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ATTITUDES OF PSYCHIATRIC AIDES TOWARDS "CRIMINALLY INSANE" PATIENTS

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Historically, the single most important fact about mental hospitals at this time is that many of them are involved in a process of transformation from a custodial to a treatment orientation, organization, and program.[1] The group of patients legally designated as "dangerously insane," usually referred to as "criminally insane," or "CI,"[2] constitutes, nationally, the one group of patients which is the "least and last" to be included in this transition. This, despite the fact that available evidence provides no rationale whatsoever for such differential discrimination.[3]

It is assumed that a primary reason for this lag is the attitudes of personnel working with these patients. It would follow that until the nature of these attitudes toward "CI" patients and their treatment can be ascertained, appropriate procedures for their modification cannot be successfully initiated in a manner designed to facilitate the desired custodial-to-treatment transition. This study is an attempt to ascertain certain of these attitudes, and to explore in a preliminary way some of the circumstances or characteristics with which they may be associated. It is part of a larger investigation designed to assess and compare attitudes of all the several disciplines who work with "CI" patients.

The present work involves psychiatric aides, who were selected to be studied first because they comprise the staff group in most extensive, "24-hour-a-day," contact with these patients. Review of the literature reveals that no specific research has been reported, to date, in relation to the attitudes of psychiatric aides toward "CI" patients.

PROCEDURE

The paper presents: (1) Description of the instrument constructed to assess expressed attitudes toward "CI" patients (referred to hereafter as the "CI" Attitude Scale, and "CI" attitudes) and its administration to the sample; (2) Relationships between "CI" attitudes and selected personality and other characteristics; (3) A factor analysis of the correlation matrix representing these relationships; (4) Relationships between "CI" attitudes and certain peer perceptions (e.g., "Best Aide," "Best Friend"); (5) Modifiability of "CI" attitudes.

"CI" ATTITUDE SCALE

First, five categories considered important in connection with attitudes toward "CI" patients were set up on an a priori basis. These included: 1. Attitudes regarding mental illness. 2. Attitudes regarding "CI" patients. (a) Attitudes differentiating "CI" patients from non-"CI" patients. (b) Attitudes toward "CI" patients in general. (c) Attitudes differentiating "CI" patients with regard to type of criminal charge and for type of clinical condition (*i.e.*, "CI's" perceived as a homogeneous "class" or of different "kinds" with different problems). 3. Attitudes regarding treatment (including "security," ward government, etc.; items pertaining to patients, type not specified, and "CI" patients in particular). 4. Attitudes regarding discipline and punishment. 5. Attitudes regarding aides (items included primarily for the purpose of increasing rapport; a separate study

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Part of this study was reported in a paper read at the 1959 American Psychological Association Convention, Cincinnati, Ohio. It is one of the interrelated studies of the group research program conducted by the Department of Clinical Psychology. Appreciation is expressed for contributions made by previous participants: B. Wysocki, L. Miller, W. McDonald, R. Sommer *et al.*

[1] Pratt, Scott, Treesh, J. Khanna, Lesher, P. Khanna, Gardiner & Wright, *The Mental Hospital and the "Treatment-Field,"* 11 J. PHYSCHOL. STUD. (1960 Supp. No. 8).

[2] All "CI" patients in the State of Kansas are confined to Larned State Hospital for psychiatric evaluation, treatment, and "security." These are mental patients having criminal charges against them.

[3] Miller, Spilka & Pratt, *Manifest Anxiety and Hostility in "Criminally Insane" Patients,* 21 J. CLIN. EXP. PSYCHOPATH. QUART. REV. PSYCHIAT. NEUROL. 41 (1960).

will investigate perception of "CI" staff-patient roles).

Next, items were constructed by eight staff clinical psychologists which on the basis of face value content were consensually considered to measure these attitudes. Fifteen items relating to frankness or honesty were added. These were from the L ("lie") Scale of the Minnesota Multiphasic Personality Inventory.[4] The final "CI" Attitude Scale[5] consisted of 75 items, randomly ordered.

