common, it is upon the junior medical and nursing staffs that the primary responsibility for their detection rests. In casualty departments a form is often provided for the guidance of the house-surgeon in the examination of cases of suspected brain injury, alcoholism, epilepsy, and a space left for the testing of consciousness. In my own hospital, for example, the examiner is required to put a mark against the appropriate item: "fully orientated"; "conscious but disorientated"; "unconscious but responds to stimuli"; "deep coma." Much better would it be for doctors and nurses alike to record what they actually observe, the conscious level, as Ellis and Calne (1965) recommend, being "charted according to the patient's response to stimuli." The questions put to patients to assess their conscious level are often too subjective or ill-defined, and indeed it may be easier to record their responses to tests for perseveration, such as "put out your tongue" or "close your eyes," than to try to determine whether they are fully orientated or not—questions devised to elucidate the latter point often upsetting patients more than giving them simple tests to uncover perseveration, if such be present.

Similarly, in the wards young doctors and nurses have no difficulty in recognizing profound clouding of consciousness, but they can easily be misled into mistaking the incongruous behaviour of perseveration for hysteria (Allison, 1956) if not for plain or wilful awkwardness on the part of a "difficult" patient. Adams and Hurwitz (1963) have referred to the difficulties to which it may give rise in patients recovering from hemiplegia after a stroke. Reinhold (1953) has emphasized its importance in the differentiation between functional and organic mental states, but none of the general nursing manuals

and textbooks I have consulted make any reference to it. A few common examples may be given.

When a patient is being tidied up or bed-bathed, and is told by the nurse to flex his knees so that she may straighten the sheet or wash underneath them, he will comply readily enough; but a moment later, when told to extend them again so that she can deal with some other part, he may seemingly redouble his efforts to keep them flexed, giving the impression either that he has not comprehended or that he is wilfully refusing to do so. Or again, willingly enough, he may roll over to one side to allow his back to be rubbed, but when asked to turn to the opposite side he will not do so, maintaining his former posture despite all appeals to change it. This "motor" perseveration or "tonic-innervation," which is often spoken of as "gegenhalten" (Kleist, 1931), can be, and in our experience often is, an early sign of clouding of consciousness. An even more obvious perseveration sign is when a bowl of water, soap, and towel are placed before a patient and he is told to wash, then dry, his hands, but instead proceeds to wash the towel. Perseveration, too, may account for a patient's behaviour in making repeated attempts to get out of bed, although repeatedly urged to the contrary. Elsewhere (Allison, 1962) I have described such a patient, who, when his request was acceded to and he was taken by the arm for a short walk about the ward, ending at his bedside, got in again without demur and shortly after fell asleep, the same procedure serving to overcome the difficulty on subsequent occasions.

[The second lecture, with a list of references, will be published in our next issue.]

Senile Breakdown in Standards of Personal and Environmental Cleanliness

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This investigation is a study of a small group of individuals who cease to maintain the standards of cleanliness and hygiene which are accepted by their local community. We have called this condition senile breakdown, because, with the exception of one psychiatric patient, we found it only in the senile epoch. It is not a common condition, but there can be few general practitioners or community workers who have never encountered it.

The usual picture is that of an old woman living alone, though men and married couples suffering from the condition are also found. She, her garments, her possessions, and her house are filthy. She may be verminous and there may be faeces and pools of urine on the floor.

These people are often tolerated for years by the neighbours, who may suddenly decide that they cannot stand this state of affairs any longer and report the case to various organizations, such as the police or the health department. By this time conditions are usually so bad that many organizations have to spend a disproportionate amount of time and energy in trying to put them right, often with little result.

From our experience we believe that there is an argument for holding the condition to be a syndrome. There is a similarity of pattern in its causes and course, though many gradations are found. The severe self-neglect we have observed

is by no means the usual concomitant of old age. Many of the cases were psychotic, but in others the deviation from the accepted personal and environmental standards of the local community occurred without a psychosis being present.

Origin, Scope, and Course of Investigation

A number of these cases are referred sooner or later to the mental health department, and one of us (D.M.) realized that little was known about the factors which lead to the development of the condition. In order to investigate these factors an inpatient unit of eight beds was set aside in Mapperley Hospital. One of us (P.S.) was given a four-year contract to undertake the field work, and this began on 1 August 1961. This paper reports the results for all cases accepted during the three years ending on 31 July 1964. These were then followed up for a further year.

