>
</tr>
<tr>
<td>9. Drugs addiction producing</td>
<td>A high score indicates the belief that drugs are highly addicting substances.</td>
</tr>
</tbody>
</table>

*With reference to drug addiction, substitute "drugs" for "alcohol", "addict" for "alcoholic", "addiction" for "alcoholism", and "using drugs" for "drinking".*
### TABLE 2

**COMPARISON OF MEAN FACTOR SCORES OF THE ADDICT AND THE NORM GROUPS**

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>SCORE INDICATING POSITIVE ATTITUDE</th>
<th>ADDICTS ABOUT ADDICTS</th>
<th>STUDENTS ABOUT ADDICTS</th>
<th>STUDENTS ABOUT ALCOHOLICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>high</td>
<td>4.62</td>
<td>4.92</td>
<td>5.13</td>
</tr>
<tr>
<td>2</td>
<td>high</td>
<td>4.04</td>
<td>4.19</td>
<td>4.02</td>
</tr>
<tr>
<td>3</td>
<td>low</td>
<td>3.58</td>
<td>2.61</td>
<td>2.08</td>
</tr>
<tr>
<td>4</td>
<td>high</td>
<td>4.39</td>
<td>3.78</td>
<td>3.54</td>
</tr>
<tr>
<td>5</td>
<td>low</td>
<td>3.62</td>
<td>3.60</td>
<td>3.65</td>
</tr>
<tr>
<td>6</td>
<td>low</td>
<td>3.71</td>
<td>3.12</td>
<td>3.10</td>
</tr>
<tr>
<td>7</td>
<td>low</td>
<td>3.59</td>
<td>2.95</td>
<td>3.17</td>
</tr>
<tr>
<td>8</td>
<td>low</td>
<td>3.57</td>
<td>2.76</td>
<td>2.52</td>
</tr>
<tr>
<td>9</td>
<td>high</td>
<td>4.84</td>
<td>4.52</td>
<td>3.93</td>
</tr>
</tbody>
</table>
REFERENCES


Chodorkoff, E. Alcoholism education in a psychiatric institute. I. Medical Students: Relationship of personal characteristics, attitudes toward alcoholism and achievement. Quarterly Journal of Studies on Alcohol. 1967, 22, 723-730


Ferneau, E. What student nurses think about alcoholic patients and alcoholism. Nursing Outlook, 1967, 15, 40-41


______. Strucrure of popular beliefs about alcoholism. Toronto, Canada: Alcohol and Drug Addiction Research Foundation, 1963b. (Mimeographed)


On the following pages you will find a number of statements about alcoholism. We want to know how much you agree or disagree with each of the statements. To the right of each statement you can find a rating scale:

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

The points along the scale (1, 2, 3,......7) can be interpreted as follows:

1. Completely disagree
2. Mostly disagree
3. Disagree more than agree
4. Neutral
5. Agree more than disagree
6. Mostly agree
7. Completely agree

The use of the scale can be illustrated with the following statement:

"There are very few female alcoholics".

If you agreed completely with this statement, you would place a mark in column 7.
If you agreed slightly with the statement, you would place a mark in column 5.
If you mostly disagreed with the statement, you would place a mark in column 2.
In this manner you can indicate the extent to which you agree or disagree with each of the statements on the following pages.
Like everyone else, you will probably feel that you do not know the answer to some of the statements. When this occurs, please make the best guess you can.
Please make your marks inside the agreement or disagreement boxes of the scales. Do it like this:

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Do not do it like this:

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Please make sure that you make a mark for each statement. Leave none of the statements blank and make only one mark for each. You should not spend more than a few seconds marking each statement. If it is difficult for you to make up your mind, make the best guess that you can and go on to the next one.
1. A person who often drinks to the point of drunkenness is almost always an alcoholic.  

2. People who become alcoholics are usually lacking in will power.  

3. Most alcoholics have no desire to stop drinking.  

4. The average alcoholic is usually unemployed.  

5. A person can inherit a weakness for alcohol.  

6. The alcoholic is helpless to control the amount of alcohol he drinks.  

7. Alcoholics usually have severe emotional difficulties.  

8. Alcoholism is best described as a habit rather than an illness.  

9. The alcoholic drinks excessively mainly because he enjoys drinking.  

10. An alcoholic can get into as much trouble by drinking beer as by drinking liquor.  

11. A person who frequently stays intoxicated for several days at a time is unquestionably an alcoholic.  

12. The alcoholic is seldom helped by any sort of medical or psychological treatment.  

13. The alcoholic has only himself to blame for his problem.  

14. Alcoholics, on the average, have a poorer education than other people.
15. Alcoholics seldom harm anybody but themselves.

