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Leprosy in Ethiopian Society¹

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Characteristic of any statement about leprosy in Ethiopia is the question mark following it. For example, estimates of the prevalence of the disease have gone up from 15,000 in 1950 to 250,000 at the present, an equally estimated 1 per cent of the general population. Figures are based on surveys of school children. Taking into account the tremendous variations in the number of schools per province, such a survey can hardly be expected to supply representative data, particularly since in some areas less than half of the children are attending school. Figures regarding the types of leprosy, the numbers of people registered and treated are equally uncertain.

Authorities are justifiably worried by the number of leprosy patients converging upon Addis Ababa, the capital, and begging in the streets in numbers unknown.

The problem of leprosy, especially with regard to its social aspects, seems impressive largely because so little is known about the factors affecting the life of the patient. The Princess Zenebework Memorial Hospital for Leprosy is the center attracting the patients, though some patients may have come to Addis Ababa because of the greater opportunities for survival in the capital. It is the policy of the staff of the hospital to send back to the rural clinics as many patients as possible, hoping that those who are accepted as outpatients will become faithful attenders at the hospital. The present report concerns a survey conducted among first attenders at the above hospital to determine the social background of the leprosy patients and to predict whether or not they would become regular attenders.

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METHOD

The study was conducted in the Princess Zenebework Hospital during the first five months of 1968. Patients were picked at random from the crowd waiting to be seen by the doctor till a total of 50 male and 50 female patients had been evaluated.

An interview schedule had been designed to determine the questions that were most relevant to the work of the hospital staff. All interviews were conducted through interpreters although we were able to understand most of the answers of the patients if they spoke the Amharic language. During the first few interviews the authors sat together to ensure that there were no differences in method which might significantly affect the results. The interview covered the following subjects: ethnic background of the patient and other descriptive data; travel to and residence in Addis Ababa; socioeconomic situation at home in relation to the illness; reactions of the environment including those of spouse and family; attitudes of the Church; native treatment; some details about the course of the disease; expectations regarding the stay in Addis Ababa; further treatment, course of the disease and admission; awareness of the illness.

Each interview took approximately one hour. Following it such aspects as the socioeconomic deterioration of the patient, the degree of incapacity, whether the patient was an outcast or not, patient's attitude towards treatment, and whether he would be a regular attender or not were scored on various scales.

The diagnosis made by the clinic doctor was accepted, although in some instances we had to rely on our own judgement because of patient's premature disappearance even before he had been to the laboratory for a skin test. In order to compare the stigma attached to skin disease in general we also interviewed 10 male and 10

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female patients who came with other conditions of the skin.

The cooperation of the patients was without exception good. Their quiet and subdued behavior was in striking contrast with the culturally accepted dramatic behavior of other sick people. Illness is often dramatized in Ethiopia as a result of the interaction between a patient and his compassionate companions. Therefore, tears, sighs and moans rarely bear a direct relationship to a patient's suffering. When the leprosy patients were relating their desperate stories in a calm and matter-offact voice the tears were often silently rolling down their cheeks.

FINDINGS

Sociologic background. Table 1 gives the age distribution of the 100 leprosy patients. Approximately two-thirds were younger than 30 years. The tribal origin, determined by the tribe of the father, was as follows: 66 per cent were Amhara, 19 per cent Galla, 11 per cent Gurage, 2 per cent Tigre, and 2 per cent were from various other tribes.

TABLE 1. Age and sex distribution of 50 male and 50 female leprosy patients.

Age (yrs.)	М	F	Total
0-10	2		2
11 - 20	14	14	28
21 - 30	13	20	33
31 - 40	7	11	18
41 - 50	11	3	14
51 - 60	3	1	4
61-	-	1	1
Total	50	50	100

Only 17 per cent were Moslems, half of the Galla and Gurage, and 6 per cent of the Amhara. The majority of the patients (39%) came from Shoa province, the others came from Gojjam (18%), Wollo (17%), and from various other provinces (16%). Nine per cent were residents of Addis Ababa, while one patient was a vagrant.

Approximately a third of the patients had travelled at least three days to visit the hospital. Two-thirds of these came from provinces other than Shoa, of which Addis TABLE 2. Marital state of 50 male and 50 female leprosy patients.

Marital state	М	\mathbf{F}	Total
Single	23	12	35
Married	17	10	27
Widowed	1.000	2	2
Divorced	10	26	36
Total	50	50	100

Ababa is the capital, but even patients from the latter province sometimes had to travel four or five days.

The socio-economic status is summarized in Table 3. There were no marked differences in this respect between the sexes. The marital state of the patients is given in Table 2. Twenty-three of the married patients did not have any children, either because all had died or the marriage had not been fertile (5 of the men and 12 of the women). About two-thirds of the patients had suffered economic deterioration as a result of their disease. Nineteen became beggars, half of them women, and 14 were still living with relatives.

Duration of the illness. Table 4 gives the duration of the illness with percentages admitting to having leprosy. Eight per cent expressed doubt and 13 per cent denied having the disease. It takes patients many years before they think of travelling to Addis Ababa, in 14 cases more than 10 years. Men did not tend to come sooner than women, nor did the place where the disease had first been observed by the patient affect his readiness to travel to the capital. In 62 per cent the disease had first been observed in the extremities, in 17 per cent on the body and in 21 per cent in the face.

