

CONSISTENCY OF PSILOCYBIN INDUCED CHANGES IN THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

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INTRODUCTION

The effects of "psychotomimetic" drugs such as Lysergic Acid Diethyl Amide, Psilocybin and Mescaline on personality function are difficult to evaluate. Some use has been made of the Minnesota Multiphasic Personality Inventory to examine such changes during the drug reaction. Lebovits⁽¹⁾, Belleville⁽¹⁾ and Keeler⁽²⁾ have reported significant increases in different scales using this method. These studies did not indicate if the responses of the subject population would be consistent in two drug reactions nor did they indicate if individuals in the subject population would be consistent as compared to each other in successive drug trials. Without some measure of consistency it is impossible to differentiate changes in MMPI scales which reflect drug effect or stable subject response from those which reflect experience or other uncontrolled influences.

METHOD

Twelve volunteer Ss received .2 mgm of Psilocybin per kilogram of body weight on each of two occasions at two week intervals. MMPIs were administered the day before and during each Psilocybin reaction. The subjects ate a light breakfast and the drug was administered at 9:00 a. m. Double-blind placebo methods were not practical as subjects and experimenter knew when Psilocybin was given. This lack of Placebo control is not as vital in a study of consistency as it would be if absolute differences were the focus of study.

RESULTS AND DISCUSSION

Table 1 indicates the results of the study. In the first trial the Hs (Hypochondriasis) and Sc (Schizophrenia) scales increased as compared to the preceding day for the group at the $p < .05$ level. In the second trial the K (Defensiveness), Hs, D (Depression), Hy (Hysteria) and Pd (Psychopathic Deviate) scales so increased. The behavior of the group in the first experience was of limited use in predicting group response in the second experience.

The consistency of changes in individual Ss as compared to the group was tested by comparing the rank orders of the changes of each S in each scale in the two experiences. Where decreases in scales occurred, the greatest decrease was taken as the least increase. Ss were consistent at the $p < .05$ level only in the Hs and Hy scales as tested by the Spearman rank correlation coefficient. Rank order in the group in the first Psilocybin trial was a poor predictor of rank order in the subsequent trial. The data do not indicate failure of the MMPI to delineate a Psilocybin reaction. It is possible that individual subject's reactions were quantitatively rather than qualitatively different on the two occasions. It is possible that more consistent results would be obtained with larger N's; the limitation indicated by this study is pertinent, however, to previously reported investigations^(1, 2, 3).

SUMMARY

The MMPI changes of a subject population during two Psilocybin reactions two weeks apart indicated that the results on the first experience did not, for most scales, predict how the group would react on the second occasion nor for most scales did the rank order of individual subjects on the first occasion predict their standing in the group in the second experience.

REFERENCES

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TABLE 1. CONSISTENCY OF MMPI CHANGES DURING SUCCESSIVE PSILOCYBIN EXPERIENCES

Scale	1st Trial		2nd Trial		Subject* Consistency
	Control	Change with Drug	Control	Change with Drug	
L	43.3	+2.0	43.4	+4.4	-.24
F	52.0	+3.3	52.5	+2.0	-.28
K	58.6	+1.4	60.0	+2.5**	+.42
Hs	46.3	+5.7**	47.5	+4.6**	+.65***
D	54.2	+2.3	49.6	+4.2**	+.01
Hy	59.7	+1.9	54.5	+3.9**	+.57***
Pd	60.0	-.1	59.0	+2.6	+.39
Pa	49.3	+5.0	52.0	+1.8	+.35
Pt	54.	+2.0	52.0	+3.5**	+.23
Sc	54.3	+8.5**	53.	+7.8	+.32
Ma	58.0	-1.7	55.4	+1.6	+.53

*Spearman Correlation Coefficients; ** $p < .05$ (Wilcoxon Signed Rank Test); *** Significant at $p < .05$.