The differing conclusions of researchers investigating personality factors in drug users are briefly reviewed. This study, particularly, examines the Minnesota Multiphasic Personality Inventory (MMPI) profiles of self-reported college drug users with the intent of understanding their personalities. The specific research question was: what are the personality patterns, as measured by the MMPI, of college students who seek professional psychological help with their drug usage problems. Five male college students, who had sought help at the Mental Hygiene Clinic of a Student Health Service, comprised the sample. Ranges on the various MMPI scales are included. Each "case" is discussed individually and appropriate data graphs presented. While there are acknowledge limitations in the data, the overall elevation of the profiles is high. The author emphasizes that the MMPI is primarily a diagnostic aid which shows symptomatology and not causality, and cautions that any interpretations must be made in conjunction with other data about the client. (TL)
THE COLLEGE DRUG USER: MMPI PROFILE ANALYSIS

Submitted
by
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Are certain personality types more likely to become drug users, or does the use of drugs produce certain personality types? Are the two interrelated? An understanding of the drug user is a complex problem. There are the external environmental and internal "self" factors to be considered, along with the interrelationship of the two. Previous studies have tended to approach the "drug user-personality type" problem in terms of this internal-external dichotomy or its interrelationship. Kuehn (1970), for example, in a study of the drug user and his family, reported that the college drug user tends to live excessively in the present, has an excessive and reactive position in interpersonal relationships, has serious cognitive difficulties, inexplicable depressions, experiences un-rewarding sexual behavior, and uses repression, rationalization, intellectualization, and isolation as defenses. Rosenberg (1969) discovered similar environmental, emotional, cognitive interactions in his study of drug users in a "hippie" subculture in Australia. The nature of these personality differences has been given further attention by Cockett and Marks (1969) in their study of amphetamine users.

Limentani (1968) found a definite suicidal tendency in his study of drug addicts. This result was supported by Edwards, Bloom
and Cohen (1969), who concluded that drug users are unable to handle their aggressive feelings. The resulting hostility could be internalized to the point of suicide.

Several studies, Guze, Goodwin and Crane (1969), Sheppard, Fiorentino, Collins, and Merlis (1969), Smart and Fejer (1969), Stanton (1956), and Belleville (1956) have found a basic psychopathic character disorder in drug users.

The latter studies indicate that the drug user exhibits similar personality manifestations as the alcohol user. Evidence for this conclusion was supported by the findings of Hewitt (1943), Rubin (1948), and Hampton (1951). There has also been some indication that drug use is associated with psychotic personalities both prior to, during, and after drug use (Nathan, 1969).

Researchers using the Minnesota Multiphasic Personality Inventory (MMPI) have reached different conclusions. Sheppard, et al. (1969), using the MMPI to validate the Emotions of Profile Index (EPI), found a psychopathic and psychotic pattern among heroin users. Smart and Fejer (1969), on the other hand, found only the psychopathic pattern among LSD users. Although Hathaway and Meehl (1951) provide a list of codes in the Atlas of cases dealing with drug addiction, these, too, indicate differences. To further complicate the problem, a recent study by Gendreau and Gendreau (1970) of Canadian heroin addicts reported no significant difference in MMPI profiles between the 81 non-addicts and the 51 addicts used in the study. McAree, Steffenhagen, and Zhentlin (1969), however, discovered a significantly higher MF score for male college marijuana-
only users, and a significantly higher Sc score for the male college
gross-multiple drug user. They also found a trend for the F, Hy,
Pd, Ma and Si scales to be higher in the gross-multiple user than
those of their control group.

To date, however, no research has been conducted which has
sought to understand the present "drug culture" among college
students in an idiosyncratic sense, that is, in and of itself.

The purpose of this study was to examine the MMPI profiles
of self-reported college drug users with the intent of understanding
the personalities embodied. The question to be answered, therefore,
was, What is the personality pattern(s), as measured by the MMPI,
of that group of college students who seek professional psychological
help as a result of drug usage? Result is here defined as drug usage
being the presenting problem or precipitating factor to seeking help.

