Journal of Abnormal and Social Psychology
1962, Vol. 64, No. 5, 349-360

OPINIONS ABOUT MENTAL ILLNESS IN THE PERSONNEL OF TWO LARGE MENTAL HOSPITALS[1]

JACOB COHEN
New York University

AND

E. L. STRUENING
Montrose Veterans Administration Hospital

The past decade has witnessed several major shifts in the conception, care, and treatment of hospitalized mental patients. There has been a move toward "open" hospitals, milieu therapy, patient government, and patient work programs. This newer outlook is based on the general assumption that the well-being of mental patients is at least to some extent influenced by the social context. Derivations from this assumption include the more specific hypotheses that mental patients are sensitive to and influenced by the attitudinal atmosphere created by hospital employees, that the success of reintegrating former mental patients into society is affected by the attitudes of the general public toward mental illness, and that these attitudes play a role in determining the support of mental health programs by the general public as voters and taxpayers.

Despite the manifest importance of this area, there has been little systematic research directed toward the finding of relationships between attitudes toward the mentally ill and such variables as symptom reduction, successful rehabilitation of former patients, hospital discharge rates, etc. Research of this kind depends upon the adequate conception and objective measurement of attitudes toward mental illness and the mentally ill. The major purpose of this investigation is to meet this need.

Previous work in this area is sparse. The pioneer work was the development of the Custodial Mental Illness Ideology (CMI) Scale by Gilbert and Levinson (1956). CMI scores were found to have correlates with hospital occupation, hospital treatment policy, and the California F Scale. The Cummings (1957) developed a Guttman scale of social distance from mental patients for use in their community studies. In both of these studies, a single (albeit different) pro-anti dimension of attitude was conceived, appropriate items were written, and were found to "scale" in the sense that internal consistency reliability (or reproducibility) was found to be adequate. But the fact that items can be organized on a single dimension does not mean that they are best so organized. A ready analogy comes to mind from the area of human ability. That one can identify a general intellectual factor in higher order domains (Thurstone, 1947) does not deny the existence or usefulness of group factors (verbal, numerical, space, etc.) in the understanding of intellectual functioning. The methodological base from which this investigation proceeds is that opinions about the mentally ill are potentially multidimensional, and the number and nature of these dimensions is an empirical issue, and not one to be assumed in advance; thus, the choice of multiple-factor analysis.

We conceive of attitudes as inferred variables which carry an affective or at least an adient-avoidant valence. Operationally, then, our responses reflect opinions, and the factors derived therefrom may[2] represent attitudes.

The purpose of the investigation was twofold:

[1] This work was carried out at the Franklin D. Roosevelt Veterans Administration Hospital, Montrose, New York, as part of the Veterans Administration Psychiatric Evaluation Project, Richard L. Jenkins, Director. We are indebted to many Veterans Administration personnel for their cooperation, among them L. L. Rackow, Manager; S. G. Klebanoff, Chief Psychologist; and Gloria Fischer, now at the University of Oklahoma. We also wish to express our gratitude to the IBM Watson Scientific Computing Laboratory, New York, for training us in computer technology and giving us free access to their facilities. Finally, we wish to express a continuing sense of indebtedness to Catherine S. Henderson, the project secretary, and Ethel Haas, our research assistant.

[2] But not necessarily. As will be noted later, Factors A through D are understood to be attitudinal in this sense, while E is an opinion factor.

1. To identify and develop measures of the salient dimensions underlying opinions about severe mental illness among hospital personnel.

2. To explore the construct validity of these measures by relating them to demographic characteristics of the respondents—occupation, education, age, and sex.

METHOD

Items. A pool of approximately 200 opinion items referring to the cause, description, treatment, and prognosis of severe mental illness was prepared. These items were made up of quotations from case conferences and casual conversations, and paraphrases of ideas which are current in the mental hospital. This group of items was reviewed by a group of hospital experienced research workers,[3] and items were edited, balanced with regard to pro and anti content, and overlapping ones discarded until 55 remained. These were supplemented by items (in some cases revised) from the Custodial Mental Illness Ideology (CMI) Scale (Gilbert & Levinson, 1956), the California F Scale (Struening, 1957), and Nunnally's (1957) work on popular conceptions of mental health to form a 70-item set. All items were presented in Likert format with provision following each for a checked response on a six-point agreement continuum.

Subjects. The phase of the investigation described here was carried out in two large Veterans Administration neuropsychiatric hospitals, one in the Northeast (Hospital I) and another in the Midwest (Hospital II) and utilized as subjects large samples of the personnel in these two hospitals. Later tables (7 and 8) give the distributions of these samples by occupation, education, age, and sex. There were in all 541 usable questionnaires from Hospital I and 653 from Hospital II, in each case broadly representative of the different levels and functions of personnel whose work brought them into frequent contact with the patients. In each hospital, some two-thirds to three-quarters of the target population were obtained as subjects.

Administration. Most of the subjects in both hospitals were group tested so as to guarantee anonymity. Where this was not possible (e.g., night nurses and aides who could not leave their posts), envelopes in which the completed questionnaires could be anonymously returned were provided. Instructions stressed anonymity and the fact that the issues were matters of opinion about which even professionals differed, so that there were no right or wrong answers.

Data analysis. The method of analysis described below was applied to each hospital separately. The two sets of data were analyzed successively, and in exactly the same way. First, the 70 × 70 matrix of product-moment coefficients of correlation between individual items was computed. Since the available IBM 650 program for centroid factor extraction is limited to 40 × 40 matrices, the following strategem was employed in analyzing the data for Hospital I:

1. The five items which yielded no more than one correlation numerically greater than .20 were dropped from further consideration.

2. Fifteen items whose correlations varied greatly and would therefore be the nucleus of maximally independent item clusters (Tryon, 1958, p. 12) were selected as marker variables.

3. The remaining 50 items were randomly divided in half and to each half the marker items were attached, yielding two 40 × 40 matrices sharing a group of 15 marker items.

4. The two matrices were each subjected to a standard centroid factor analysis. The first five centroids[4] were rotated to an orthogonal, simple-structure type of solution by means of the quartimax analytic method (Neuhaus & Wrigley, 1954).

5. The two rotated factor matrices were then compared by reference to the 15 marker item loadings. They proved remarkably similar, and no difficulty was encountered in matching the five rotated factors from the two analyses.

