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ASSESSING THE NEEDS
(At clinical levels through national statistics by population survey)

by

Dr R. Giel *
WHO Consultant

When the number of psychiatric facilities in a country is limited, few people will feel inclined to assess the exact need in the population for such services. The responsible authorities will assume that the need exists, and they will start to build institutions while being guided by the available funds and by other priorities in the field of health. This is the way in which western society must have developed its mental health services. It certainly explains the great variety in the numbers of psychiatric beds per 1000 of the population, and in the types of care which are available in the European region (1). There is little evidence of any attempt at planning the mental health services on the basis of an assessment of the needs of the population.

In this paper we will try to describe some of the problems of such an assessment. The most important question will be whether it is at all possible to assess the need for psychiatric care, either with regard to its quantitative or its qualitative aspects. In other words, is it possible not only to know the required numbers of personnel, beds and other facilities per 1000 of the population at risk, but also what type of service is to be preferred in a specified situation?

(*) Professor of Social Psychiatry, Psychiatrische Universiteits Kliniek, Academisch Ziekenhuis, Groningen, Holland

When assessing the needs we generally take, or hope to take, our clues from the following kinds of investigations :

I Community surveys, including surveys of high risk groups.

II Psychiatric out- and inpatient surveys.

III General outpatient surveys.

I COMMUNITY SURVEYS

As the community is our primary concern, it appears most logical to sample a population, to examine the individual members, and to classify them with respect to mental disability. From the findings the prevalence rate of mental illness can be calculated, and an estimate of the burden on the community can be made.

A number of investigators have followed this procedure. Leighton e.a.[2], found psychopathology in 40 to 45% of their samples in Nigeria, and 15 to 19% were found to be significantly impaired. Gillis e.a.[3], reported a prevalence rate of 11.8% of the adult coloured population in Cape Peninsula. Bash e.a.[4], found 10% in Iran; and Giel e.a.[5,6,7], 8.6 to 9.1% in Ethiopia and 14.4% in Holland. Tsung-Yi Lin and Standley[8] reported in a review of recent epidemiological studies prevalence rates varying from 1 to 19% of the general population.

We must conclude that the findings are too divergent to be of very much use, and that they do indicate a problem of reliability.

Most often the presence of psychiatric symptoms was determined during or following interviews with the subjects, while the investigators used their own criteria for the rating of psychopathology. Following this, they tried to estimate the degree of disability and the need for treatment.

The problems inherent in this kind of approach can be listed as follows :

1. It appears that many people have some complaint when asked about psychiatric symptoms, while it is not at all certain that they have felt the need to complain about mental ill-health before the interviewer entered their home. External evidence from relatives, the social environment or from medical agencies should confirm the presence of an illness and of a disability. After all, the responses of the interviewed person are as much dependent on his own inner state as on the specific questions he was asked. The interviewer has to some extent determined the responses by his own research preoccupations.

2. We are not too certain about the weight to be attached to mental phenomena within a particular cultural context.

   In the average urban community withdrawal and silence will be considered to indicate illness, but in a religious setting this kind of behaviour may be highly valued.

   Trance states constitute almost obligatory behaviour in a situation in which a cult is being enacted. But in most other circumstances and when used by a hysterical personality, trance states become a nuisance to the environment.

   The above examples are perhaps too exceptional to be of much value, and to illustrate the point more common behaviour should be mentioned. Irritability is very often an early sign of an emotional disturbance. However, the irritability of the surgeon in his operating theatre is not considered a psychiatric symptom, nor is his angry behaviour thought to indicate psychopathy. Yet, a similar irritability exhibited by a psychiatrist in his consulting room would simply be disastrous.

Our problem appears to be that except for some outright psychotic mental phenomena, most other behaviour cannot be judged according to uniformly applicable and objective criteria for the presence of pathology.

3. Another difficulty is that we cannot be certain about the degree of disability, as perceived by the sick individual or his environment, which should suffice to initiate illness behaviour or the enactment of the sick role. There is some evidence [9] that under conditions of poverty the same amount of suffering is less likely to cause illness behaviour than it would in people who can afford to be ill. In summary, the evaluation of symptoms and the assessment of disability does not help us to establish the need for treatment in a patient.