METHOD

The subjects were five male college students who were seen at
the Mental Hygiene Clinic of the Student Health Service during the
1970-71 school year and who had taken the group form of the Minnesota
Multiphasic Personality Inventory (Hathaway and McKinley, 1967). They
represent the only students out of the total number of self-reported
drug users from whose case notes it could be determined type of drug
used, number of times used, and length of time on specific type of drug.

The anonymity of these students was a major consideration. There-
fore, the only additional information secured was age, sex and college
classification. Furthermore, only those persons who reported using
drugs more than once were included in the study.
Due to the small number of subjects, the five profiles were presented in a composite T-score and code form, and then each individual profile was analyzed by the case study method.

RESULTS

A composite of T scores and codes for the five profiles appear in Table 1.

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Insert Table 1 about here

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The Cannot Say Scale (?) includes unanswered items and means that the individual is hesitant to answer, or cannot or will not answer. The range in T scores for the five subjects was from 0 to 43.

The Lie Scale (L) includes items revolving around minimal kinds of faults which most persons tend to have, and it assesses falsification in attempting to place oneself in a more socially acceptable light. The range was from 43 to 56.

The Validity Scale (F) includes those items rarely chosen by the normal population and, therefore, assesses response conformity and whether the inventory was taken and/or scored correctly. The range was from 64 to 90.

The Correction Scale (K) includes those items measuring test-taking attitude or "response set" of the examinee, and it acts as a suppressor variable aimed at sharpening the discriminatory power of certain clinical scales. The range was from 38 to 64.

Scale 1 (Hs) measures the amount of abnormal concern an individual might have about bodily functions and health including pains and disorders without organic basis. The range was from 54 to 93.
Scale 2 (D) assesses poor morale of the emotional type with feelings of uselessness and inability to assume normal optimism with regard to the future. The range was from 46 to 104.

Scale 3 (Hy) assesses the use of general systemic complaints or paralyses, contractures, gastric or intestinal complaints, cardiac symptoms, weakness, fainting, epileptiform convulsions. The range was from 73 to 89.

Scale 4 (Pd) assesses amoral and asocial personality tendencies characterized by the absence of deep emotional response, inability to profit from experience, and a flagrant disregard for social customs. The range was from 73 to 97.

Scale 5 (Mf) assesses masculine and feminine traits, especially interests. The range was from 63 to 92.

Scale 6 (Pa) assesses personality characteristics such as suspiciousness, oversensitivity, and delusions of persecution, with or without expansive egotism. The range was from 53 to 82.

Scale 7 (Pt) assesses personality traits characterized by obsessive ruminations, compulsive behavioral rituals, unreasonable fears, excessive worry, inability to concentrate, lack of confidence, guilt feelings, vacillation in making decisions, high standards of morality or intellectual performance, mild depression, self-critical attitudes, anxiety and unemotional aloofness from some personal conflicts. The range was from 63 to 93.

Scale 8 (Sc) assesses personality traits characterized by bizarre and unusual thoughts, delusions of varying degrees of organization, hallucinations, disorientation, constraint, inaccessibility, inactivity
and splitting of subjective life from reality. The range was from 68 to 111.

Scale 9 (Ma) assesses personality traits characterized by marked overproductivity in thought and action which fails to carry through to a successful conclusion. The range was from 65 to 86.

Scale 0 (Si) assesses the tendency to withdraw from social contact with others; i.e., introversion. The range was from 34 to 61.

Case 1

This is the case of a nineteen-year-old freshman male who had been using marijuana and LSD for about three years. The profile appears in Figure 1.

The absence of any R items and only six L items indicate lack of confusion and only mild defensiveness. The moderate elevation of the F scale could be interpreted as part of the degree of emotional disturbance in the neurotic and psychotic triads (Dahlstrom and Welsh, 1960). The lowered K scale indicates a trend to accentuate one's negative traits.