At first all patients were offered admission in order to carry out full physical and psychiatric examinations and a psychological assessment, but by May 1962 we realized that the greater number of those who had been admitted had degenerated

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rapidly into apathetic beings, taking little interest in their surroundings, and had clearly become completely unable to renew existence outside hospital. We therefore decided to offer instead day care in a hospital ward, and, when this was accepted, to carry out all the necessary examinations during these day attendances.

Method

A circular was sent out to all general practitioners in Nottingham inviting their cooperation. The medical officer of health and the geriatric physician were also informed.

Cases were referred sometimes directly and sometimes through the mental health department. A number of ordinary referrals to the mental health department and other sections of the local health authority showed evidence of senile deterioration and were included in the investigation. The chief welfare officer, the clergy, and some private individuals took great interest in the project and informed us of further cases.

After referral the case was discussed with the general practitioner except in one or two instances where this was not possible. Then one of us (P. S.) visited the patient at home. This initial visit proved to be of great importance to the subsequent course of the case and it was often lengthy. Our next step was then to arrange interviews with the family doctor, relations, friends, and neighbours. Finally, many subsequent visits to the patient were made, some of them with the clinical psychologist. The psychiatric assessment was carried out during a joint visit by us both or when the patient was in hospital.

Grading

At the initial visit full notes of the condition of the environment and of the personal state were made. After some experience we realized that there was a pattern in the squalor we observed, and that it was possible to produce a system of grading the salient features of the environment and of the person. Ten characteristics of the premises and five of the person, we considered, could serve as indicators of the degree of the subject's adaptation to the social conventions of today.

The 10 environmental features chosen were floor, walls, ceiling, windows, bed, table, cooker, coal, dirt, and smell, while the five personal ones were skin, hair, hands, clothes, and method of disposing of excreta. Each feature could be scored according to five degrees of severity. For the hair, for example, these were (1) clean, cared for, (2) clean, untidy, (3) rather dirty and untidy, (4) very dirty, (5) filthy, infested. The scores for each feature were then totalled and a grading arrived at. The grades ranged from grade I, the best grade, to grade V, the worst.¹

Criteria for Inclusion

Those included in the environmental and personal grades III to V were accepted without question as being within the scope of the project. In a few cases the patient cared for her person but not for her environment, and such people were also included. In other instances patients were seen in hospital or had been taken to stay with relatives, and these were only accepted if a definite history of deterioration was satisfactorily established. In one case a very observant general practitioner had noticed a slight but definite lowering of standards over a period of months, and this was confirmed by the woman in untidy messy clothes showing a snapshot of herself, trim and clean, taken a year before.

¹ A copy of the full grading scale is available on request from Dr. D. Macmillan, Physician Superintendent, Mapperley Hospital, Porchester Road, Nottingham.

Results

The total number of cases accepted was 72, made up of 12 men and 60 women. Details of these cases are given in Tables I, II, and III.

TABLE I.—Age Groups of 72 Normal and Psychotic Men and Women

Age Group	Normal (34)		Psychotic (38)	
	Men	Women	Men	Women
Up to 60	—	—	1	—
60-69	1	3	—	5
70-79	4	12	—	18
80 over	4	10	2	12
Totals	9	25	3	35

TABLE II.—Marital Status of 72 Normal and Psychotic Men and Women

Marital Status	Normal (34)		Psychotic (38)	
	Men	Women	Men	Women
Single	1	7	1	9
Married	4	—	1	6
Widowed	4	18	1	19
Separated	—	—	—	1
Totals	9	25	3	35

TABLE III.—Analysis of Groupings of Personality Traits in 72 Normal and Psychotic Men and Women

Group*	Normal (34)		Psychotic (38)	
	Men	Women	Men	Women
I only	2	6	2	9
II	2	—	1	1
III	—	1	—	2
IV	—	1	—	3
V	2	—	—	5
I+II	2	10	—	6
I+III	—	—	—	2
I+IV	1	1	—	2
I+V	—	—	—	1
II+III	—	4	—	2
II+IV	—	1	—	—
I+II+III	—	1	—	2
Totals	9	25	3	35

*Key: Group I.—Independent, aloof, dominant, obstinate, moody, hoarder, particular, self-satisfied.
Group II.—Quarrelsome, difficult, jealous, aggressive, suspicious, secretive.
Group III.—Eccentric odd.
Group IV.—Extroverts: friendly, sociable, humorous, cheerful.
Group V.—Passive, negative, shy.