16. Hardly any alcoholics could drink less even if they wanted to.

17. The most sensible way to deal with alcoholics is to compel them to go somewhere for treatment.

18. The alcoholic is a morally weak person.

19. An alcoholic's basic troubles were with him long before he had a problem with alcohol.

20. Once a person becomes an alcoholic, he can never learn to drink moderately again.

21. The harm done by alcoholics is generally overestimated.

22. Very few alcoholics come from families in which both parents were abstainers.

23. Even if an alcoholic has a sincere desire to stop drinking, he cannot possibly do so without help from others.

24. Nobody who drinks is immune from alcoholism.

25. Even if a heavy drinker is able to stop drinking for several weeks at a time, he may still be an alcoholic.

26. Alcoholism is a sign of character weakness.

27. Alcoholism never comes about very suddenly.
28. Unhappy marriages and other unpleasant family situations often lead to alcoholism.

29. Alcoholism is not a disease.

30. Most alcoholics could not be rehabilitated even if more help were available for them.

31. Alcoholics are seldom found in important positions in business.

32. Preferring to drink alone rather than with friends is a sign of alcoholism.

33. Alcoholics are usually in good physical health.

34. The alcoholic is basically a spineless person who has found an easy way out of his problems.

35. Some people who drink heavily, but only on weekends, are alcoholics.

36. An alcoholic usually has something in his past which is driving him to drink.

37. Most alcoholics are completely unconcerned about their problem.

38. With proper treatment, some alcoholics can learn to take the occasional social drink without getting into trouble.

39. Most alcoholics are either drunk or drinking every day.

40. A person usually has very little warning before he becomes an alcoholic.
THE DRUG-ABUSE QUESTIONNAIRE

On the following pages you will find a number of statements about drug-abuse. We want to know how much you agree or disagree with each of the statements. To the right of each statement you can find a rating scale:

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

The points along the scale (1, 2, 3, ..., 7) can be interpreted as follows:

1. Completely disagree
2. Mostly disagree
3. Disagree more than agree
4. Neutral
5. Agree more than disagree
6. Mostly agree
7. Completely agree

The use of the scale can be illustrated with the following statement: "There are very few female drug-abusers".

If you agreed completely with this statement, you would place a mark in column 7.
If you agreed slightly with the statement, you would place a mark in column 5.
If you mostly disagreed with the statement, you would place a mark in column 2.
In this manner you can indicate the extent to which you agree or disagree with each of the statements on the following pages. Like everyone else, you will probably feel that you do not know the answer to some of the statements. When this occurs, please make the best guess you can.

Please make your marks inside the agreement or disagreement boxes of the scales. Do it like this:

![Correct Method]

Do not do it like this:

![Incorrect Method]

Please make sure that you make a mark for each statement. Leave none of the statements blank and make only one mark for each. You should not spend more than a few seconds marking each statement. If it is difficult for you to make up your mind, make the best guess that you can and go on to the next one.
1. A person who often uses drugs to the point of being high is almost always an addict.

2. People who become addicts are usually lacking in will power.

3. Most addicts have no desire to stop using drugs.

4. The average addict is usually unemployed.

5. A person can inherit a weakness for drugs.

6. The addict is helpless to control the amount of drugs he uses.

7. Addicts usually have severe emotional difficulties.

8. Addiction is best described as a habit rather than an illness.

9. The addict uses drugs excessively mainly because he enjoys using drugs.

10. An addict can get into as much trouble by using drugs like barbiturates as by using heroin.

11. A person who frequently stays high for several days at a time is unquestionably an addict.

12. The addict is seldom helped by any sort of medical or psychological treatment.

13. The addict has only himself to blame for his problem.

14. Addicts, on the average, have a poorer education than other people.
15. Addicts seldom harm anybody but themselves.

16. Hardly any addicts could use fewer drugs even if they wanted to.

17. The most sensible way to deal with addicts is to compel them to go somewhere for treatment.

18. The addict is a morally weak person.

19. An addict's basic troubles were with him long before he had a problem with drugs.

20. Once a person becomes an addict he can never learn to use drugs occasionally again.

21. The harm done by addicts is generally overestimated.

22. Very few addicts come from families in which both parents did not use drugs.

23. Even if an addict has a sincere desire to stop using drugs, he cannot possibly do so without help from others.

24. Nobody who uses drugs is immune from addiction.

25. Even if a heavy user of drugs is able to stop using drugs for several weeks at a time, he may still be an addict.

26. Addiction is a sign of character weakness.

27. Addiction never comes about very suddenly.
28. Unhappy marriages and other unpleasant family situations often lead to addiction.

29. Addiction is not a disease.

30. Most addicts could not be rehabilitated even if more help were available for them.

31. Addicts are seldom found in important positions in business.

32. Preferring to use drugs alone rather than with friends is a sign of addiction.

33. Addicts are usually in good physical health.

34. The addict is basically a spineless person who has found an easy way out of his problems.

35. Some persons who use drugs heavily, but only on weekends, are addicts.

36. An individual who has something in his possession is driving him to use.

37. Most of us are completely unaware of our problem.

38. With proper treatment, some addicts are able to take drugs occasionally without getting into trouble.

39. Most addicts are either high or using drugs every day.

40. A person usually has very little warning before he becomes an addict.