The Hs scale is difficult to interpret. Its moderately low elevation (in connection with the total profile) is probably indicative of immaturity in approaching adult problems, rather than gross hypochondriasis (Hathaway and McKinley, 1967). The D scale, while not peaked but having a T score of 70 probably shows moderate discomfort. The peaked Hy scale strongly suggests the use of physical symptoms as a means of solving difficult conflicts or avoiding mature responses.
sibilities. Some asocial behavior is indicated by the moderate elevation of the Pd scale. The peak of the Mf scale could be either evidence for homoerotic practices or femininity of a male whose sexual expression is inhibited. Suspiciousness rather than acute paranoia is suggested by the elevation of the Pa scale. The Pt scale elevation indicates some degree of obsessive thinking and possibly compulsive behavior. Bizarre mentation and peculiarities of perception are indicated by the peak of the scale. The elevation of the Ma scale would suggest grandiosity, excitement and agitation. The trailing of the Si scale (in relation to the total profile elevation) suggests a trend toward withdrawal from social contact with others.

Turning to combinations, the Hy Mf pattern is interpreted by Gilberstadt and Duker (1965) as indicative of deep-seated psychosexual passivity. The moderate elevation of the neurotic triad suggests chronicity with the neurotic defenses stable and effective. The mild elevation of K and Ma with the Hy peak may imply denial of problems. The pattern may also indicate either an exaggeration of symptoms due to stress or an exaggeration of drug intake to deal with neurotic ideation. The low K, high Sc and mild Si elevation would suggest a "set" for social desirability to compensate for dissatisfaction in social adjustment. The confounding of the psychic and somatic items makes diagnosis difficult.

Case 2

This is the case of a twenty-year-old junior male who had been using marijuana regularly for over three years and hashish and LSD
for the last year. The profile appears in Figure 2.

Although there are 12 items in the ? scale, it is not sufficiently high enough to make any difference in interpretation. Also, the L scale is on the midpoint indicating lack of defensiveness. Both the F and K scales are within the normal range indicating no deviant way of unusual perceptions or level of ego strength.

In that both the Hs and D scales have minor variation around the midpoint, no interpretation can be given on the scales by themselves. However, the elevation of the Hy scale would suggest an individual who is alert, talkative, and enthusiastic. The peak Pd scale indicates lack of social conformity and self-control. Sensitivity, aesthetic interests, and individualism are suggested by the elevated Mf scale. The elevation of the Fa scale indicates pervasive suspiciousness and interpersonal sensitivity. The mild elevation of the Pt scale would suggest some degree of compulsive emotional aloofness. Similarly, the elevation of the Sc scale indicates a retreat into daydreaming and fantasy to avoid intrapsychic emotional conflicts. Anxious excitement, impulsivity, and adventuresomeness are indicated by the Ma scale elevation. The low-point Si scale suggests versatility and sociability.

With regard to combinations, the Pd peak and the neurotic triad low in relation to the total profile with Hy elevated is suggestive of antisocial character disorders (Schmidt, 1945). The Pd Pa pattern would suggest irritability and suspiciousness. The Pd Hy pattern is often indicative of social maladjustment with exaggerated claim to social familiarity and ease while really quite fearful, hostile,
suspicious, and resentful. The Pd, Pa, Mf elevation suggests difficulty in heterosexual relationships. Furthermore, with Pd up and Mf down, there is a fear of emotional involvement. Overall the profile approaches that of a character or conduct disorder.

Case 3

This is the case of an eighteen-year-old freshman male who had taken LSD on three occasions within a recent six month period. The profile appears in Figure 3.

The absence of any ? items and the midpoint scores or the L and K scales indicate defenselessness and a degree of low self-esteem. The elevation of the F scale is indicative of invalid test taking attitude. However, with the elevated Sc scale, the F elevation probably indicates an unusual way of behaving.

The acute elevation of the Hs, D, and Hy scales would accentuate a depression due to stress with accompanying somatic complaints. The Pd scale elevation indicates social skills with emotional shallowness. Normal masculine interests are indicated by the Mf scale. The low Pa scale suggests a self-distrusting and conscienceless individual. The Pt scale elevation indicates obsessive worrying and compulsive unemotionality. The extreme elevation of the Sc scale suggests acute bizarre fantasies and preoccupation of intrapsychic thoughts. The Ma scale elevation is indicative of internal turmoil and excitation. A mild degree of introversion is probably indicated by the Si scale.