Incidence

According to the 1961 census Nottingham had a population of 311,899, of whom 50,321 were aged 60 years and over. As the cases were referred at the rate of 24 a year, the condition is clearly not common, the incidence being 0.5 per 1,000 per annum. It is, of course, possible that some cases were not referred to us, but we think that, with the publicity given to the investigation and the contacts established with the medical and other workers in the community, very few cases were not referred during the three-year period.

Aetiology

Age (Table I).—The age range was from 60 to 92 except for one man aged 48; by far the largest number (93%) were 70 and over. The median age was 79.0 for men and 77.0 for women.

Marital Status (Table II).—The preponderance of widowed women was noticeable—37 all told. Married couples presented a limited and special problem.

Physical Isolation.—Fifty out of the 72 cases lived alone, and of these many were socially isolated, having very tenuous and minimal contacts with the outside world.

Pre-syndrome Personality.—In every case an attempt was made to build up a picture of the personality of the individual

before the onset of symptoms, and this was done by interviews with relations, neighbours, and friends. Their descriptions were supplemented by social workers' records, and information from general practitioners and other official and voluntary sources.

The pattern which emerged again and again was that of a domineering, quarrelsome, and independent individual. Typical of the adjectives applied to them were independent, unfriendly, stubborn, obstinate, aloof, aggressive, suspicious, secretive, and quarrelsome.

It will be seen from Table III that, while this type of personality was found more frequently in the normal group, it was also present in 28 of the 38 who were psychotic. A breakdown of the latter group showed it to have been present in 16 of the 23 cases of senile psychosis, in two of the three cases of chronic alcoholism, and in all the paranoid psychoses and cases of manic-depression. An interesting fact is that it was present in nine of the patients diagnosed as suffering from reactive depression.

The impression given by the study of the previous personality and of the history is one of a gradually developing rejection of the community, with resentment of any outside interference and an abandonment of the accepted standards of behaviour of the neighbourhood. In extreme cases this was also evidenced by a "shutting-out" of the community by curtaining permanently or papering the windows. This taking of positive steps to exclude everyone was present to just the same extent in the normal group—particularly in those with reactive depression—as in the senile psychotic and paranoid groups.

The state of senile social deterioration would thus seem to be in many cases an expression of an attitude of resentment and withdrawal from the community and all it stands for by individuals with a tendency to isolation and self-sufficiency.

The opposition to attempts to rectify the situation which we so frequently encountered supports this hypothesis. The initial resistance to any intervention and to any attempt to alleviate the situation was most marked.

Mental State.—Our cases fell into two distinct groups: those whose mental state was normal (9 men and 25 women) and those who were psychotic (3 men and 35 women). Included in the normal group were one man and 10 women suffering from a mild degree of reactive depression, which was usually little more than a normal bereavement reaction.

In the psychotic group three women had histories of repeated admissions to psychiatric hospitals over many years (one schizophrenia, one presenile dementia, and one paraphrenia). Two cases had been admitted on one occasion to a psychiatric hospital (one manic-depressive and one senile paranoid psychosis). None of the others had received psychiatric inpatient treatment before the investigation.

By far the most common psychiatric condition was senile psychosis, and 23 of the 38 cases of psychosis were diagnosed as suffering from it. Of the others one patient suffered from presenile psychosis, two from schizophrenia, and one from paraphrenia of long duration. Five exhibited symptoms of senile paranoid psychosis, three of chronic alcoholism, and three of manic-depressive psychosis.

Precipitating Factors.—By this is meant a specific event to which relations or neighbours definitely attributed the onset of deterioration. Some of these incidents seemed trivial, others important, but there was always a clear-cut history that deterioration set in shortly afterwards.

According to this criterion the death of a near relation who lived with the patient was the most important precipitating factor in the normal group; in four men and seven women the breakdown followed the death of the spouse.

In the psychotic group, however, a death was the precipitating factor in the case of only one man and one woman.

Case 1.—A widow of 72, always stubborn and quarrelsome but mentally normal, was maintaining herself reasonably well in a

corporation flat. Every Sunday she was taken out for the day by her son-in-law. They quarrelled and he no longer came to fetch her, and her condition deteriorated markedly after this.