By pooling the judgments of eight clinical psychologists, a direction of "psychiatrically favorable" versus "psychiatrically unfavorable" was assigned to each item. Unanimity of assigned direction was found for all but six items; for these six items seven out of eight judges were in agreement. Items were to be rated by each subject on a four point forced-choice scale: Strongly Agree (A), Mildly Agree (a), Mildly Disagree (d), Strongly Disagree (D). Weights of 3, 2, 1, 0, were assigned on an a priori basis in the above order to items for which Agree was the favorable direction and in the reverse order to items for which Disagree was the favorable direction. Thus a high score represents psychiatrically favorable attitudes, and a low score unfavorable attitudes. Reliability of this scale by Hoyt's technique[6] was found to be .87. Information about the factorial validity[7] was obtained by the factor analysis as reported below.

The sample consisted of 31 male aides and included all personnel of this staff group currently assigned to work with "CI" patients. In terms of aide status (position classification) this was 7 Attendants, 20 Psychiatric Aide I's, and 4 Psychiatric Aide II's. Their education ranged from eighth grade to three years of college; age from 22 to 74, mean age being 45. This number included all three shifts. The range of their length of employment was from 1 to 14 years. The mean length of employment was 2.6 years. The "CI" Attitude Scale was administered within a two-day period, including all three shifts, so as to minimize the effect of rumor as a function of inter-aide communication during time lag. No names were written on the coded questionnaires, and subjects were assured that the outcome would not affect their employment and that no supervisory personnel would have access to the data in any way that would identify an individual.

RELATIONSHIPS BETWEEN "CI" ATTITUDE SCALE SCORES AND SELECTED AIDE CHARACTERISTICS

Relationships between "CI" attitudes and the following characteristics, with the exception of Aide Status, were determined by computing Pearson Correlations: Age, Education, Length of Employment, Aide Status (Spearman rho), Performance Ratings, Intelligence, Social Service Orientation, and Selected Personality Attributes. The latter included aspects of personality, e.g., "neurotic and psychosomatic disturbance" as assessed by the Cornell-Index Form N2[8] and Harrower's Multiple Choice (Rorschach) Test[9] which had been given to the sample following standard procedures of administration and scoring. Intelligence (IQ) was measured by the Otis Employment Tests 2A.[10] Social Service Orientation was assessed by using the Social Service score of the Kuder Preference Record Vocational Form Ch.[11] Data for the sample on these measures were available as these tests are part of the employment selection battery routinely given to hospital personnel. Performance ratings were average rankings given, currently, to the subjects by five of their supervisors who had known them well for a considerable period of time.

FACTOR ANALYSIS

A factor analysis of the correlation matrix representing the relationships between "CI" attitudes and aide characteristics was undertaken in an attempt to identify the traits which the different variables measure in common and which result in their intercorrelations, with specia reference to the traits that are assessed by the "CI" Attitude Scale.

[4] HATHAWAY & MCKINLEY, MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (rev. ed., N.Y.: Psychological Corp. 1951).

[5] A copy of this Scale and instructions used in administration is available upon request from the authors.

[6] Hoyt, *Test Reliability Obtained by Analysis of Variance*, 6 PSYCHOMETRIKA 153 (1941).

[7] ANASTASI, PSYCHOLOGICAL TESTING (N.Y.: MacMillan 1954).

[8] WEIDER, WOLFF, KEEVE, MITTELMANN & WECHSLER, CORNELL-INDEX (N.Y.: Psychological Corp. rev. 1949).

[9] HARROWER & STEINER, LARGE SCALE RORSCHACH TECHNIQUES (Springfield, Ill.: Charles C. Thomas, 2d ed. 1951). Hereinafter referred to as Rorschach.