4. The more serious cases of mental illness are relatively rare (some 2 to 3% of the samples already mentioned). In order to detect adequate numbers of cases, a sizable sample has to be screened implying too expensive a survey to be justifiable. Even then the yield may be so limited that valid conclusions cannot be drawn.

Finally, in the developing countries, or in the large urban centres of the developed world a community survey which is based on the sampling of ordinary homes or registered households, might completely fail to trace and expose the chronically psychotic people who usually have become vagrants. They will be the patients who are most in need of treatment but whose whereabouts will not be revealed by the survey.

In summary, community surveys for psychiatric illness do appeal to the mental health planner, as they seem helpful in establishing a basic morbidity rate for mental illness in the general population. However,

such surveys are expensive in relation to the quantity and the quality of information they yield. In addition, they are unlikely to provide much information about the need of people to attend mental health services if these would be available.

II PSYCHIATRIC OUT- AND INPATIENT SURVEYS

The demands made on psychiatric services might give an indication of the needs of the population. Two kinds of investigations have been conducted in this respect :

1. point or perio-prevalence studies of all people under treatment, who are residents of a circumscribed area.
2. case-registers which are kept over a number of years for patients from a circumscribed area [10].

The "Midtown Manhattan" study [11] is an example of the first kind of investigation, particularly its "Treatment Census Operation". The results of this survey, which also included a "Home Interview Survey", were somewhat distressing because of the high prevalence of mental disturbances. The psychiatrists judged 23.4% impaired (either incapacitated or with marked or severe symptoms), and 21.8% moderately disturbed. Another famous study of this nature is the one conducted by Höllingshead and Redlich [12] in New Haven. They established a six months period-prevalence of treated mental illness. They made no attempt to ascertain the prevalence of either untreated or unidentified mentally ill people in the community. The data related only to new cases coming into treatment during the study period. It appeared that 7.9 per 1000 of the population came into treatment, and that the patients were very unequally distributed over the social classes. About three-quarters came from the two lowest social classes, which make up approximately two-thirds

of the population. It is not at all clear whether mental illness was more common in the lowest social classes or coming into treatment is related to someone's position in the class structure. The follow-up of this study, conducted by Myers and Bean [13] showed that admission to a mental hospital was much more likely to occur in case of lower class patients.

The annual incidence of contacts with a psychiatric service because of a new spell of illness was also studied in a Dutch province with rather scarce psychiatric services which were mainly concentrated in the provincial capital [14]. We found an estimated annual incidence rate of 8.5 per 1000 of the population. Close to 10% were admitted following the first contact, and after a period of 3 months had elapsed 6% were still in hospital. The much lower rate in the Dutch province than in New Haven can perhaps be explained by a difference in the density and type of mental health services. However, no study of that nature has been conducted.

Just as with the community surveys, it appears that the findings of the studies of treated patients are too divergent to establish a firm basis for planning.

A more recent development is that of the study of "Case Registers". Of particular interest is the one by Wing e.a. [10] involving case registers in three urban areas : Aberdeen, Camberwell District (London), and Maryland (US). The authors gave the following description of their work : "The registers are integrated record systems for accumulating data concerning all those people living in the local geographical area who make contact with psychiatric and certain other socio-medical services during a specified period of time. Such registers have three types of advantage for epidemiological and operational research :

1. They are based on defined populations, usually on geographical areas, so that collected information can be compared with data concerning the total population of the district, derived either from the routine national census enumerations or from ad hoc local surveys or from general practitioners' records.

2. Reports are received from a wide variety of agencies and services.... always including, as a minimum, admissions to psychiatric hospitals and units of all kinds, to day-hospitals and day-centres, and to outpatient clinics. In this way, demographic, social and clinical information about each patient is collated with a full record of contacts with all the agencies and services involved. Thus correlations within the data can be studied, unduplicated counts of patients can be made, and the common bias which arise from considering only one or a few psychiatric agencies is avoided.

3. The third advantage is that registers are cumulative. The path of any patient can be traced through contacts with many agencies or services, time trends in the patterns of contacts can be studied (for example, changes in the population of mental hospitals compared with the numbers attending community services) and the effect of introducing new services into an area can be observed".