6. The factor matrices for the two analyses were then recombined. Since each marker item had two sets of loadings (one from each rotation in which it figured), a single loading on each factor was obtained by determining the root mean square of the paired loadings (i.e., the square root of the average of the two squared loadings).

Exactly the same method was used to analyze the Hospital II data. In Hospital II, 6 items were dropped completely on grounds of low correlation and 16 were used as marker items, resulting again in two 40 × 40 matrices of intercorrelations sharing a group of marker items which were analyzed as above and recombined into a single factor matrix.

RESULTS

Factors

As was the case in matching the factors over the two 40 × 40 matrices within each hospital, no difficulty was encountered in matching the five rotated factors in the two hospitals. As evidence of the factor similarity between hospitals, for each factor separately the rotated factor loadings for the two hospitals were correlated over the 62 items which

[3] Seymour Slovik, Leonard Solomon, Herbert Spohn, Herbert Turkel, and Harold Wilensky participated in this phase of the work, for which we express our indebtedness.

[4] There are undoubtedly more than five common factors in each of the matrices, but starting with the sixth centroid, factor loadings do not exceed .30 and exceed .20 for only two or three items. Thus, the 5 factors extracted are deemed the most salient of a set of perhaps 15 (judging from the latent roots) common factors.

Loading	
Hospital I	Hospital II
76	61
72	53
61	55
61	49
58	51
56	54
60	47
59	49
47	58
52	49
42	55
58	36
53	42
49	46
58	32
43	50
52	40
53	35
51	38
45	41
54	23
45	39
39	40
−72	06

[a] Not in root mean square order b

appeared in both analyses. T
son correlations between hos
B, .73; C, .38; D, .60; E, .7
adjusted correlation" (Burt,
used as an index of similar
values are: A, .92; B, .62; C
.81. Using either criterion,
the possible exception of Fac
satisfactory.

The similarity of the fact
pitals can be further judge
Tables 1 through 5, where t
of both hospitals for the m
items are presented. In each

TABLE 1

FACTOR A—AUTHORITARIANISM

Loading		Item
Hospital I	Hospital II	
76	61	68. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.
72	53	65. Obedience and respect for authority are the most important virtues children should learn.
61	55	11. When a person has a problem or worry, it is best not to think about it, but keep busy with more pleasant things.
61	49	34. A heart patient has just one thing wrong with him, while a mentally ill person is completely different from other patients.
58	51	16. All patients in mental hospitals should be prevented from having children by a painless operation.
56	54	26. There is something about mental patients that makes it easy to tell them from normal people.
60	47	29. People with mental illness should never be treated in the same hospital as people with physical illness.
59	49	14. Mental illness is usually caused by some disease of the nervous system.
47	58	27. If people would talk less and work more, everybody would be better off.
52	49	60. Every person should make a strong attempt to raise his social position.
42	55	22. It is easy to recognize someone who once had a serious mental illness.
58	36	12. Nervous breakdowns usually result when people work too hard.
53	42	8. People who are mentally ill let their emotions control them; normal people think things out.
49	46	52. Although patients discharged from mental hospitals may seem all right, they should not be allowed to marry.
58	32	2. One of the main causes of mental illness is a lack of moral strength or will power.
43	50	59. Every mental hospital should be surrounded by a high fence and guards.
52	40	6. People would not become mentally ill if they avoided bad thoughts.
53	35	70. Every person should have complete faith in some supernatural power whose decisions he obeys without question.
51	38	31. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.
45	41	50. The best way to handle patients in mental hospitals is to keep them behind locked doors.
54	23	39. Although some mental patients seem all right, it is dangerous to forget for a moment that they are mentally ill.
45	39	66. College professors are more likely to become mentally ill than are business men.
39	40	24. Regardless of how you look at it, patients with severe mental illness are no longer really human.
−72	06	13. The patients of a mental hospital should have something to say about the way the hospital is run.[a]

[a] Not in root mean square order because of inconsistency in loading.

appeared in both analyses. The resulting Pearson correlations between hospitals are: A, .86; B, .73; C, .38; D, .60; E, .77. When the "unadjusted correlation" (Burt, 1941, p. 343) is used as an index of similarity, the resulting values are: A, .92; B, .62; C, .51; D, .61; E, .81. Using either criterion, the results, with the possible exception of Factor C, are deemed satisfactory.

The similarity of the factors between hospitals can be further judged by reference to Tables 1 through 5, where the factor loadings of both hospitals for the most highly loaded items are presented. In each table, the items are presented in decreasing order of their root mean square loadings over the two hospitals (which are, however, not given) down to the level of .40 in Table 1 and about .30 in Tables 2–5.[5] Decimal points are omitted. Positive loadings indicate agreement, negative loadings disagreement.

[5] The only noteworthy inconsistency in loading occurs for Item 13 which loads Factor A heavily (−.72) in Hospital I and Factor C even more heavily (.88) in Hospital II (Tables 1 and 3). Note that this is not a *logical* inconsistency; the item fits both interpretations.

TABLE 2

FACTOR B—BENEVOLENCE

Loading		Item
Hospital I	Hospital II	
.41	.44	28. Even though patients in mental hospitals behave in funny ways, it is wrong to laugh about them.
−.42	−.41	54. There is little that can be done for patients in a mental hospital except to see that they are comfortable and well fed.
.51	.35	41. Anyone who tries hard to better himself deserves the respect of others.
.30	.41	37. Patients in mental hospitals are in many ways like children.
−.41	−.26	35. To become a patient in a mental hospital is to become a failure in life.
−.42	−.07	42. Our mental hospitals seem more like prisons than like places where mentally ill people can be cared for.
.26	.37	4. Although they usually aren't aware of it, many people become mentally ill to avoid the difficult problems of everyday life.
.12	.43	38. More tax money should be spent in the care and treatment of people with severe mental illness.
.27	.34	39. Although some mental patients seem all right, it is dangerous to forget for a moment that they are mentally ill.
.30	.29	60. Every person should make a strong attempt to raise his social position.

Factor A—Authoritarianism. The conception of mental patients projected by this factor is one which stresses their difference from and inferiority to normal people (Items 34, 16, 26, 29, 22, 8, 52, 39, 24, and 13). Several items present popular (and contradictory) ideas about the causality of mental illness (Items 14, 12, 2, 6, and 66).