The D Sc combination with its extreme elevation suggests depression,
anxiety, and agitation leading to a psychotic depression. The low K would suggest a desire to accentuate one's negative traits and is a plea for psychological and physiological help. Also, the low Mf scale with elevated neurotic and psychotic triads indicates the severity of stress. The elevated Pd scale with the lower Mf scale suggests the avoidance of close interpersonal relationships with fear of emotional involvement. The overall profile picture is one of an acute reaction to stress with depression and a frantic plea for help.

Case 4

This is the case of an eighteen-year-old freshman male who had been using marijuana regularly for two years, LSD on six occasions during the last six months, and "speed" on two occasions within the last month. The profile appears in Figure 4.

A raw score of 18 on the F scale makes the validity of the test questionable. The "saw-toothed" profile (Gough, 1947) may be a conscious attempt to look bad and thus secure help; or with the acute elevation of the Sc scale, it may indicate typical unusual thought and behavior patterns. Consequently, very little can be said about the profile by itself. Other test data would be needed.

Case 5

This is the case of a nineteen-year-old junior male who reported two recent experiences with LSD and one experience with heroin. The profile appears in Figure 5.
A raw score of 22 on the F scale and a F-K of 14 assures the non-validity of this profile. The acute elevation of the F and Sc scales with an overall elevation of the total profile may suggest some validity that this person defenses a weak ego with a reaction formation of being unusual and different. Otherwise no other interpretation can be given.

**DISCUSSION**

The interpretation of the results of this study encounter the limitations discussed by Dahlstrom and Welsh (1960) and by Carkhuff, Barnette, and McCall (1965); namely, the MMPI is primarily a diagnostic aid showing symptomatology and not reasons for, and the interpretation should be made in conjunction with other data about the client. A third limitation is the small N.

Using the individual profile interpretation method, however, certain observations were noted.

First, the fact that two of the five profiles were invalid could indicate either a conscious, hostile, rebellious, flippant test taking attitude or a sensory handicap due to drug intake.

Second, the elevated F scale on the valid profiles would suggest either young persons going through periods of rebellion against their families and traditional values or encapsulated withdrawal of the schizoid type. The latter is particularly cogent with the elevated Sc scales.
Third, the consistently elevated Hy scale would indicate the use of physical symptoms, either real or feigned, to solve difficult conflicts or to avoid mature responsibilities.

Fourth, the consistently elevated Pd scale would tend to indicate emotional shallowness and resentment for rules and regulations. Also, with the mild to high elevation of the Ma scale and the consistent elevation of the Hy scale a conduct disorder tendency is suggested.

Fifth, the findings of McAree, et al. (1969) were partially supported with the high elevation of the Mf scale on two of the profiles. This would indicate an inability to assume the socially acceptable male role, feminine interests, or engagement in homoerotic practices as a part of sexual role confusion.

Sixth, the elevated Sc scale suggests traits of sensitivity, worry, social alienation, and a splitting of the subjective life from reality. This substantiates the findings of McAree, et al. (1969) and Kuehn (1970).

Finally, the overall elevation of the profiles is high. In that two of the three valid profiles (and both invalid profiles) had either the Hy, Pt, or Sc scales in the first two code positions, there is consistency with the research of Dahlstrom and Welsh (1960) that these three scales tend to elevate the overall profile.

Any personality trait interpretation as outlined above should take into consideration other pertinent information, particularly as it relates to the college drug user. And most assuredly the "drug culture" among the college population is in need of continued research.
REFERENCES


TABLE 1
T Scores and Codes* for Five Profiles

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*Welsh (1948) coding system
Figure Captions

Figure 1  Profile of nineteen-year-old freshman male who had been using marijuana and LSD for three years.

Figure 2  Profile of twenty-year-old junior male who had been using marijuana regularly for three years and hashish and LSD for one year.

Figure 3  Profile of eighteen-year-old freshman male who had taken LSD on six occasions during six month period.

Figure 4  Profile of eighteen-year-old freshman male who had been using marijuana for two years, LSD for six months, and "speed" for one month.

Figure 5  Profile of nineteen-year-old junior male who reported two recent experiences with LSD and one with heroin.
Figure 5