# MENTAL HYGIENE AND SOCIO-ENVIRONMENTAL FACTORS

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#### Introduction

HE subject of this paper is one that has come increasingly and compellingly to the attention of psychiatrists and other students of human behavior in recent years. The impact of the social enviornment on the life history, and the relevance of the life history to mental illness, are no longer in serious question as clinical and research findings. But, even though we have come a considerable distance in our systematic understanding of the symptomology and psycho-dynamics of mental disorders, such understanding does not extend to any extent the role played by socio-environmental factors.

The growing recognition of the seriousness of this gap for the etiology and treatment of mental disorders serves also to point to its seriousness for case-finding and prevention, equally important segments of a national mental hygiene program. Thus it seems well to attempt to define the dimensions of the problem, survey its present research status and outline some important areas of needed research for the furture. In so doing, we shall also be defining the role of social science in the mental hygiene movement, a matter too long postponed for the benefit of each.

By mental hygiene we shall mean the knowledge and skills requisite to reduce mental disorders and maintain mental health. These will be specified in more detail shortly when we place the problem in its full epidemiological context. However, at this point it should be made clear that mental hygiene must be concerned with more than the psychoses and with more than hospitalized mental illness. In fact, its great problems are the ambulatory ill and the pre-ambulatory ill (those whose probability of breakdown is high). The appropriations for state aid

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under the National Mental Health Act are entirely for such out-patient and preventive work.

By socio-environmental we shall mean anything that is a product of group life. As such it includes the cultural heritage—the knowledge, attitudes, and behavior patterns acquired through living with others—as well as the network of groups through which the cultural heritage is transmitted and living is effected. It includes not only the consistencies and satisfactions of this way of life but also its inconsistencies and deprivations. It includes not only this way of life as it is found in others but also as internalized within the mentally disordered person himself.

Research in the relations between such socio-environmental factors and mental hygiene is, of course, a part of the larger research problem of the epidemiology of mental disorders, and epidemiology, as Emerson once said, is "whatever affects or bears upon the incidence of disease among the people." (1) This means that case-finding procedures must be available to determine incidence, and knowledge must be available as to what affects or bears upon such incidence. This latter is of two main varieties: (a) knowledge of etiology, that is, how people acquire the disorder; and (b) knowledge of methods to combat the disorder, that is, therapeutic skills for those who are sick and preventive techniques for those who are still well.

Socio-environmental factors are of possible importance in each of these four epidemiological areas: in case-finding, in etiology, in treatment, and in prevention. The problem is to determine whether in fact they are important, and to what extent. In this brief paper we shall not have time to review the existing literature in detail, but shall concern ourselves with the general argument of the studies and their limitations for a well-rounded epidemiology. Then we shall suggest certain lines of epidemiological research that must be developed in the future if a mental health program is to be maximally effective.

# PRESENT RESEARCH STATUS

The Incidence Problem. Case-finding in mental hygiene has

remained a poorly exploited research field. Most studies of prevalence or incidence have been confined to hospitalized psychotics, usually patients of public hospitals, although there have been attempts to go beyond this, notably, nationally conducted censuses, the draft and armed forces data from the two world wars, and occasional studies of population samples.

With reference to the censuses, Lemkau, Tietze, and Cooper in a recent report state the general conclusion that "such attempts have been generally unsuccessful because of widespread failure on the part of informants and enumerators to recognize or report any but the most obvious cases." (2) With reference to studies of sample populations, they report that "poor selection of sample populations and insufficient numbers of cases as well as differences in investigation methods, differences in fundamental concepts, and differences in diagnosis and classification tend to make the available studies of prevalence and incidence of mental disorder basically incomparable." (3)

World War II draft and armed forces' medical data will, when available, provide psychiatric information on a larger proportion of the population than has ever before been provided. However, it must be remembered that these millions of medical records constitute a special population group in men who were determined by law and Selective Service regulations to be non-deferrable and hence available for military service. Moreover, the number of socio-environmental factors available on these tabulations will be few indeed.