Case 2.—A single woman aged 80, suffering from senile psychosis, was beginning to need help with the house. Her niece came once a week from about 20 miles away to see her, and they quarrelled because the patient refused to consider home help. Thereafter the niece ceased to visit and the patient rapidly deteriorated.

Influence of Housing.—The effect of the type of property inhabited by our patients does not seem to have been as great as might have been supposed; some of the worst cases were in new well-planned corporation flats and bungalows, with every facility for good housekeeping. Ten women lived in modern flats or bungalows and eight lived in quite good houses, again with facilities for easy working. In old inconvenient property were five men and 31 women, where lack of hot-water, old-fashioned grates, sometimes even without electricity, did not conduce to proper care of the house. The man and the three women who lived in single rooms in lodging-houses had many difficulties over sanitary and laundry facilities, cooking, and storage of fuel and food.

Married Couples.—Although by far the greatest number of patients were widowed or single, there were five married couples who presented special features, both the husband and wife exhibiting the syndrome. The only other married case was a wife who suffered from a presenile psychosis.

In the case of the five married couples the situation reminded one in some respects of instances of *folie à deux* occurring in the senile paranoid context. The symptomatology is different but there are some basic similarities.

Cases 3 and 4.—A couple, aged 81 and 76, lived in one basement room of their own fairly large house in indescribable squalor. The first impression one got on entering was that everything was a uniform dirty greyish-brown, including their faces and hands. Both were alcoholic. After two months' persuasion the woman agreed to come into the psychiatric hospital. She deteriorated mentally, and three years later died of bronchopneumonia. After a short spell in residential accommodation the husband continued to live in squalor for about 18 months and refused to open the door to visitors. He then made arrangements for private domestic help and moved on to the first floor. His room was quite clean, he tidied himself up and was clean and well fed. Neighbours said he was always downtrodden and the wife was clearly the dominating one of the two. He managed quite well until he met with an accident and died in hospital.

Alcoholism.—In addition to the three cases of chronic alcoholism there were nine men and 11 women who were known to be heavy drinkers. There were also one man and four women in whom this was suspected to be a factor but definite confirmation was not obtained.

It seemed in general that the alcoholism preceded the development of the squalor of the living conditions and the filth of the person. Once alcoholism was established the care of the person and the premises suffered, and 16 of all these cases were graded IV or V.

Apart from the three cases of chronic alcoholism it was not possible to judge whether the indulgence in alcohol was a primary or a secondary factor. A further possibility is that both the alcoholism and the breakdown had a common cause.

Loneliness and Grief.—The large proportion of patients living alone has already been commented upon. In many such cases the loneliness was apparently due to the personality of the patient, who spurned offers of help from relations and neighbours. Eccentricity of behaviour was found to frighten neighbours who might otherwise have helped.

Case 5.—A widow aged 70, with no psychotic symptoms, had had a severe facial palsy since childhood. She was bitter and suspicious. After her husband's death a near relation living a few doors away offered to help her with the household work and the washing, but all offers were rejected with such vehemence that the parties are no longer on speaking terms.

Grief was present in four normal men and 16 normal women, while in the psychotic group it was found in two men and six women. Sometimes the grief was due to a bereavement of a long time ago, but we accepted it as of significance if the patient was still clearly affected by a sense of loss.

The general impression gained from many of these cases was that a sudden loss of security and companionship could have dire results. Information obtained from neighbours and others suggested that these relatives had been the mainstay of the household, and the sudden loss of companionship allied to the necessity for patients to fend for themselves had brought about the social deterioration. Two of the patients had taken in lodgers when they were left alone, but in both cases these were highly unsatisfactory.

Case 6.—A single woman aged 78, who was mentally normal and who had held a responsible job, shared a flat with her sister until the latter's death 17 years before the patient was referred. She was constantly talking about the loss she had sustained by this death and showed that she thought there was little object in keeping the flat clean and tidy, as she lived alone in it.

Intellectual Capacity.—A psychometric evaluation was carried out by our senior clinical psychologist on 28 of the cases. The others were assessed at the psychiatric interview, except for 12 patients in whom, for one reason or another, no reasonably accurate assessment could be made. No instance of mental subnormality was found, and 25% of the patients were of high average intelligence.

No evidence was found in the non-psychotic cases of greater mental deterioration than in a comparable sample of non-psychiatric cases without evidence of senile breakdown in standards.