This view of the mental patient exists in a context which results in the five items (Items 27, 31, 65, 68, and 70) taken from the California F Scale (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950) having high loadings on this factor; indeed, the two items giving the largest loadings on Factor A are from the F Scale. These reflect the characteristic submission to authority (Items 65, 68, and 70) and "anti-intraceptiveness" (Items 11, 27, 6, and 66) of the authoritarian. In fact, Items 6 and 66 indict thinking (bad or too much) as playing an etiological role in mental illness. The handling of the hospitalized mentally ill advocated here, namely, high fence, guards, locked doors (Items 59 and 50) bears the coercive authoritarian stamp.

We have named the common factor defined by the above elements Authoritarianism. It presents a gestalt made up of authoritarian submission and anti-intraception with a view of the mentally ill as a class inferior to normals and requiring coercive handling. A most interesting possibility suggests itself that for the authoritarian personality within the mental hospital, the mentally ill may function as a negatively stereotyped outgroup in much the same way as do racial, religious, or political minority groups in the larger society. Indeed, Factor A is essentially identical with what the F Scale measures. This is demonstrated by the fact that the correlation between Factor A scores based solely on items having mental illness content (see below) with scores obtained by summing the 6 F Scale items is .86, and exceeds unity when corrected for attenuation.[6]

Factor A is a dominant factor which accounts for an average of 47% of the common variance in the two hospitals. This incidentally suggests that it is also essentially what is measured by the CMI (Gilbert & Levinson, 1956), since the total score obtained by adding together such items will be richly saturated in the largest common factor running through the item set, at the expense of less extensive common factors. The substantial correlation between CMI and F was demonstrated by Gilbert and Levinson (1956).

Factor B—Benevolence. Factors B (Table

[6] The role of acquiescence set in Factor A was not explicitly studied. However, its importance cannot be great in the light of the fact that in Hospital I, Item 13 gives rise to a *negative* loading of .72, i.e., those otherwise high on Factor A *disagree* with high consistency with this item.

?) and C (Table 3) are both "promental patient," but they are so from rather different perspectives, as evidenced by their near zero shared variance (Table 6). The positive pole of B represents a benevolence toward patients which arises from a moral point of view, a sort of Christian kindliness toward unfortunates. Mental patients are seen *not* as failures in life (Item 35), but rather are like children (Item 37), and it is wrong to laugh about them (Item 28). Still, it is dangerous to forget for a moment that they are mentally ill (Item 39), a point of view which is also part of Factor A. They are looked upon as an obligation of society (Item 38), and more than mere custodial care should be offered them (Item 54). Still, mental hospitals are *not* like prisons (Item 42), in contrast with the Factor C view. Finally, Items 41 and 60 project the traditional value of self-improvement, which in this context suggests its advocacy to mental patients (but note that Item 60 also loaded Factor A). Factor B accounts for an average of 15% of the variance shared by the items.

In our earlier reports on this investigation (Cohen & Struening, 1959, 1960), we qualified "benevolence" by the adjective "unsophisticated," which was not meant pejoratively, but intended to distinguish this factor from Factor C. Others close to our work have responded to other aspects of this factor and have suggested such names as Parental Benevolence, Moral Benevolence, and Humanistic Benevolence. All these qualifiers can be supported by the item loadings. We have settled on the "common factor" of these interpretations, Benevolence, as the verbal tag to assign this factor. What is intended is a kindly, paternalistic view towards patients whose origin is in religion and humanism rather than a scientific or professional dogma. It is encouraging and nurturant, but still acknowledges some fear of patients. Further support of this interpretation will be offered in the later discussion of its demographic correlates.

Factor C—Mental Hygiene Ideology. Factor C involves an orientation toward mental patients which is also positive, but embodies the tenets of the creed of modern mental health professionals (Table 3). The items here are more factually descriptive of the mentally ill; e.g., they are willing to work (Item 23), capable of skilled labor (Item 53), many would remain with unlocked doors (Item 55), ex-patients could be trusted as baby sitters (Item 61), there is much mental

TABLE 3

FACTOR C—MENTAL HYGIENE IDEOLOGY

Loading		Item
Hospital I	Hospital II	
48	25	38. More tax money should be spent in the care and treatment of people with severe mental illness.
45	28	44. If our hospitals had enough well trained doctors, nurses, and aides, many of the patients would get well enough to live outside the hospital.
[a]	37	23. Most mental patients are willing to work.
26	37	61. Most women who were once patients in a mental hospital could be trusted as baby sitters.
40	19	53. Many mental patients are capable of skilled labor, even though in some ways they are very disturbed mentally.
39	20	25. Many people who have never been patients in a mental hospital are more mentally ill than many hospitalized mental patients.
31	[a]	69. The death penalty is inhuman and should be abolished.
31	31	55. Many mental patients would remain in the hospital until they were well, even if the doors were unlocked.
10	41	42. Our mental hospitals seem more like prisons than like places where mentally ill people can be cared for.
37	16	21. Mental illness is an illness like any other.
14	88	13. The patients of a mental hospital should have something to say about the way the hospital is run.[b]

[a] Item omitted from the analysis.
[b] Not in root mean square order because of inconsistency in loading.

illness outside of hospitals (Item 25). Implicit in this conception is the idea that mental patients are much like normal people, differing from them perhaps in degree, but not in kind, in sharp contrast with the Factor A orientation. This view is partially summarized in "Mental illness is an illness like any other" (Item 21). The efficacy of treatment is strongly believed in (Item 44), as is the assumption by society of its obligations to the mentally ill (Item 38), the latter shared with Factor B. In contrast with Factor B, the item likening mental hospitals to prisons (Item 42) is endorsed here. Finally, opposition to the death penalty (Item 69) and advocacy of "hospital democracy" (Item 13) round out the picture. Factor C accounts for an average of 14% of the shared variance.

Because of the concordance of the elements of Factor C with the tenets of the mental hygiene movement, this factor was named Mental Hygiene Ideology. This interpretation is further supported by its correlation with occupation and education (see below).