[10] OTIS, OTIS EMPLOYMENT TESTS MANUAL OF DIRECTIONS (N.Y.: World Book 1943).

[11] KUDER, EXAMINER MANUAL FOR THE KUDER PREFERENCE RECORD VOCATIONAL FORM-C (Chicago: Science Research Associates 1951, 1953).

RELATIONSHIPS BETWEEN "CI"-ATTITUDE SCORES AND PEER PERCEPTIONS

Correlation procedures were used to explore in a preliminary manner the structure of the perceptions of certain peer relationships with each other and with "CI" attitudes. This included relationships between: (a) favorable "CI" attitudes and "Best Aide" rankings, *i.e.*, ranks assigned to sample aides by aides and by nurses; (b) "CI" attitudes and friendship "clique" rankings, *i.e.*, ranking of the sample on the basis of "Best Friend" peer relationships; (c) "Best Aide" rankings and "clique" rankings; (d) "Best Aide" rankings by aides (peer) and "Best Aide" rankings by nurses (supervisory).

MODIFIABILITY OF "CI" ATTITUDES

In order to investigate the modifiability of "CI" attitudes and to evaluate the hospital's present special one-month training course for psychiatric aides assigned to work with "CI" patients in terms of its effectiveness in changing these attitudes, the "CI" Attitude Scale was administered at the beginning and upon completion of the course.

RESULTS

RELATIONSHIPS BETWEEN "CI" ATTITUDE SCALE SCORES AND SELECTED AIDE CHARACTERISTICS

Relationships were determined by computing intercorrelations between variables. The resulting correlation matrix is presented in Table I.

It is evident that a psychiatrically favorable attitude toward "CI" patients is associated to a fair degree (r = .64) in a positive linear fashion with Intelligence. Social Service Orientation (r = .40) and Age (r = .44) also have a moderate and positive relationship with favorable attitudes. It is interesting to note that the correlation of Age with "CI" Attitude Scale score though moderate is opposite in direction to that reported in other studies dealing with non-"CI" mental patients.[12] Furthermore, high Performance Ratings were found to be associated with positive "CI" attitudes.

Aide Status is also positively related to favorable "CI" attitudes (rho = .57). For practical purposes, at least on the dimension of attitudes toward "CI" patients, the findings provide rationale for the personnel classification system as it applies to the Attendant, Aide I and II classifications. Length of Employment and Education (*i.e.*, years of formal schooling) do not show a significant relationship with "CI" Attitude Scale scores. Particular aspects of personality or adjustment as assessed by the Cornell-Index and the Rorschach likewise were not found to be related to attitudes toward "CI" patients. Education and Intelligence were found to have only a slight positive correlation with each other (r = .35). This would suggest that in aide selection, intelligence per se might well be stressed rather than the amount of formal education that the applicant has had.

FACTOR ANALYSIS

A centroid factor analysis[13] was rotated by means of Neuhaus and Wrigley's Quartimax method[14] setting the tolerance at .001. Six factors were extracted. The factor loadings are presented in Table II. Since, by the nature of the data, a Spearman rho had to be computed to study the relationship of Aide Status to "CI" attitudes, it was not advisable to include this correlation in the factor analysis.[15]

In Factor I, the factor loadings of "CI" attitudes and IQ are .841 and .766 respectively, whereas the factor loadings of Social Service Orientation score and Performance Ratings are .338 and .361 respectively. These loadings may be interpreted as indicating that a common trait is involved in performance on the "CI" Attitude Scale and the Otis (Intelligence) Test. The same trait is involved to some extent in performance on the Social Service scale of the Kuder and in Performance Ratings by Supervisors.