It hardly needs to be mentioned that the operation of such a register brings considerable technical and administrative problems, while its maintenance is very costly. For one thing, the availability of a computer facilitates the storage and the analysis of the information to a great extent.

Such studies begin with a census of all cases under treatment on one day (point-prevalence) and they follow with a registration of all further and new contacts.

In the above-mentioned study the one-day prevalence was 0.8 to 1.1% of the general population and the annual incidence of new episodes also 0.8 to 1.1%. The overall one year prevalence rate was strikingly similar in Aberdeen, Baltimore and Camberwell, being roughly 1% in contact with a service on the census day plus another 1% making contact during the subsequent year. Two other findings appear to be of great importance. The marked differences between the cities in the distribution of cases over the various types of services and the diagnostic categories did not affect the overall one-year prevalence rate of approximately 2%.

This might indicate that :

1. Variations between countries in the numbers of in- and outpatients per 1000 of the population are a result of the availability of the various types of service.
2. Variations in the incidence-rates of particular diseases between the cities could be caused by the diverging diagnostic habits of doctors.

Although these studies are of great interest and have provided important information, it is difficult to see how their findings could serve as a basis for planning in a developing country :

1. The investigations are too expensive and too laborious to be conducted in such a country.
2. The scarcity of mental health services in the developing nations could cause us to underestimate the needs of the people because they are neither in a position to attend a clinic if there is none available, nor have they learned to use such a service if it has recently been established.

3. Even in a developed country with a wealth of services it has been shown that many of the chronic patients do not attend a regular psychiatric clinic [15], and that they become vagrants. Therefore, the needs of these people would remain unassessed.

III GENERAL OUTPATIENT SURVEYS

Because of the scarcity of psychiatric services in the developing countries it is more advisable to screen general outpatient populations in order to find out whether people are accepting modern medical help to cope with their psychiatric problems, and to assess their needs. General practices, the outpatient departments of general hospitals, and the rural health centres could serve the purpose.

As has been shown [16,17] a simple instrument for evaluating cases could be applied by the doctors who run the services. For example, Kessel's [16] measurement of conspicious psychiatric morbidity showed how patients attending the clinic could be classified as :

1. Those who have a purely somatic illness.
2. Those who have an explicitly psychological complaint.
3. Those presenting somatic symptoms not explained adequately by physical illness.
4. Those with indisputable physical illness but with a psychological reaction to it, which is in some way abnormal.
5. Those who display personality problems without a direct relationship to their current illness.

Shepherd e.a. [17] applied rather similar standards, and found that in London general practice, the annual consulting rate for psychiatric morbidity was 139 per 1000 of the population at risk. However, they also

reported in their review of the literature that the rates (as percentages of all consultations) varied from 5 to 47.6%, indicating that the diagnostic tendencies of the practitioners or of the investigators must also have been subject to variation.

Similar studies conducted in Ethiopia and Holland[5,9,18], demonstrated that, even in a rural area, as many as 148 per 1000 of the population at risk attended the health centre with psychiatric complaints. From 7 to 19.5% of all new cases attending the clinics did so mainly because of a psychiatric complaint.

These studies do illustrate the heavy burden of psychiatric complaints not only on the first line of the health services in a developed nation but also on that of a developing country. Nevertheless, they do not help us to assess the real needs of the population for the following reasons :

1. It is not known how many of the patients in a general practice need specialist psychiatric care, and of what kind.
2. As in the other investigations, those people who need psychiatric care most, the psychotics, are unlikely to attend even the clinics in the first line of the health services. In the developing countries psychotic patients are more likely to be found in the healing centres of the sheiks, the Zar-leaders and other native healers or amongst the beggars.
3. The need for help from a health service appears to vary [9] with the degree of medical sophistication of a community, and with its economic provisions enabling people to attend such services. In other words given an illness, one still has to learn and to be in a position to take up the sick-role.