Factor D—Social Restrictiveness. Factor D, which accounts for an average over the two hospitals of 14% of the shared variance, emphasizes the desire to restrict mental patients both during and after hospitalization for the protection of society, particularly the family unit (see Table 4). Thus, they should not be allowed to marry after hospitalization (Item 52), should be easily divorced upon hospitalization (Item 48); indeed a woman "would be foolish" to marry an ex-mental patient (Item 40). Their parental rights should also be restricted by forbidding their small children from visiting them (Item 20) and by sterilization (Item 16). Posthospital employment as baby sitters should be closed to them (Item 61). Mental patients should be denied the right to vote (Item 57). All these items share the belief that mental illness is a threat to society which must be met by some restriction in social functioning both during and following hospitalization; Factor D was accordingly named Social Restrictiveness. The other items loading this factor account for the basis of the restrictive orientation. Thus, mental patients are seen as socially deficient: they do not care how they look (Item 64) and do not make wholesome friendships (Item 51). Furthermore, the outlook for their future is hopeless: "There is little that can be done" for them (Item 54)—they "Will never be their old selves again" (Item 43).

One notes a certain similarity in outlook between Factor D and Factor A, and, in fact,

TABLE 4

FACTOR D—SOCIAL RESTRICTIVENESS

Loading		Item
Hospital I	Hospital II	
49	52	40. A woman would be foolish to marry a man who has had a severe mental illness, even though he seems fully recovered.
45	49	52. Although patients discharged from mental hospitals may seem all right, they should not be allowed to marry.
36	55	43. People who have been patients in a mental hospital will never be their old selves again.
13	50	54. There is little that can be done for patients in a mental hospital except to see that they are comfortable and well fed.
35	33	48. The law should allow a woman to divorce her husband as soon as he has been confined in a mental hospital with a severe mental illness.
−17	−42	61. Most women who were once patients in a mental hopsital could be trusted as baby sitters.
38	22	20. The small children of patients in mental hospitals should not be allowed to visit them.
18	37	64. Most patients in mental hospitals don't care how they look.
16	37	16. All patients in mental hospitals should be prevented from having children by a painless operation.
−27	−29	51. Many patients in mental hospitals make wholesome friendships with other patients.
27	[a]	57. Anyone who is in a hospital for a mental illness should not be allowed to vote.

[a] Item omitted from analysis.

Loading

Hospital I	Hospital II
56	48
53	47
52	47
40	30
35	23
32	25
27	28

inspection of the graphed
cates that were the rota
would be some correlation
(see Table 6 and discus
two factors are nevertheles
emphasis of restrictiveness
family the distinguishing

Factor E—Interperson
E is highly specific in its
consistent between the
Table 5). Its positive
strongly a belief that m
from interpersonal expe
deprivation of parental
during childhood (Items
more generally the mental
loco parentis (Items 9 a
less central is a belief tha
ior is motivated; e.g., m
avoidance of problems (
people seldom become me
Accordingly, Factor E has
personal Etiology. It accou
shared variance in each h

Factor Scores

To obtain measures of
which loaded each factor
which had mental illness
posited by assigning integ
to six to the six alternat
disagree to strongly agree
loaded items, and in rev
negatively loaded items. It
standardized, since their
did not vary greatly, nor

TABLE 5

FACTOR E—INTERPERSONAL ETIOLOGY

Loading		Item
Hospital I	Hospital II	
56	48	3. Mental patients come from homes where the parents took little interest in their children.
53	47	5. The mental illness of many people is caused by the separation or divorce of their parents during childhood.
52	47	1. If parents loved their children more, there would be less mental illness.
40	30	9. If the children of mentally ill parents were raised by normal parents, they would probably not become mentally ill.
35	23	33. If the children of normal parents were raised by mentally ill parents, they would probably become mentally ill.
32	25	4. Although they usually aren't aware of it, many people become mentally ill to avoid the difficult problems of everyday life.
27	28	67. People who are successful in their work seldom become mentally ill.

inspection of the graphed factor plots indicates that were the rotation oblique, there would be some correlation between A and D (see Table 6 and discussion below). These two factors are nevertheless distinct with the emphasis of restrictiveness to protect the family the distinguishing feature.

Factor E—Interpersonal Etiology. Factor E is highly specific in its reference and highly consistent between the two hospitals (see Table 5). Its positive pole reflects quite strongly a belief that mental illness arises from interpersonal experience, particularly deprivation of parental love and attention during childhood (Items 3, 5, and 1), or more generally the mental health of those *in loco parentis* (Items 9 and 33). Somewhat less central is a belief that abnormal behavior is motivated; e.g., mental illness is an avoidance of problems (Item 4), successful people seldom become mentally ill (Item 67). Accordingly, Factor E has been named Interpersonal Etiology. It accounts for 10% of the shared variance in each hospital.

Factor Scores

To obtain measures of each factor, items which loaded each factor most highly and which had mental illness content were composited by assigning integral values from one to six to the six alternatives from strongly disagree to strongly agree for the positively loaded items, and in reverse order for the negatively loaded items. Item scores were not standardized, since their standard deviations did not vary greatly, nor were weighted as a function of their factor loadings, since it has been demonstrated that this refinement has little advantage over the simpler unit weights (Trites & Sells, 1955). Each item used for factor scoring was assigned to only one factor, in order to keep the factor scores experimentally independent. Constants were added, as necessary, to avoid negative scores.

The psychometric characteristics of the factor scores are given in Table 6. The reliability coefficients given are of the internal consistency type, equivalent to those obtained by the generalized Kuder-Richardson Formula 20 (Tryon, 1957), and are to be understood as giving an estimate of the correlation one would obtain from composites of the same number of items drawn randomly from the same item domain (Tryon, 1957). They are deemed quite satisfactory for our research purposes, possibly excepting Factor D. However, in the light of Factor D's higher factor validity coefficients, and significant demographic correlates (see below), its reliability is apparently adequate.

The factor validity coefficients were computed by means of Thomson's (1951, pp. 197–199) pooling square. The resulting value represents the correlation coefficient between the sum of a set of item scores and the factor they share in common. The validity coefficients are also quite satisfactory for the purposes of group comparisons.