Finally, the large number of prevalence and incidence studies of hospitalized psychotics are inadequate for our purposes on many counts. First of all, they deal with only one part of our problem, the seriously ill. Secondly, they deal only with that portion of the seriously ill which becomes hospitalized. Third, they can deal only with those socio-environmental factors which are included on hospital records. The studies are in no sense carefully designed experiments to explore relationships or test hypotheses by means of original data. The researchers have no control over the case-finding process, over the record keeping,

or even the diagnosis. Rather, they are dependent upon the public's uneven willingness to give up its mentally ill members and to support them in institutions, the hospitals' unstandardized record-keeping activities, and the hospital staffs' varied training and skill in classifying disorders. Finally, the studies have not always been made with much perception of sound methodological principles.

They have been confined to describing certain basic population attributes of the hospital population such as age, sex, economic status, residence, marital status, race, nationality, residence, etc. The results show substantial agreement on age, sex, and marital status differentials, (4) some debatable evidence of economic status and ecological differentials, (5) and skepticism with regard to some of the other findings of early studies. For example, early studies showed that there was a higher incidence of psychoses among the foreign born, but, as Malzberg and others have pointed out, the differences were greatly reduced if even one variable—age—was controlled. In the study on New York State institutions, 1929-1931, the crude first admission rate of the foreign born exceeded that of the native born by 96 per cent. With age controls, the excess was reduced to 19 per cent. With residence controls, the excess was reduced to 8 per cent. For males alone, the comparable differentials were 92 per cent, 17 per cent, and 5 per cent, the last being within the range of statistical variability. Thus, Malzberg concludes that "to explain the differences in mental disease between native and foreign born on the basis of biological values is without foundation." (6) Likewise, the early differences found between urban and rural people were later believed to be, in good part at least, figments of the case-finding and analysis processes. (7)

The most pertinent of these studies from an epidemiological point of view are the so-called ecological ones. The possibility of urban patterns for specific psychoses as originally presented by Faris and Dunham in 1938 provide a lead for case-finding and a basis for correlation with socio-environmental factors worthy of serious attention. (8) A number of similar studies

have been made in other cities since 1938, (9) and Dunham, in a recent review, summarizes the major agreements as follows: (10)

- 1. That all types of mental disorder show a pattern of distribution within the city where the high rates are highly concentrated in and around the central business district with the rates declining in every direction toward the periphery.
- 2. That the schizophrenic rates in different cities show a pattern of distribution which is very similar to that of all types of mental disorder.
- 3. That the schizophrenic rates form an expected typical pattern with the concentration of the high rates in areas of low economic status while the manic-depressive rates show a much wider scatter within the city and show a lack of conformity to the concentric-circle pattern.
- 4. That persons residing in areas not primarily populated by persons of their own ethnic or racial groups show much higher rates than those of the numerically dominant group.

The possible value of such studies for case-finding should not be overlooked by those who bring criticisms against the studies' etiological significance. Where the mentally disabled are concentrated is an important case-finding datum in itself. Moreover, how they got there is also important, but whether the process turns out to be "drift" from other areas or gestation within the areas of concentration does not diminish the casefinding value of such areas.

Thus, while statistical studies of prevalence in recent years have been more carefully done and have dispelled some of the inaccurate generalizations of the past, they too have generally suffered under the same methodological handicaps-confinement to hospitalized psychotics and general lack of control over the data used. Regrettably, it must be concluded that the amount of evidence they have produced for the improvement of case-finding is negligible even for psychotics. In the field of neurosis and the milder disorders, pertinent evidence is almost totally lacking.

The Etiology Problem. Research and theorizing concerning the part played by socio-environmental factors in the etiology of mental disorders are scattered through the literature of many scientific disciplines. Furthermore, the literature is fragmentary and presumptive rather than experimentally compelling. But the trend has been twofold: First, to see mental health and mental illness as differing in degree rather than in kind; and, second, to take increasing etiological cognizance of the life history and the socio-environmental context of the life history.

These trends are consistent with the general course of scientific findings regarding human affairs. As the older assumptions of geographic or biological determinism of human behavior have been scrutinized, they have been generally abandoned. It is difficult to believe that not so long ago professional opinion saw delinquency, for example, as the product of climate, heredity, or original sin.