Physical Disabilities.—As might be expected from patients in this age group, the numbers whose health was considered good for their age was very small and many showed more than one disability. In the normal patients 17.6% were deemed healthy, whereas in those who were psychotic the figure was 5.3%.

A large number of the ailing suffered from general frailty with or without anaemia. Cardiovascular degeneration was found in 20 cases and chronic bronchitis in five.

Special Senses.—Severe deafness in 10 patients was probably an important factor in their breakdown, leading, as it did, to personal isolation. It was found more often among the psychotic patients (seven cases), whereas poor vision or blindness was more common among those who were normal (five cases against two). Where the blind are concerned there is of course every reason for the house and person to be inadequately cared for.

Mobility.—Over half (40 cases) of our patients were fully mobile and could get out to do their shopping or visit friends had they so wished. Sixteen could move freely about the house and a further five were unable to get upstairs. Only 11 were severely immobilized, generally because of either heart failure or arthritis. A very few were handicapped by foot deformities.

Contact and Support.—It might be assumed that old people get into a state of squalor because no one helps them with the ordinary daily household chores. In fact, however, in this group of people only two men and six women had no support or social contacts of any value, though help would have been provided in every case had the patients been willing to accept it. The rest all enjoyed different amounts of support from different sources, and a number had help from two or more sources.

Three men and 18 women had more or less effective visiting by members of their family. Younger generations made efforts to redecorate rooms, and some did regular cleaning and provided meals. Where the only surviving members of the family were of the same generation, little help of a hard physical nature could be expected, though in several cases the more mobile visitors undertook the shopping.

In many instances neighbours saved the situation. No less than 18 women and three men received much help from neigh-

bours—sometimes in conjunction with the statutory services, sometimes as the only source of help. But often neighbours, who had begun to help a little out of the goodness of their hearts, found that inordinate demands were made on their time, energy, and purse, and they received scanty thanks in return. In such circumstances the less-devoted ones gave up going altogether, often thus precipitating a crisis.

The statutory services brought help to six men and 33 women, the main ones being the home nursing and the home help services. A few individuals were seen regularly by health visitors. Other sources of help were the Salvation Army, the W.V.S., and religious bodies.

Treatment

There are several methods of treatment open to us, and we have tried to assess the relative values of these. Success in any treatment, as we all know, depends largely on the cooperation of the patient, a quality which in our series was singularly lacking.

Admission to Psychiatric Hospital

We have already commented on our experience that many patients deteriorate markedly soon after admission, when they no longer need to make any effort to care for themselves.

In all 30 patients were admitted, and of these 14 returned home but nine were readmitted after an interval.

The final picture at the end of the four years is that of all the patients admitted to the psychiatric hospital five were still in hospital, 17 were dead, five had been admitted to other hospitals for physical reasons, and three were still in the community.

Admission to Other Hospitals

Twenty-one patients were admitted to one of the other (non-psychiatric) hospitals of the city, in most cases for a medical or surgical emergency. Seven died within a few days of admission.

Two patients who would have been unable to look after themselves alone at home had means, and places were found in private nursing-homes for them. Two others in a similar condition, but without means, were transferred to welfare service hostels.

Day Care

The success of attendance at the day centre was easy to see; there was soon a marked improvement in the patients' physical and emotional state and in their morale. The day patients made friends among themselves and the inpatients. They took part in the hospital activities, and the inpatients manifested great interest in them and plied them with food and cups of tea on arrival and departure.

A few were very erratic in attendance, came for one or two days, and then did not reappear for weeks. Others came regularly from two to seven times a week.

There were two problems in arranging day care. One was the question of transport. All patients were brought in by the city ambulance service, and difficulties arose if patients were not ready and the ambulance schedule was upset. The regular attenders got into the habit of being ready on time, and the difficulty did not arise if a relative or neighbour saw that the patient was ready.

The other problem was the state in which some of the patients arrived. Only the infinite patience and kindness of the staff

saved the patients from a feeling of degradation. They were provided with new clothes, but often next day would return in old garments, filthy and torn, with possibly odd shoes or without a skirt. The way the hospital sisters coped with these time-consuming difficulties is beyond praise.

Community Care

The City of Nottingham has well-established domiciliary services, both statutory and voluntary, and if these services had been accepted in time and used to the full a profound difference would have been made to the lives of our patients. Unfortunately, as has already been said, a number of them would not accept anything.

Close supervision and frequent visiting by the staff of the mental health department or by welfare officers, who keep in touch with the family doctor when advisable, are necessary.