Although the abstract factors defined by the quartimax rotation are mutually independent, the factor *scores* show some small correlations (Table 6). In both hospitals one

TABLE 6

RELIABILITIES, FACTOR VALIDITIES, AND INTERCORRELATIONS OF THE OMI FACTOR SCORES IN HOSPITALS I AND II

Scale	n^a	Reliability		Validity		Intercorrelations[b]				
		I	II	I	II	A	B	C	D	E
A	13	82	76	89	73		−19	−39	22	16
B	11	49	62	67	76	−20		11	−15	03
C	11	60	61	56	65	−26	28		−28	25
D	9	21	23	43	67	20	−12	−30		−02
E	5	60	59	78	66	08	14	24	05	

Note.—Decimal points omitted.
[a] Number of items.
[b] Hospital I above diagonal; Hospital II below.

finds a weak link between Authoritarianism (Factor A) and Social Restrictiveness (Factor D), another between Benevolence (Factor B) and Mental Hygiene Ideology (Factor C), and negative correlations across these two pairs. Interpersonal Etiology (Factor E) has small correlations with Mental Hygiene Ideology (Factor C), but, perhaps surprisingly, is uncorrelated with Authoritarianism (Factor A) and Social Restrictiveness (Factor D). It must be stressed that these relationships are quite small; of the 20 correlations in the two hospitals, only one exceeds .30.[7] One must be prepared to find all patterns of high and low scores on the five factors; no factor score predicts another to any material degree. Respondents low on Authoritarianism are no more likely to accept Interpersonal Etiology than those high on this factor. Respondents high on Mental Hygiene Ideology are only slightly more likely to reject Social Restrictiveness than those low on this factor.

Demographic Correlates

To study the relationships between the OMI factors and occupation, education, age, and sex, each hospital sample was broken down into subgroups for each demographic variable and simple analyses of variance performed on each OMI factor score. In addition to determining the significance of the departure from the overall null hypothesis, each analysis was extended to yield an eta coefficient of nonlinear correlation to make possible an assessment of the *degree* of association between the demographic variable and factor score involved.[8] Where applicable, the form of the regression of factor on demographic variable was determined.

Occupation. Table 7 presents the mean factor scores for 10 occupational groups who have daily patient contacts. Physical Medicine and Rehabilitation and Special Services are charged with carrying on "activity" therapies with patients. The mental health professional groups include residents and trainees. The Physicians groups are made up predominantly of nonpsychiatric physicians, but include dentists and chaplains. The occupational groups are significantly ($p < .01$) differentiated on all factors in both hospitals, excepting only Social Restrictiveness in Hospital II. As can be seen from Table 7, the subgroup differences are particularly marked on Authoritarianism (Factor A), where the eta values .65 and .50 indicate (through their squares) that 42% and 25% of the score variance is associated with occupation subgroup membership. The correlations with occupation are also substantial for Benevolence (Factor B) and Mental Hygiene Ideology (Factor C), but noticeably smaller for the remaining two factor scores.

The sheer volume of data in Table 7 precludes detailed discussion, but certain highlights may be noted:

1. On Authoritarianism (Factor A), as might be expected, psychologists, psychiatrists, and social workers have low means, while those of aides and kitchen personnel

[7] A reviewer points out that these correlations are attenuated by the measurement error variance in the factor scores. This must be granted. Still, when they are corrected for attenuation, they reflect less than 50% shared variance in all but two or three instances.

[8] In the case of sex, the analogous t ratios and point biserial correlation coefficients were found.

MEANS AN

Occupation	N_1
Clerical	19
Physical Medicine and Rehabilitation	27
Nurses	35
Aides	254
Psychiatrists	13
Social Workers	13
Physicians	11
Psychologists	36
Special Services	18
Kitchen Workers	94
(Total Sample)	(541
F^a	
p	
eta	

[a] For Hospital I $df = 9/510$;

are high. Gilbert and Le
exactly parallel occupat
the CMI, which again
larity between their scal

2. Psychologists again
treme on Benevolence (
high end is taken by Sp
nel, nurses, and ward cl
latter finding does not
gists are malevolent—it
istic-paternalistic perspe
which they reject.

3. Aides and kitche
lowest means on Ment
(Factor C), and psych
ers, and Hospital I ps
highest means, a state

MEANS A

Years of education	N_1
− 8	46
9–11	129
12	144
13–15	60
16–18	79
19−	58
F^a	
p	
eta	

[a] For Hospital I $df = 5/511$;

TABLE 7

MEANS AND ANALYSIS OF VARIANCE RESULTS OF OMI FACTOR SCORES BY OCCUPATIONAL GROUPS IN HOSPITALS I AND II

Occupation	N_I	N_{II}	Factor A		Factor B		Factor C		Factor D		Factor E	
			I	II	I	II	I	II	I	II	I	II
Clerical	19	33	18.8	19.3	44.3	46.3	34.1	36.4	20.3	19.3	19.3	21.7
Physical Medicine and Rehabilitation	27	25	19.6	23.8	44.3	44.1	35.8	38.5	20.7	18.7	19.7	19.3
Nurses	35	53	16.5	21.2	45.5	45.1	36.5	34.1	20.5	20.8	20.1	19.6
Aides	254	317	28.4	27.8	43.7	43.8	33.0	32.5	19.1	20.3	18.6	19.1
Psychiatrists	13	5	13.4	14.8	43.8	40.8	38.7	35.6	20.8	18.8	21.2	24.2
Social Workers	13	6	13.4	16.5	40.9	41.0	37.9	41.5	19.2	19.7	16.9	21.0
Physicians	11	10	19.5	22.2	42.5	43.2	34.1	37.6	23.4	23.5	20.4	21.4
Psychologists	36	19	11.9	15.0	37.4	38.8	43.6	40.1	16.5	18.2	21.6	23.1
Special Services	18	14	14.9	17.5	45.8	44.6	36.9	37.1	19.6	19.0	16.9	19.2
Kitchen Workers	94	120	31.1	31.3	42.0	41.8	33.0	32.9	19.9	19.6	20.0	18.2
(Total Sample)	(541)	(653)	(24.8)	(26.4)	(43.1)	(43.5)	(34.6)	(33.6)	(19.4)	(20.0)	(19.2)	(19.2)
F[a]			41.1	22.0	7.9	5.7	14.3	9.1	3.5	1.8	2.6	3.7
p			.01	.01	.01	.01	.01	.01	.01	*ns*	.01	.01
eta			.65	.50	.35	.28	.45	.35	.24	.16	.21	.23

[a] For Hospital I $df = 9/510$; for Hospital II $df = 9/592$.

are high. Gilbert and Levinson (1956) found exactly parallel occupational differences on the CMI, which again attests to the similarity between their scale and Factor A.