It will be noticed that the "CI" Attitude Scale has a high factor loading (.841) on Factor I. Its factor loadings on other factors are very low. Thus it appears that "CI" attitudes as assessed in the present investigation are primarily a function of a relatively unitary trait, which has been identified

[12] Middleton, *Prejudices and Opinions of Mental Hospital Employees Regarding Mental Illness*, 110 AM. J. PSYCHIAT. 133 (1953); Pratt, Giannitrapani & P. Khanna, *Attitudes Toward the Mental Hospital and Selected Population Characteristics*, 16 J. CLIN. PSYCHOL. 214 (1960); Woodward, *Changing Ideas on Mental Illness and its Treatment*, MENTAL HEALTH AND MENTAL DISORDER 482 (Rose ed., N.Y.: Norton 1955).

[13] THURSTONE, MULTIPLE FACTOR ANALYSIS (Chicago: U. of Chicago Press 1947).

[14] Neuhaus & Wrigley, *The Quartimax Method*, 7 BRIT. J. STATISTICAL PSYCHOL. Part II (1954).

[15] FRUCHTER, INTRODUCTION TO FACTOR ANALYSIS 201 (N.Y.: Von Nostrand 1954).

TABLE I

INTERCORRELATIONS BETWEEN "CI" ATTITUDES AND AIDE CHARACTERISTICS

	"CI" Attitudes	Intelligence (IQ)	Length of Employment	Cornell-Index	Rorschach (Multiple Choice)	Social Service Orientation	Age	Education	Performance Ratings
"CI" Attitudes		*.64	.23	.19	.21	*.40	*.44	.25	*.41
Intelligence (IQ)			.21	.22	.03	.20	.12	*.35	.21
Length of Employment				.08	.09	.20	*.40	.27	.09
Cornell-Index					.13	.08	.12	.28	.11
Rorschach (Multiple Choice)						.09	.05	.23	.24
Social Service Orientation							.21	.20	.12
Age								.30	*.49
Education									.14
Performance Ratings									

* Significant at 5% level.

TABLE II

ROTATED FACTOR MATRIX

Variables	I	II	III	IV	V	VI
X_1 "CI" Attitudes	.841	.272	−.028	.134	.033	.137
X_2 Intelligence (IQ)	.766	−.009	.183	−.137	−.059	−.196
X_3 Length of Employment	.182	.295	.237	−.104	−.383	.116
X_4 Cornell-Index	.221	.069	.394	.065	.063	−.049
X_5 Rorschach (Multiple Choice)	.107	.057	.222	.433	.013	.112
X_6 Social Service Orientation	.338	.172	.075	−.003	−.113	.400
X_7 Age	.200	.903	.068	.004	−.011	.030
X_8 Education	.252	.202	.624	.033	−.044	.024
X_9 Performance Ratings	.361	.427	−.016	.413	.050	−.118

in Factor I. The emergence of such a trait lends support to the factorial validity of this Scale. It can be seen from the additional Factor I loadings that the trait responsible for performance on the "CI" Attitude Scale does not play an appreciable part in performance on variables X_3, X_4, X_5, X_7, and X_8 (Table II).

In Factor II, Age has a factor loading of .903 and Performance Ratings a loading of .427. The other variables have very low loadings on this Factor. The implication of high factor loadings of Age and Performance Ratings is difficult to explain. One might hazard a guess that Performance Ratings are influenced by age—that the supervisors tend to rate older employees better. This is supported by the Pearson Correlation of .49 which has been reported earlier between these two variables.

Factor III has a factor loading of .624 for Education and .394 for the Cornell-Index, indicating that a common trait is operating to a certain extent in performance on these two variables. But the interesting thing here is the low factor loadings of "CI" attitudes (−.028) and IQ (.183) on this Factor. Evidently the number of years spent in school does not play an important part in one's having psychiatrically favorable attitudes. Furthermore, separate factors appear to be responsible for a person's IQ and for the length of his formal education. While this is contrary to "common sense," it nevertheless has interesting implications.