The home help service has an unparalleled part to play in caring for patients of this kind. If the home helps are accepted by the patient their transformation of filthy premises is nothing short of miraculous, but the almost insuperable difficulty is the reluctance of the patient to permit anything to be thrown away or even moved, and the unfortunate home help has to do the best she can in most trying circumstances. Six of our patients had their rooms transformed from squalor to a reasonable standard of cleanliness, and many others had regular home help with some degree of improvement.

Other services which made a notable contribution to the care of our patients at home were the welfare services, the home nursing and health visitor services of the health department, and also the national assistance board. Meals-on-wheels, run by the W.V.S. in conjunction with welfare services, was a great help in the cases where it was accepted.

Role of Relatives

Many of our patients had no relatives and others had lost touch with theirs. Where relatives were known and interviewed their attitude was often one of mixed shame and helplessness. Many of them knew only too well from experience that their offers of help would be rejected fiercely. With some encouragement a few agreed to try to help, and redecorated rooms and replaced furnishings.

Some relations were doing a great deal, often with scant thanks as a reward. For instance, a nephew in a responsible position gave up every Sunday and one afternoon a week to visit his aged aunt and cook enough food to last her for two days. One devoted niece travelled a long way every day to take a dinner to her aunt and often found it the next day in the dustbin. Relatives of this kind, doing all they could under grave handicaps, greatly appreciated the interest taken.

In a few cases relatives who hitherto had stood aloof were stimulated or shamed into taking an active part in helping when they saw the activity of the numerous people who are involved when a case of social breakdown is brought to light.

Refusers

A group of four men and 18 women refused to accept help in any form, though day care, home help, meals-on-wheels, and many other amenities were suggested to them. These offers were persistently made, and different reasons for refusal were given at each visit. Sometimes a patient would agree to try the day centre, but refused to come when the vehicle arrived for her. Meals-on-wheels were accepted perhaps for three or four rounds, and then the W.V.S. driver was told no more were wanted.

These people gave the impression that they could not bear any disturbance of their isolation. Many of them were obviously lonely and tried to keep their visitor with them by many devices, but the promise, for instance, of pleasant companionship at the day centre left them unmoved. They wished to remain as they were. Eventually 12 of them were admitted to hospital and one to welfare services accommodation.

Results

Deaths and Removals

By 31 July 1965 five men and 31 women patients had died. The deaths were due mainly to causes to be expected in any group of old people—carcinoma, bronchopneumonia, myocardial degeneration, uraemia, and gangrene of the feet. There was only one death which could be regarded as being related to the senile breakdown—gangrene of the feet accompanied by dehydration and malnutrition. This patient was more uncooperative than most in refusing to accept help in any form.

Three of the patients had attended for day care for several months before death, and had improved physically and mentally, but two of them developed a fatal bronchopneumonia, while the third fractured a femur in a fall.

Three patients had been taken to other towns by relatives and were lost sight of.

Hospital Patients

Five women were long-term inpatients in the psychiatric hospital, and one man and nine women were in other hospitals.

Patients Living at Home

Six men and 12 women were at home. Of these, one man and three women were attending for day care more or less regularly. One married couple and a man were being looked after very well by the home help service, and two women had somewhat inadequate help from relations. The remainder, three men and six women, refused all help, but appreciated visits.

Discussion

As a result of our observations we have come to the conclusion that the rejection of the usual standards of personal and environmental hygiene, which is the cardinal feature of this condition, is in many cases an active and positive reaction, and is not simply a passive deterioration. It is an expression of a hostile attitude to and a rejection of the outside community.

The question arises whether the aggregation of personal and environmental symptoms we have noted in these patients is worthy of acceptance as a syndrome and as an entity in its own right, or is merely a collection of incidental accompaniments of a variety of conditions.

The usual tendency of the general practitioner, and even of some psychiatrists, on encountering this state of affairs is to make the diagnosis of senile psychosis, and to attribute the breakdown in standards entirely to this.

In a number of the cases, 38 out of 72, a psychotic condition was present, but in the remaining 34 no evidence of psychosis was found. The deviation from the personal and environmental standards of their local community was just as marked in the one group as in the other.

The typical symptomatology—(1) occurring in a definite type of previous personality, (2) associated usually with a rejection of and hostile attitude towards the outside world, and (3) without necessarily being associated with a psychosis—seemed to us to justify its acceptance as a specific syndrome.