The field of mental disorders is the latest great human problem to yield to this social logic. This is somewhat understandable in that it was defined as a medical field, and the weight of medical training predisposed the doctor to organic hypotheses. But, gradually, evidence has been accumulating within the profession concerning the role of social factors in mental illness, although as Emerson summarized it before the war, "we have incidence rates without any environmental counterparts to our information and we have exquisite vignettes of individual cases without enough of them to paint a picture of the composite." (11)

During this same period considerable coordinate information has been accumulated by the social sciences. Most of it has concerned normal personality development, some has brought new insights to such special types of deviations as demoralization, delinquency, and suicide, and still other has touched directly on mental disorders. Space permits only a cursory review of this literature. (12)

These studies have produced strong presumptive evidence that both the content and the orientation of personality are powerfully influenced by the social setting, and, in the process, have extended our ideas considerably concerning the variability of personality. The evidence for the cultural determination of ideational patterns and special motor patterns has, of course, long been established. No one can read the cross-cultural evidence without considerable respect for man's ingenuity in creating thought and motor patterns and for the resiliency of the organism in acquiring them and operating through them. (13) The evidence for the group management of emotional or temperamental patterns is more recent, but already many of our supposed facts have been seriously questioned. A study of Samoan adolescence has questioned the supposedly universal physiological impact of puberty on emotional stability. (14) Another study has described significant inter-group differences in the temperamental patterns of men and women. (15) Some primitive people have been noted for their violent aggressiveness coupled with considerable dissociated excitement, while others were characterized by submissiveness and emotional con-

Further evidence has pointed to the widespread presence of certain personality configurations in certain societies or societal sub-groups. For example, paranoidal suspiciousness has been reported as pervading the reaction patterns of one group, whereas another is typified by self-effacing, non-competitive, group-minded patterns, and still another by a passivity in ordinary living combined with violent release on exceptional occasions. (16) Moreover, within the same society, patterned differences have been described for various status components, including such special categories as oldest as compared to younger sons. (17) In all such cases the personality configuration has appeared to be consistent with the pattern of institutions through which the people lived. This has led to a consideration of the possible existence of a basic character or personality structure in each society with variations for class and other status differentials, a field in which several anthropologists and psychiatrists are now working. (18)

Evidence at the same time has been similarly accumulating on the relation between the societal setting and personality disorientation. Early and compelling examples of this are to be found in the impact of Western culture on primitive societies, where the proscribing or decay of key elements of the native culture led to general demoralization, despondency, declining industriousness, increased infertility, compulsive clinging to elements of the traditional culture, etc. The deleterious results were of sufficient dimensions to become of concern to European governments. (19) However, much needs yet to be known concerning the relationship between such cultural disorganization and personality. Demoralization is not the only direction that behavior patterns have taken under such circumstances. Uprisings, nationalistic movements, and messianic cults attest to at least temporary responses people have made; and the differential resiliency of cultures to change has been noted. (20)

Examination of ethnographic literature has also suggested that relatively well-integrated cultures can involve considerable psychological cost and can even precipitate personality disturbances. In some cases there are socially permitted escapes for those who find the cost too high; in others, the individual must bear it or break under its strain. (21)

The effect on personality of such cultural situations—goals difficult to achieve, inconsistent demands, and social change—has been the subject of increasing study in our own society. The highest incidence of certain types of mental disorder, of suicide, of crime and other forms of deviant behavior has been found in areas of high mobility and disorganized community life, with their accompanying anonymity and loneliness, although the specific causal nexus is anything but clear. (22) Important insights into Negro character have been associated with caste position and the inaccessibility of majority group goals. (23) Studies of second-generation immigrants have revealed the tensions incident to living between two social worlds. (24) Studies of industry have shown the deleterious effects of technological change and bad management on workers. (25)

But perhaps the most trenchant psychological analysis has come from studies of the middle class, for this great segment of the population has not only been most intimately identified with the main currents of change in the modern world but is also the one best known to the psychiatric clinician. This is the class most affected by the invidious distinction and conspicuous leisure and consumption of Veblen's famous studies. (26) It is the one most involved in the impoverishment of the family institution as described by Ogburn, (27) and in the aggressionproducing and distorting institutional matrix recently described by Parsons. (28) Moreover, such studies as Lvnd's MIDDLE-TOWN, Warner's YANKEETOWN, Horney's Neurotic Personal-ITY OF OUR TIME, and Fromm's Escape from Freedom provide sociological, clinical and historical dissections of this class which are penetrating and challenging. (29)

Additional clinical support of these general trends in social science research comes from the psychiatric experience of the armed forces during the war. In a recent summary of army experience. Menninger says:

Far more impressive in the adjustment process than the history of maladjustment in the individual or his family, or the personality make-up or the internal psychodynamic stresses, was the force of factors in the environment which supported or disrupted the individual. We learned that maintenance of mental health was largely a function of leadership which included the extremely important element of motivating the man to want to do his job and remain loval to his associates and his unit. The absence or weakness of those supportive factors in the presence of many excessive stresses seems to account for many of the psychiatric casualties a large number of which undoubtedly occurred in individuals with a minimal predisposition to mental illness. . . . We seemed to learn anew the importance of the group ties in the maintenance of mental health. We were impressed by the fact that an individual who had a strong conviction about his job, even though his was a definite, unstable personality, might make a remarkable achievement against the greatest of stress. (30)

In a study of Naval experience, Braceland confirms this by saying:

It became obvious early in the course of the war that the most important prophylactics against psychiatric casualties in the military forces were proper individual motivation and high morale in the various units and groups. In retrospect these factors grow in importance and one's attention is drawn to the parts that familial and sociological elements play in military psychiatric disorders. (31)

Thus, the field of the relation between personality and socioenvironmental factors is providing intriguing insights into the etiology of mental disorders. The possible existence of group character structures, the stresses put on man by changing conditions or by the excessive demands of the culture, the sources of and the effect of loneliness and social isolation, and the techniques and effects of social esteem and social punishment on personality, these and many other problems need careful and continued investigation. The escape mechanisms of men under the stress of living are not always in the personally crippling direction of neurosis. We need to know under what configuration of circumstances this type appears.

The Treatment Problem. The use of socio-environmental factors in treatment is in its earliest stages, but considerable support was given to it by the war when the shortage of traditional treatment facilities forced the use of new methods. Moreover, psychiatrists in the armed forces learned, as stated above, the value of group integration in preventing disorders or reducing their incidence.

The main developments can be subsumed under the term "group therapies," including occupational therapy, group psychotherapy of the usual type, psychodrama, musical therapy, etc. To many psychiatrists, these are considered supplementary to individual treatment, and, in some cases, are still considered make-shifts. However, others see in them tools powerful in their own right. As one sponsor of group methods recently said:

Group psychotherapy is always "group" therapy. It is the group itself that becomes the therapeutic agent as a result of the interaction between the individuals who form the group. It is lack of knowledge of the dynamics of the group that at present limits the extent of this new therapeutic procedure. (32)

In recent years group psychotherapies have been experimented with in hospitals, out-patient clinics, and other settings, both singly and in combination. Such questions as the role of the therapist-leader, the type of discussion group, the value of rehearsed, filmed, or unrehearsed psychodrama, the effect of playing one's own role or its opposite are among the many under study. The field needs careful study so that its special areas of therapeutic competence will be known and its rationale better established. In some phases of this research, social scientists should have an important place. Their knowledge of group dynamics gained through long study of normal and experimental groups will provide contexts and insights not available to the clinician.

A final note should be added concerning the primarily lay movements which have developed recently. Alcoholics Anonymous is, of course, the best known and has apparently utilized group dynamics with some success in a field that has been very difficult to handle psychiatrically. Another such experiment, Recovery Incorporated, is composed of posthospitalized mental patients and psychoneurotics. Through group discussion and group psychotherapy sessions, and with a hierarchy of persons ready to help those in distress, considerable success is reported. (33) Such developments need study and evaluation. The lessons to be learned from them may be of great usefulness in a national mental health program.

The Prevention Problem. This field of epidemiological activity is the least developed professionally. The efforts so far have been confined to sporadic experiments in education, and sporadic community rehabilitation programs.

In the field of mental health education, national, state, and county committees on mental hygiene, and private groups, have carried on various programs, but since no intensive evaluation of them has been made, it is difficult to appraise their success. The State Committee on Mental Hygiene in Louisiana has recently initiated a pamphlet series to be sent to new mothers, and the State Committee in Delaware has developed a pamphlet series to be used in the school system. These should be evaluated so that the experience can be made available to other states.

In some communities psychiatrists, social workers, school counsellors, ministers, character-building-agency officials, and others are beginning to form a loose team to teach each other more about the mental health needs of the community and procedures for spotting the problem cases in their early stages.

The counselling services provided by many school systems and industrial organizations is, likewise, a movement that is spreading and has the great advantage of being institutionally centered and close to the people. What these accomplish should be the subject of serious study.

Among the many other developments which might be mentioned, the following are selected because they represent community participation to a peculiar extent.