On Factor IV, the factor loading of the Rorschach is .433 and that of Performance Ratings (X_9) .413. Factor loadings of other variables are too low to merit detailed mention. Performance on the Rorschach evidently involves a trait which

has no commonality with any other variables except X_9. Possibly the supervisors, when they rate the aides, assess personality in a manner which is somewhat akin to the way in which it is evaluated by the Rorschach.

None of the variables have a high loading on Factor V, hence no definite conclusions can be drawn about the nature of this Factor. The highest factor loading is $-.383$ for variable X_3 (Length of Employment). Since X_3 has no high factor loadings on other factors, whatever is measured by this variable is not present to a large extent in factors responsible for psychiatrically favorable "CI" Attitudes, Intelligence, Age or Performance Ratings.

Inspection of loadings for Factor VI indicates that Social Service Orientation assesses a trait which has no commonality with any of the other measures used in this investigation. It has been mentioned above (in discussion of Factor I) that another aspect of Social Service Orientation is of importance in psychiatrically favorable "CI" attitudes.

RELATIONSHIPS BETWEEN "CI" ATTITUDE SCORES AND PEER PERCEPTIONS

Findings for relationships between "CI" attitudes, "Best Aide" rankings, and "clique" or friendship, *i.e.*, "Best Friend," rankings are presented in Table III. Correlation (Spearman rho) between "CI" Attitude Scale scores and "Best Aide" rankings by aides is .37, and .49 for rankings by nurses. This can be interpreted by saying that there is at least a moderate relationship between a person who has a psychiatrically favorable attitude and one who is judged as the "Best Aide" by other aides and nurses. The person viewed as a "Best Aide" by nurses seems to have an even more positive attitude than one who is viewed as a "Best Aide" by the aides. Furthermore, there is apparently considerable commonality in the perceptions of aides and nurses as far as "Best Aide" ranking is concerned (rho = .72).

It can be seen that there is a relatively high relationship between a person who is considered to be a close peer, "Best Friend," and one who is perceived as "Best Aide" (*i.e.*, by aides, rho = .68; by nurses, rho = .60). Only slight relationship obtains between favorable "CI" attitudes and "clique" or friendship rankings (rho = .34).

It is interesting to note that persons who have the most favorable "CI" attitudes are not necessarily viewed as "Best Aide" by either nurses or aides. Does this mean that a person needs something more than favorable "CI" attitudes to be judged "Best Aide"? Or does it mean that the concept of "Best Aide" held by nurses and aides does not lay enough emphasis on favorable "CI" attitudes? The present study does not answer these questions, but they do pose interesting possibilities for further investigation.

TABLE III

RELATIONSHIPS BETWEEN "CI" ATTITUDES AND PEER PERCEPTIONS

"CI" Attitude Scale Score and:	Rho
"Best Aide" Rankings by Aides	.37
"Best Aide" Rankings by Nurses	.49
"Best Friend" Rankings by Aides	.34
Between "Best Aide" Rankings:	
By Aides and by Nurses	.72
By Aides and "Best Friend" Rankings by Aides	.68
By Nurses and "Best Friend" Rankings by Aides	.60

MODIFIABILITY OF "CI" ATTITUDES

A t test was run between scores obtained from administrations of the "CI" Attitude Scale before and after training. The resultant t ratio was not significant at the 5% level of confidence, indicating that there had not been appreciable, if any, modification of attitudes toward "CI" patients as a result of completing the one-month training course. Much of the content of these special courses was specifically designed to impart information and to inculcate psychiatrically constructive attitudes toward "CI" patients. It had simply been taken for granted that these courses were resulting in the modification of attitudes in the desired direction. To corroborate these negative findings, the testing before and after training was replicated on a second group of psychiatric aides, the next time the special "CI" course was given. Again the test-retest comparison indicated no significant change in "CI" attitudes. Practically, these were hard-to-face findings. Theoretically, fascinating questions for research are raised. What kinds of determinants are involved in the apparent refractability to accepted educational procedures of these attitudes? In what ways do such determinants involve hospital organiza-