It appears from the above discussion of the various ways of assessing the psychiatric needs of a population, that no "once and for all" answer can be expected from surveys of the community, the psychiatric in- and

outpatient services, or the general health services. One gets the overall impression that, up to a point, the development and the increasing accessibility of mental health services may create a mounting need for psychiatric help. Our problem is that we do not yet know up to which point this happens to be the case. However, from the prevalence rates found in the developed world and from the known scarcity of mental health services in the developing countries we may safely assume that a great and unfulfilled need does exist. Does this mean that we are coming back to the strategy which was mentioned at the beginning of this paper, namely that any addition to the existing services will be desirable and acceptable? However, the adoption of such a policy implies that we ignore the lessons to be learned from the adverse experiences of the developed world : i.e. large mental hospitals, overcrowded with chronic patients who do not receive much psychiatric treatment, and who get very little attention with regard to social rehabilitation; and understaffed and overworked outpatient services, which operate in isolation from the mental hospitals and other residential facilities.

Therefore, what epidemiological surveys cannot supply and what the planners need most of all, is a clear statement by the Governments of what they consider proper mental health care and how this should be achieved. At present, it is possible to formulate such a policy and to take into consideration both the needs of the patient and his family and the needs of the people who have to provide that care :

(a) With regard to the patients most people agree that they should be treated as much as possible in their own environment and preferably outside a mental hospital. They should be met in the early stages

of their illness, while there should be continuity in the types of care they might need during the subsequent stages of their incapacity.

(b) With regard to the mental health workers it can be stated that it is no longer possible for them to deal with the problems of their patients all by themselves or in one way only. They should be able to complement their own contribution with that of other types of health workers, and they should also be in a position to call upon a variety of mental health facilities.

Once a policy is adopted it is up to the planners to develop programmes for the training of manpower and the building of the necessary facilities at a rate which is in accordance with the economic potential of the country. In other words what can be achieved tomorrow may in itself be quite inadequate. Yet it fits in with the step by step development towards a stated objective.

Even if we should accept as a base-line, Strömgren's findings in Denmark [19] that annually about 2% of the population will be referred to a psychiatric service and that about 10% of these patients are in need of admission to a hospital, then we still have to translate these needs in terms of manpower and of in- or outpatient facilities. As long as we know very little about the precise effects of the different kinds of psychiatric treatment and care, and of the effects of any length of time spent by a psychiatrist or another mental health worker with his outpatients, any statement regarding the preference of a particular approach tends to be ideological. Consequently, it will be more advantageous for the planner to consider the health workers themselves and the case-load they are able to carry without neglecting the majority of their patients.

Birley [20] tried to calculate the burden of psychiatric patients even further. Starting from a population of 60 000 he estimated that on any one day approximately 500 patients will be under the care of all combined psychiatric services in an area, well provided with such services. In addition, every year another 500 patients will newly enter the services. Annually from 200 to 300 people will have to be admitted. This would mean a stay of 5 to 7 weeks in a 30-bed unit, provided that there are no long-stay cases. On reviewing the literature, Birley expects annually 265 out-patient referrals, i.e. 5 new cases per week. The total number of outpatient contacts will be 1850, i.e. 35 attendances per week. The estimated number of day-places is 40 per 60 000 of the population.

According to Birley's calculations the responsibilities of the mental health services will be as follows :

-at any one moment 500 patients, i.e. 100 chronic, institutionalized cases, 30 short-stay cases, 40 day-patients; and 4 to 6 outpatient sessions per week.

How many mental health-workers and of what discipline suffice to properly deal with this case-load still remains to be defined. It is obvious that even the most skilled mental health worker can achieve very little if he is on his own and responsible for such a tremendous case-load that he has just enough time to hand his patients a new prescription of drugs every 4 to 6 weeks. Under those circumstances he could be more productive if he dedicated all or most of his time to the training of new mental health workers and to advising other health workers who are less experienced.

In other words epidemiological surveys are unlikely to provide important leads on how to solve the mental health problems of the developing countries.

Formulating a mental health policy and stating the role of the mental health workers during the successive stages of development should at least give the planners a direction and an orientation. This would imply an ideological rather than an epidemiological assessment on the part of the Government.

Fortunately, the medically unsophisticated illness behaviour of the mentally disturbed and their relatives is likely to give some respite to the authorities. But this illness behaviour will change rapidly with the development of the mental health services. To some extent the needs are bound to develop with the services.

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