2. Psychologists again occupy the low extreme on Benevolence (Factor B), while the high end is taken by Special Service personnel, nurses, and ward clerical personnel. This latter finding does not imply that psychologists are malevolent—it is rather the moralistic-paternalistic perspective of Factor B which they reject.

3. Aides and kitchen workers have the lowest means on Mental Hygiene Ideology (Factor C), and psychologists, social workers, and Hospital I psychiatrists have the highest means, a state of affairs inversely paralleling that of Authoritarianism (Factor A).

4. While Social Restrictiveness (Factor D) does not spread the groups apart strongly, it is striking to find in each hospital that the physician subgroup is by far the highest, while psychologists are the lowest.

5. Finally, and quite predictably, psychologists and psychiatrists most strongly accept Interpersonal Etiology while aides and kitchen workers tend to be low.

Differences in orientation towards the mentally ill among the various occupational groups are striking. Typically, the mental health professionals are at opposite poles from the aides, who provide the quantitative bulk of the "normal" social atmosphere for

TABLE 8

MEANS AND ANALYSIS OF VARIANCE RESULTS OF OMI FACTOR SCORES BY YEARS OF EDUCATION IN HOSPITALS I AND II

Years of education	N_I	N_{II}	Factor A		Factor B		Factor C		Factor D		Factor E	
			I	II	I	II	I	II	I	II	I	II
– 8	46	120	31.7	31.5	42.4	42.6	33.2	31.8	19.4	19.6	20.2	18.4
9–11	129	161	29.8	29.8	42.7	43.1	33.2	32.9	19.2	19.9	18.7	18.8
12	144	177	27.9	25.5	44.0	43.9	33.0	33.3	19.4	20.3	19.4	18.9
13–15	60	86	22.4	24.2	45.8	45.5	33.9	33.7	19.7	20.4	18.7	20.1
16–18	79	62	15.8	19.0	43.2	44.2	36.8	37.8	20.7	19.8	18.8	20.6
19–	58	27	13.1	15.3	40.6	41.0	40.9	38.6	18.2	19.0	21.1	23.3
F[a]			71.8	44.5	6.7	5.5	19.2	13.1	2.0	0.8	2.4	6.5
p			.01	.01	.01	.01	.01	.01	*ns*	*ns*	.05	.01
eta			.64	.51	.25	.20	.40	.31	.14	.08	.15	.22

[a] For Hospital I $df = 5/511$; for Hospital II $df = 5/628$.

patients, the nurses falling in between (but note that Factors B and D depart from this pattern). The existence of such diversity of view attests to a host of problems in communication in the occupational hierarchy and consequently in patient care.

Education. This variable is related to occupation and parallels it for the OMI factors (see Table 8). Again the two hospitals are very similar. Since years of education is an ordered variable, it is possible to consider the shape of the regression of factor score on education, as well as the significance and degree of relationship.

1. Authoritarianism (Factor A) shows a sharp negative linear relationship with education of the order of .6 and .5 for the two hospitals, quite similar to the degree of relationship provided by the highly correlated occupation grouping. This is quite in keeping with the repeated findings of negative correlation of education and F Scale score, which, as already noted above, is considered to be essentially the same factor as A.

2. Benevolence (Factor B) has a weaker but significant inverted U shaped relationship with education in both hospitals, the peak coming in the "some college" (13–15) group. It drops off at higher levels, again presumably because of increased rejection of the moralistic basis for the benevolence rather than the benevolence itself. The low level of Factor B at elementary and high school levels is puzzling. Perhaps the Authoritarianism at these educational levels precludes Benevolence, just as Mental Hygiene Ideology at high educational levels precludes it.

3. Education is somewhat more strongly related to Mental Hygiene Ideology (Factor C), accounting for about 10–15% of its variance. The regression is such that the means remain constant from elementary through some college education and then rise sharply with graduation and postgraduate training. This finding in conjunction with the related finding on occupation supports the interpretation of Factor C as the mental health professional's creed.

4. Social Restrictiveness (Factor D) fails to relate significantly to education and was slightly (Hospital I) and nonsignificantly (Hospital II) related to occupation. Although this is psychometrically the weakest of the factor scores, it nevertheless has enough factor validity to disclose an important relationship where it exists, given the large samples studied here (see age and sex below). The conclusion that Factor D does not relate to education, therefore, seems justified and further helps distinguish it from Authoritarianism, which is strongly related to education (and occupation).

5. Although significant, the relationship between years of education and Interpersonal Etiology (Factor E) is weak. Insofar as it can be discerned, in Hospital II the regression is positive with a sharp rise at the postgraduate level; in Hospital I the latter rise also appears, but it zigzags anomalously at lower levels.

Age. The OMI factor scores do not relate as strongly to age as they do to occupation and education.[9] Neither Benevolence (Factor B), nor Mental Hygiene Ideology (Factor C), nor Interpersonal Etiology (Factor E) are significantly related to age in either hospital, and the remaining factors are not strongly related.

1. Age accounts for about 5% of the variance on Authoritarianism in both hospitals, but does so in an unanticipated U shaped regression whose trough comes in the thirties. The conservatism of middle age is an often observed phenomenon, but no reason comes to mind for the Authoritarianism (as high or higher) of the teens and twenties. This may merely be a peculiarity of the age-education-occupation structure of these two mental hospitals which deserves no general inferences. In any case, the relationship is a weak one.

2. The relationship of age to Social Restrictiveness is even weaker and takes the form of a slow increase in score with age.

Sex. Like age, sex is only weakly related to the factor scores.[9] The sex differences on Authoritarianism (Factor A), Mental Hygiene Ideology (Factor C), and Interpersonal Etiology (Factor E) are not significant. The

[9] Tables giving these detailed findings have been deposited with the American Documentation Institute. Order Document No. 7057 from ADI Auxiliary Publications Project, Photoduplication Service, Library of Congress; Washington 25, D. C., remitting in advance $1.25 for microfilm or $1.25 for photocopies. Make checks payable to: Chief, Photoduplication Service, Library of Congress.