The first is the Peckham "Pioneer Health Center" project in London. This was established as a family-centered institution, in which periodic health overhaul was accompanied by family health consultations (since, on their theory, the family rather than the individual was the real unit of education), and was also accompanied by self-help recreational opportunities for all members of the family (since, also, on their theory, the integration of the family was of great importance for health). The staff of the Center concludes that the "functional efficiency of individuals increased when their families began to be integrated into the social life around them in the Center," and claim "that integration of the family, developing in mutual synthesis with its environment, will prove to be the biologically economic way of developing human potentiality—the way of health." (34) Such clinical evidence on the importance of social relations for

both physical and mental health warrants careful attention. Its implications are well stated by the medical director of the Peckham experiment: "We can now visualize the essential elements of a technique for the practice of health as something different and distinct from the practice of medicine."

The other is a non-medical movement, the development of what Alinsky calls "People's Organizations." (35) These are organizations of the people in depressed areas to do something about their problems. The first and best known is the "Back of the Yards Neighborhood Council" established in the Chicago stock vards area in 1940 and composed now of representatives from some 185 organizations including churches, schools, business, labor unions, etc. Problems of infant mortality, undernourishment, delinquency, inter-group conflict, playgrounds, labor relations, and household finance, among others, have been tackled on a community-participation basis. Important results are claimed not only in these matters but also in increased self respect and a sense of belonging. (36) The potentiality of such non-medical community reconstruction in communities known to be high in mental disorders, disease, crime, suicide, etc., would seem to be worth serious study for an epidemiology of mental illness. If the disintegration of community life is accompanied by an increase in the incidence of mental disorders, the reintegration of community life would seem to offer the possibility of reducing that incidence.

## SUGGESTED RESEARCH FOR THE FUTURE

The above brief summary of 'where we are' spotlights the conclusion that we have a long way to go before there is a satisfactory epidemiology of mental disorders, and, specifically, before the role of socio-environmental factors is understood. The problem is, "Where do we go from here?"

It is obvious that we need to know more about each of the four problems discussed above. We need more knowledge of the extent of mental disorders, and of their etiology, treatment, and prevention. Moreover, the present situation is most favorable to such research. The public is more concerned about the

field than ever before; the psychiatric profession is more prepared to do research or cooperate with social scientists in joint research ventures than ever before; and the Federal Government has authorized grants to be made for research.

Research in the Extent of Mental Disorders. It must be admitted that our present resources in case-finding are uncomfortably slender. It is time that we began to think in terms of broad case-finding programs and of developing case-finding techniques comparable to those which have proved so successful in other public health programs.

Such studies should proceed on a broad front, utilizing the community-perceptive techniques of the social scientist as well as the clinical perception of the psychiatrist. While the psychiatrist and clinical psychologist are developing better screening and diagnostic devices, the sociologist and social worker should be discovering more about the mental health folklore of the community and the way in which people now handle personality disorders in order to mobilize the community more effectively for participation in the case-finding process. For it is the community rather than the clinician that operates the case-finding process today and that shall continue to be the chief case-finder until such time as diagnostic examinations are given routinely and regularly to all people. Special studies should also be made of the diffusion of a clinic's influence in a community.

As these research developments become effective, that is as case-finding and diagnostic skills increase, social scientists will be better able to study the ecological distribution of mental disorders, which in turn will direct special case-finding attention to areas of high incidence. Moreover, it then would be possible to conduct diagnostic surveys of communities, probably on a sample basis, to predetermine the "extent of the problem" in order that more systematic planning of mental health facilities could be accomplished.

Thus the problems of the immediate future in the basic epidemiological field of case-finding depend in no small part on the clinical and research cooperation of the social scientist.

Research in Etiology. As previously indicated, there are many intriguing ideas concerning the role of society in mental disorders, but their lack of specificity and validation for particular disorders has restricted their usefulness for mental hygiene operations. This is due primarily to lack of coordinated research in this field. On the one hand, clinicians have been too busy looking at the "trees," whereas, on the other, social scientists have been primarily interested in the "forest."

A variety of areas of needed etiological study have been suggested in previous pages, and these will be brought together here. In all of them the cooperation of the clinician and the social scientist is necessary, for it is essential to the problem that both clinical and socio-environmental data be available.