It would seem that if only the early stages could be recognized measures could be taken to avoid the final degradation. This presupposes that the patient would accept help, though we are by no means certain that this is necessarily true, even in the early stages.

We tried to obtain information about the time of onset and the first signs from relatives and neighbours in all cases, but found it difficult to obtain accurate data. In 34 cases no one could state exactly when deterioration had shown itself. In the others the period varied from one year to 10. There was, however, absolutely no connexion between the duration and the degree of social deterioration. Cases of one year's duration were just as bad as those with a much longer history.

The vulnerable individuals "at risk," who are potential candidates for developing the syndrome and in whose cases preventive community measures ought to be taken, are old people of the independent and domineering type living alone, with poor or non-existent social links with their local community. Their personality makes contact with them difficult, but much can be done with tact and perseverance, and this should be an easier task in the pre-breakdown stage.

The key figures in prevention are the family doctor and community workers, such as the health visitor, the welfare services visitor, and the mental welfare officers, as they are usually the first to become aware of the situation. They should be alive to the importance of precipitating factors—bereavement and physical ill-health or trauma, for instance.

There is usually no organization to which cases can be reported and from which efficient action can be obtained. Our survey has demonstrated the need for such a service to be made available for these cases. We would like to suggest that in every area someone, preferably medical, should be designated to deal with all such cases from both the preventive and the therapeutic aspects. Psychiatric advice should be available.

The question arises why old people, exposed to apparently comparable stresses, develop different patterns of symptoms. In some instances there is this syndrome of senile

breakdown in standards, in others a senile paranoid psychosis, and in yet others one of the psychiatric senile states which are at present lumped together under the diagnosis of senile psychosis or senile dementia, while others show no obvious abnormal symptoms.

Why in some cases do we find both the syndrome and a psychiatric illness, whereas in others the syndrome occurs without psychotic symptoms?

The contrast between the environmental conditions of the senile paranoid individual retaining a scrupulous regard for standards of cleanliness and hygiene and the sufferer from the breakdown syndrome is a most striking one. More extensive investigation of the latter could throw further light on the psychoses of the senium.

We regard this investigation as merely a preliminary one of a condition which requires and should repay further study.

Summary

A group of 72 individuals exhibiting evidence of personal and environmental lack of hygiene and deterioration in social standards was studied over a period of four years.

The incidence was of the order of 0.5 per 1,000 population over 60. Most of the patients were over 70 years old, and women far outnumbered men.

Isolation, a certain type of personality, bereavement, and alcoholism were found to be important factors in causation. Slightly over half the patients showed psychotic symptoms.

There is often a positive rejection of society and resistance to offers of help. It is suggested that the condition may be considered as a syndrome.

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Jejunal Disaccharidases and Some Observations on the Cause of Lactase Deficiency

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Borgström *et al.* (1957) confirmed that the final stage of disaccharide hydrolysis in man takes place within the small-gut mucosal cells rather than in the lumen. Mucosal disaccharidase deficiencies were then soon discovered in children (Durand, 1958; Holzel *et al.*, 1959), and now lactase deficiency is well recognized in adults (Dahlqvist *et al.*, 1963; Auricchio *et al.*, 1963a; Haemmerli *et al.*, 1965; Cuatrecasas *et al.*, 1965; McMichael *et al.*, 1965), although its cause remains obscure. Mucosal damage depresses lactase activity (Schmerling *et al.*, 1964; Plotkin and Isselbacher, 1964), but the relevance of this observation to lactase deficiency in structurally normal mucosa is uncertain. Inheritance of disaccharidase deficiencies has been discussed by Dahlqvist (1962) on the basis of enzyme charac-

terization, but while inheritance of sucrase deficiency is now fairly well established (Auricchio *et al.*, 1965b) there are few data on the inheritance of lactase deficiency.

We have therefore analysed the disaccharidase activities of 87 consecutive peroral jejunal biopsies, 18 of which were structurally abnormal, and performed lactose-tolerance tests in a further 15 subjects in an attempt to clarify the origin of lactase deficiency in adults with structurally normal mucosa.

Methods and Material

Eighty-seven jejunal biopsies were taken by Crosby capsule from 86 patients who had diarrhoea, abdominal pain, bone disease, or unexplained anaemia. Twelve of these patients who had previously undergone gastric surgery had biopsies taken from the second loop of jejunum; all other specimens were

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