These tables are also available from the authors.

others are significant in bo
of little consequence, in no i
ing for as much as 3% of th

1. Women show somewha
lence (Factor B) scores on
men, a fact that accords wi
role. (It should be recalled
nurses were the highest occu
on this factor and account fo
third of the sample of wome

2. Women also show some
cial Restrictiveness (Factor
but this may be an artifact
items on this scale either exp
and 48) or implicitly (Item
in terms of what women shou
relationships with male menta
the shoe on the other foot
might disappear or be reverse

DISCUSSION

The Gilbert-Levinson (195
interpreted in the light of th
factor analysis. Their initia
custodialism-humanism has
and D at the custodialism pol
plication E at the humanism p
tered all along it. The tender
tarianism (Factor A) to dom
of items such as they and we
their Likert method of proce
their final CMI scale being la
of Factor A. This leaves the o
we have uncovered unaccoun
scheme.

The importance of this omi
present, be fully assessed, si
the other dimensions with reg
cacy of patient care has not y
We speculate, however, that
thoritarianism is important in
pital, family, and community
its relation to the well-being
tients. For example, we think
lence (Factor B) is an impor
psychiatric aides and nurses, w
bulk of the patients' contact w
and represent the hospital to
lieve that present educational
psychiatric aides seek to inc
the ideology of the mental
ment (Factor C), which is a

hers are significant in both hospitals, but little consequence, in no instance account- for as much as 3% of the variance.

1. Women show somewhat higher Benevo- ice (Factor B) scores on the average than n, a fact that accords with their cultural e. (It should be recalled, however, that ses were the highest occupation subgroup this factor and account for a quarter to a d of the sample of women.)

. Women also show somewhat higher So- Restrictiveness (Factor D) than men, this may be an artifact. Several of the ns on this scale either explicitly (Items 40 48) or implicitly (Item 52) are couched erms of what women should do in marital tionships with male mental patients. Were shoe on the other foot, this difference nt disappear or be reversed.

DISCUSSION

ne Gilbert-Levinson (1956) CMI can be preted in the light of the results of the r analysis. Their initial conception of dialism-humanism has our Factors A D at the custodialism pole, C and by im- ion E at the humanism pole, and B scat- all along it. The tendency for Authori- ism (Factor A) to dominate collections ms such as they and we used taken with Likert method of procedure resulted in final CMI scale being largely a measure ctor A. This leaves the other dimensions ve uncovered unaccounted for in their e.

importance of this omission cannot, at t, be fully assessed, since the role of her dimensions with regard to the effi- f patient care has not yet been studied. eculate, however, that more than Au- rianism is important in regard to hos- amily, and community atmosphere and ation to the well-being of mental pa- For example, we think that Benevo- Factor B) is an important quality in tric aides and nurses, who provide the the patients' contact with "normals," present the hospital to them. We be- hat present educational programs for tric aides seek to inculcate in them ology of the mental hygiene move- Factor C), which is at least foreign, quite possibly anxiety provoking, and in any case not very effective. This probably accounts for the failure of the Cummings' (1957) community education effort; the conception "Mental patients are different from you only in degree," a Factor C idea, proved flatly unacceptable to the community. Perhaps the message, "Mental patients are poor unfortunates whom we should help out of simple human kindness," a Factor B formulation, might have proven more effective, despite its condescending sound in the ears of professionals.

Such speculation as the above, although interesting and perhaps even exciting, is not meant to replace the empirical work that needs to be done, but merely to provide a basis for generating hypotheses for such work.

The substantial differences in factor scores found as one goes up the occupational-educational hierarchy of the two mental hospitals studied, particularly in the light of the consistency found between these widely separated hospitals, merits thoughtful attention. At least some of the friction found between professional groups in hospitals and some of the failures in communication between those who give orders and those who carry them out is in manifestation of widely separate views of the nature and progress of mental illness held by different occupational groups. The diagnosis of this problem (as in psychiatry generally) leads to no immediate sure-fire treatment. Whether educational efforts within the hospital and community can be effective is problematic. If, for example, Authoritarianism is characterologically imbedded, as the California group suggests (Adorno et al., 1950), no lecture series will dispel it. Perhaps, in hospitals at least, personnel selection on attitude factor scores may prove salutary for patients. But this should be preceded by empirical evidence concerning the relationships we all assume.

The present report describes the first step in a larger investigation. Work in progress includes assessment of opinion in the larger community, in the families of mentally ill veterans, and the relationship between personnel OMI factor scores and patient release rates over the 12 mental hospitals of the Veterans Administration's Psychiatric Evaluation Project.

SUMMARY

A collection of 70 Likert-type opinion items, largely relevant to the mentally ill, was administered to most of the employees having frequent contacts with patients in two large, geographically widely separated Veterans Administration neuropsychiatric hospitals (N = 541 and 653). The purpose of this investigation was to identify and measure the salient dimensions underlying these opinions and to begin the exploration of the construct validity of these dimensions by determining their relationships to the respondents' occupation, education, age, and sex. To this end, in each hospital separately, the item intercorrelations were subjected to centroid factor analysis followed by quartimax rotation. Scales were developed to measure each of the five factors identified in the analyses, and the resulting factor scores were related by analyses of variance to occupation, education, age, and sex. The results of all analyses in the two hospitals were the same in all essential regards; thus, the following conclusions apply to both:

1. Five salient opinion-attitude dimensions were identified. Therefore, attempts to work in this area with single scales (e.g., "pro-anti" mental patient, custodialism-humanism) oversimplify this domain. Further, correlations among factor scores for these dimensions are trivial or zero. The five factors were:

Factor A—Authoritarianism. This is clearly identified with the California F Scale and includes its authoritarian submission and antiintraception combined with a view of the mentally ill as an inferior class requiring coercive handling. It accounts for about half the communal variance among the items, the other factors sharing the remaining half about equally.

Factor B—Benevolence. A kindly, paternalistic view towards patients whose origins lie in religion and humanism rather than science.

Factor C—Mental Hygiene Ideology. A positive orientation which embodies the tenets of modern mental health professionals and the mental hygiene movement whose leitmotif is "mental illness is an illness like any other."