First of all we need intensive socio-clinical studies of various types of mentally disordered people. They should include a clinical history and diagnosis for each member of the family, an analysis of interpersonal constellations within the family, and of the relations of the family and each member to the community. This would enable the researchers to relate the patient's clinical symptoms and the underlying dynamics of his disorder to their broad psychological and social setting. It would also enable them to have, for comparative purposes, the same data on the members of the family not under treatment.

Secondly, we need intensive socio-clinical studies of a longitudinal nature, following individuals from birth, or even from the marriage of their parents, to childhood or adolescence. Again, the studies should encompass clinical data on all significant persons, data on family interpersonal constellations and family social history, and data on the child's psychological and social development.

Third, we need more intensive studies of personality structure and breakdown in a variety of cultural groups. Much of the current interest in cross-cultural personality structure is being pursued without adequate life history and clinical data. Such psychiatric studies of persons imbedded in different class and national cultures would not only provide a basis for validating present psychiatric theory, but would also provide insights into personality formation and structure that might otherwise escape us.

Fourth, attempts should be made to utilize the mass of data available to pediatric clinics or pediatricians in their daily professonal practice. Data from even 100 pediatricians with psychiatric interests, scattered throughout the country, and using standardized records could provide a wealth of important data on such topics as child feeding and training techniques in relation to physical and psychological development.

Fifth, attempts also should be made to utilize the mass of clinical data available to psychiatrists in clinics or private practice. A standardized data sheet which included a diagnostic summary as well as key social data would do much to aid in testing ecological hypotheses and would permit analysis by social class and other significant environmental variables.

Sixth, we should systematically study personality reactions to the many types of abrupt and at times traumatic change in people's lives. Foster home placement; the unemployment, incapacity, or death of the head of the household; divorce; incarceration; and many other standard situations involving a break with the past and serious readjustment can be utilized for this purpose.

And finally, although this does not exhaust the list of socioenvironmental studies that could profitably be mentioned, there is need for more laboratory studies of specific personality mechanisms, such as frustration, repression, the various substitutive processes, etc.

In short, we need more intensive studies of personality development and personality breakdown in various types of cultural environment; we need to draw on the reservoir of data available to medical practitioners; we need to utilize the experimental personality situations occurring every day in our communities; and we need further laboratory studies of specific mechanisms. The problem of adequate research staff is, of course, of great importance, but the problems of interdisciplinary cooperation

and the effective utilization of existing but uncoordinated sources of data are of even greater importance. Leadership in these tasks is sorely needed, for much of the pace of an epidemiological program depends on a satisfactory etiology.

Research in Therapy. It is widely recognized that the field of treatment is in great need of research. At present it represents a wide variety of techniques from lobotomy to psychodrama, whose reliability and validity, for the most part, are poorly determined.

Such research should conceive therapy in its broadest reference. Too often have we paid our respects to the importance of environment only to ignore it in the treatment of the mentally disordered individual. Our research attention should be directed not only to the psychotherapeutic sessions between doctor and patient, but also to the social world out of which the patient came, in which he is now living, and to which he will return. (37) This focus on the "individual in environment" means that psychotherapy should be supplemented in at least some of our experiments by what might be called "sociotherapy," observation and treatment of the patient's relevant social setting, both during his treatment and post-treatment periods.

This is not a new idea as social workers and others have for some time been supplementing the psychotherapeutic process with community liaison. But controlled experiments in such matters have not been made. It is time that we undertook careful evaluations of cooperatively designed projects in which the work with patient and environment is geared together from the onset of the trouble through a period of post-treatment care.

Much carefully controlled research is also needed in the field of psychotherapy itself, particularly in the newer field of the so-called group psychotherapies. A few such projects can be mentioned:

First, we need studies of the role of the therapist in the various psychotherapeutic situations and with various types of illness. What, for example, should be the role of the psychiatrist, the psychiatric social worker, and the clinical psychologist in the

ordinary therapist-patient (i.e., the "two member group") situation, the discussion-group situation, the drama situation, etc.?

Secondly, we need studies directed toward the composition of the group in situations where the therapist is dealing with more than one person at a time. Under what circumstances, for example, should the group be confined to persons with similar neuropsychiatric syndromes, and when does this not matter or may even be less effective than other group composition designs?

In the third place, we need to study what goes on in various types of therapeutic group situations and to evaluate each type of situation (doctor-patient, free group discussion, unrehearsed psychodrama, etc.) for various mental disorders.

In the fourth place, we need to know much more about therapeutic designs combining two or more psychotherapeutic techniques. Under what circumstances, for example, is it most effective to combine individual and "discussion group" techniques, or these with psychodrama?

And, fifth, we need experiments on the most efficient use of clinical staff. What is the most economical and effective combination of psychiatrists, social workers, and psychologists in the treatment process?

One final point at which the study of socio-environmental factors is needed is in the social nature of the mental hospital. Institutional treatment has been carried on with too little recognition of the actual and possible effects of the hospital environment on patients. One such study is now being supported by the Public Health Service and is being done jointly by a psychiatrist and a sociologist. It is hoped that there will be considerable study of this problem, for research in recent years has shown the great importance of human relations in the success of industrial and other institutional programs.

Research in Prevention. Prevention is the ultimate objective of any epidemiological program. But it is a difficult objective as it depends not only on a sound knowledge of etiology but also upon the reorganization of people's attitudes and behavior patterns and, perhaps, on social changes of some significance. In the field of mental hygiene the obstacles are still considerable, but it is possible to suggest areas of research which should be exploited.

The simplest type of project is that concerned with increasing the public's knowledge of good mental health practices. But such projects must be based on an intimate knowledge of the public's present mental health attitudes, knowledge and behavior, and also on a knowledge of the channels of communication through which various segments of the public can best be reached. (38) The former will permit the development of educational materials tailored to the folklore of each cultural level; the latter will point to the network of communication media, social groups, and leaders that are most influential in sponsoring new knowledge in the community.

A second type of experiment would combine such education with adequate counselling service. This is the type of experiment that could be conducted by community out-patient clinics. Various types of counselling service could be tested, including special clinical programs for mothers, school teachers, etc., to discuss mental health matters of interest to them.

A third type of prevention project is suggested by the Peckham experiment. This includes mental health education and counselling in the larger setting of a family-centered health and recreational organization. Questions of its general or specific applicability need to be answered, as do questions concerning the socio-medical dynamics at work.

This same general type of prevention operation—that is, mental health education and counselling in a situation where environmental controls can be modified—is also suggested by the experimental projects that have been started in public school systems and in specific industries. These should be encouraged because of the importance of these institutions in the lives of the people and because they provide more normal settings for such preventive work. In this way we would have a test of the rela-

tive merits of going to the people as against requiring the people to come to us.

A final type of prevention project, suggested by the "Back of the Yards Community Council" movement, places the psychiatric program in a still larger sociological framework, a community-centered social program. Here, again, mental health becomes a by-product of the reduction of social problems and the development of social integration, with the accompanying increase in a sense of belonging and self-respect. This is a largescale attack and cannot be arbitrarily superimposed on a community. However, we could study the examples now under way.

Thus, the field of prevention has many challenging opportunities for research. We need to learn from past success and failure. Then we should support well-designed experiments, combining the skills of the clinician and the social scientist, and aimed to discover the most economical and efficient methods of preventing the wasting of human resources incident to personality malfunction. It may be a fifty-year quest, but we should begin now.

### Conclusion

The subject of this paper is one of the crucial scientific problems of the day. It is also one of the really important practical problems, for as the world increases in complexity and as the sources of power, both political and physical, become more highly concentrated and more easily mobilized, the need for sanity is patent. The world has only recently witnessed the dreadful cruelty and destructiveness that can exist in civilized people, and the strange distortions in human personality that can be wrought by new and at times violent experience. The public has begun to meet this situation through the expansion of Federal mental health programs. It is now up to the relevant professions to make these programs effective.

We have chosen to place the subject of socio-environmental determinants of mental health in its full epidemiological frame of reference. We have tried to show the slim resources presently available for case-finding, the intriguing but unvalidated etiological insights converging from many disciplines, the promising but still experimental techniques for treatment and prevention. And we have suggested lines of future research in each of these fields, stressing the need for more careful research design and the necessity for inter-disciplinary cooperation on a wide scale. The separation of the medical and social sciences has been too long a crippling force in the progress of our field, as has the separation of academic researcher and practitioner. The traditions and status differentials of the past cannot be allowed to shackle the opportunities of the present. In the study of this great frontier of human disability, we must utilize the scientific skills and imagination of all who have delved into the dynamics of the personal or group components of society.

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