Factor D—Social Restrictiveness. The central belief here is that the mentally ill are a threat to society, particularly the family, and must therefore be restricted in their functioning both during and after hospitalization.

Factor E—Interpersonal Etiology. A circumscribed factor whose positive pole reflects the belief that mental illness arises from interpersonal experience especially deprivation of parental love during childhood.

2. Among the demographic variables, occupation and the closely related variable of education are substantially related to factor scores, particularly Factors A, B, and C. Education gives rise to curvilinear relationships with Factors B and C.

3. Age and sex show either zero or weak relationships with the factor scores.

REFERENCES

ADORNO, T. W., FRENKEL-BRUNSWIK, ELSE, LEVINSON, D. J., & SANFORD, R. N. *The authoritarian personality*. New York: Harper, 1950.

BURT, C. *The factors of the mind*. New York: Macmillan, 1941.

COHEN, J., & STRUENING, E. L. Factors underlying opinions about mental illness in the personnel of a large mental hospital. *Amer. Psychologist*, 1959, 14, 339. (Abstract)

COHEN, J., & STRUENING, E. L. Attitudes toward the mentally ill of psychiatric hospital personnel as a function of occupation, education, sex, and age. *Amer. Psychologist*, 1960, 15, 417. (Abstract)

CUMMING, ELAINE, & CUMMING, J. *Closed ranks*. Cambridge: Harvard Univer. Press, 1957.

GILBERT, DORIS C., & LEVINSON, D. J. Ideology, personality, and institutional policy in the mental hospital. *J. abnorm. soc. Psychol.*, 1956, 53, 263–271.

NEUHAUS, J. O., & WRIGLEY, C. The quartimax method: An analytical approach to orthogonal simple structure. *Brit. J. statist. Psychol.*, 1954, 7, 81–91.

NUNNALLY, J. C. The communication of mental health information: A comparison of experts and the public with mass media presentations. *Behav. Sci.*, 1957, 2, 222–230.

STRUENING, E. L. The dimensions, distribution, and correlates of authoritarianism in a midwestern university faculty population. Unpublished doctoral dissertation, Purdue University, 1957.

THOMSON, G. *The factorial analysis of human ability*. (5th ed.) New York: Houghton Mifflin, 1951.

THURSTONE, L. L. *Multiple-factor analysis*. Chicago: Univer. Chicago Press, 1947.

TRITES, D. K., & SELLS, S. B. A note on alternative methods for estimating factor scores. *J. appl. Psychol.*, 1955, 39, 455–456.

TRYON, R. C. Reliability and behavior domain validity. *Psychol. Bull.*, 1957, 54, 229–249.

TRYON, R. C. Cumulative communality cluster analysis. *Educ. psychol. Measmt.*, 1958, 18, 3–35.

(Received March 15, 1961)

Journal of Abnormal and Social Psychology
1962, Vol. 64, No. 5, 361-369

SOME EFFECTS OF PATERNAL ABSENCE ON MALE CHILDREN[1]

JOAN McCORD, WILLIAM McCORD, AND EMILY THURBER

Sociology Department, Stanford University

"That children are best reared in a home with two loving and understanding parents is so obvious as to need no statement" Dorothy Barclay (1959) has commented, typifying current opinion. This viewpoint is so prevalent that it comes close to heresy to question it. Although William Goode (1956), in his comprehensive study of divorce, points to the almost total lack of research on the effects of divorce on children, he concludes:

> At every developmental phase of childhood, the child needs the father (who is usually the absent parent) as an object of love, security, or identification, or even as a figure against whom to rebel safely. . . . It would be surprising if the absence of the father had no effect on the child.

The same view prevails throughout social science. Few empirical studies of child development fail to include the words "intact homes" as a criterion of sample selection. It has long been the tradition to view anxiety as a primary outcome of father absence (Fenichel, 1945; Freud, 1953; Gardner, 1959). Such disorders as alcoholism, homosexuality, and totalitarian tendencies have been attributed to paternal absence (Meerloo, 1956). The high incidence of broken homes among the delinquent population has led to theories which might account for the apparent causative relationship (Burton & Whiting, 1960; Whiting, Kluckhon, & Anthony, 1958).

In research comparing united homes with those in which the father is permanently or temporarily absent, and in psychological and psychoanalytic theory concerning paternal absence, attention has been particularly centered on three areas of personality development: the extent to which the child develops a feminine as opposed to a masculine self-image, the intensity and type of anxiety which he experiences, and the probability of his engaging in antisocial behavior. In the following pages, we will examine various hypotheses in these areas as they relate to a (primarily) lower-class sample of boys. In the analyses, comparisons are made between boys raised in permanently broken homes and those in united homes. By varying the subgroups compared, the dynamic relationship between family disorder and abnormal behavior is assessed.

METHOD

Design of the Research

During the 1930s, Richard Clark Cabot initiated the project, from which the subjects for this study of broken homes were taken, as an adjunct of an experimental program aimed at the prevention of delinquency in Cambridge and Somerville, Massachusetts (Powers & Witmer, 1951).

For an average period of 5 years, between the ages of 10 and 15, 255 boys[2] were observed at home, at school, and at play. Trained social workers, who

[1] This research has been generously supported by the Ella Lyman Cabot Foundation, the Harvard Laboratory of Social Relations, and the National Institute of Mental Health (Grant M-2647).

Additional tables from this study have been deposited with the American Documentation Institute. Order Document No. 7059 from ADI Auxiliary Publications Project, Photoduplication Service, Library of Congress; Washington 25, D. C., remitting in advance $1.25 for microfilm or $1.25 for photocopies. Make checks payable to: Chief, Photoduplication Service, Library of Congress.

[2] Originally 325 boys had been included. Because of heavy case load, 65 boys were retired from the project in 1941, 5 additional boys were dropped because of their death or moving out of Massachusetts. The original sample was selected as follows: Teachers, police, and other officials recommended boys whom they believed showed signs of incipient delinquency. The Cambridge-Somerville Youth Study staff gathered information about them for the matching procedure (one boy to receive treatment and the other to be placed in a control group) so that the criteria of selection consisted in a willingness to participate and ability to find two boys with similar backgrounds in family structure, age, and "general personality." To avoid stigmatizing the boys in the project, an approximately equal number were added who were considered "normal" by the same authorities (again, equally divided between the treatment and the control groups).