Awareness of the illness. Forty-three per cent of the patients had recognized the disease from the time of its appearance. Forty-seven admitted to having relatives with leprosy. This group had significantly more often recognized the disease soon after its outbreak (28 patients) than those without relatives suffering from the disease (15 out of 53 cases; X = 6.4, 1 d.f., p<0.02). However, having relatives with

	Economic deterioration				
Household	Irrelevant	None	Still some income	Beggar	Total
With family	14	16	.32	9	71
Other relatives	1		4	5	10
Strangers	2	4	4		10
Alone	-		4	5	9
Total	17	20	44	19	100

TABLE 3. Economic deterioration of 100 leprosy patients in relation to their household.

leprosy did not cause people to make more haste with a visit to the hospital in Addis Ababa.

Traditional ideas about the disease. Forty-seven per cent denied any knowledge about the etiology of leprosy, 18 said they had gotten it from relatives, and 36 indicated supernatural causes. The latter were not so much the personal ideas of the patients as they were the opinions of the native specialists they had consulted. The Zar-priest who is himself possessed by a powerful spirit, suggests to the patient that an evil spirit has been inherited from his parents. The Wugesha and the Kalitsja, who appear to be more flexible in their approach, will suggest different causes. The patient is told that he left his house too early in the morning when the grass was wet and that this caused cracks in his feet, or the sharp light of the sun struck the patient while he was sleeping outside, or the patient fell from a horse. They include the many situations to which spirits are attracted, such as having intercourse out-

TABLE 4. Duration of illness in relation to awareness of having leprosy in 100 patients.

Duration of illness	Number	Percentage admitting to leprosy
Less than one year	15	73
One to 5 years	45	- 80
More than 5 years	40	80
Total	100	

side the house, coming too near a river, washing with water that was left in a pail outside during the night, or having spilled blood from a slaughtered sheep behind the house. The Orthodox priest will claim that it is a punishment from God. The patients merely seem to relate these opinions without too much conviction on their part. This was most obvious in those patients who had consulted different specialists and as a result could cite a whole list of causes. Many of the above mentioned causes are not regarded as specific for leprosy at all, they are also supposed to account for epilepsy.

Patients who stated that they got the disease from relatives appeared more convinced that it spread through skin contact, breastmilk, perspiration or the clothes of a leprosy patient.

Ideas about the cause of the disease are clearly related to the presence of relatives with the disease. Of the 18 patients stating that they got the disease from a relative 17 had a relative with leprosy. The eighteenth remembered a servant with the disease who used to carry her when she was young. In 13 of these cases it was an immediate relative. Only 20 (43%) of the 46 patients who did not know the cause admitted to having a relative with the disease. Nine of these belonged to the immediate family of the patient. Of the 36 who mentioned supernatural causes 10 (27%) had relatives with the disease, only two of the latter belonged to the immediate family of the patient.

Attitudes towards leprosy. Table 5 shows that the majority of the patients did not try

TABLE 5. Numbers of patients who tried to hide the disease from their relatives or spouse, with percentages who were later rejected.

Hiding from	Numbers	Percentages later rejected/ divorced
Relatives	9	44
Not hiding	76	18
Irrelevent	15	13
Spouse	15	73
Not hiding	43	39
Irrelevant	42	2 (1 patient)

to hide the disease from their relatives. The fact that they were later rejected did not correlate significantly with their earlier attempt to hide the disease. Twenty patients were rejected by their relatives.

The second part of Table 5 shows a significant relationship between the attempt to hide the disease from one's spouse and later divorce ($X^2 = 4.0$, 1 d.f., p < 0.05). However, of the 29 patients whose marriages had broken up because of the disease, 10 had initiated the divorce themselves, and four of the latter had been married after the onset of the disease.

Of the 46 patients who had been married before the onset of the disease 47 per cent had been divorced because of it. This was the case in 63 per cent of the 11 patients who had married after the outbreak of the disease. Table 2 shows that 27 patients were still married at the time of the survey, a third of these indicated that they had stopped having sexual intercourse. The majority of these patients (6) had themselves adopted this attitude out of fear that sexual activities might increase their symptoms. Not once did they mention the possibility of spreading the disease through intercourse.

Forty-nine patients, including those who were divorced, gave information on their sexual habits. Almost half (40%) admitted that their sexual life had been affected by the disease, and more than half of the latter group had taken the initiative in this respect. The same attitude was reflected in the fact that only seven of the males who were not too young to do so were still visiting prostitutes.

Almost half of the patients (43%) said that the people in their village were avoiding them, and 35 per cent told that the villagers insulted them by saying "leper," "mutilated one," or by telling them to stay away because they were spreading the disease. Quite a number of the patients foster an ambivalent attitude towards the latter aspect of their disease. When asked if they thought that the disease was contagious, 28 answered that they did not know, 41 denied it, and only 31 were convinced that they could contaminate others. Yet it was one of the insults used by the villagers, indicating the general view that leprosy is a contagious disease.

The Orthodox Church, playing an important role in village life, did not seem to get involved in the fate of the leprosy patient. Only 21 of the 83 Christians in this study had received advice or treatment, such as spraying with holy water, from the priests of their church. More than half of the patients said that they were still visiting the church, although this did not mean that they actually entered the building. Seventeen refrained from going, mainly out of fear of being rejected. This constituted another example of a patient's inclination to withdraw from society even before society rejects him. The attitudes of the Moslems were not markedly different.

Native treatment. Although people will resort to such measures as cutting the lesions of the skin or applying butter and leaves to the patches quite soon after they have discovered the disease, it takes them much longer to seek further treatment. Twenty-four per cent did not seek any native treatment at all, and only 23 per cent went for some form of help almost immediately. Twenty-nine waited up to two years, and 23 at least three years before they did anything about their disease. This attitude did not appear to depend on the household in which the patient was living, either with his family, relatives, strangers or alone. In each of these cases approximately 20 per cent did not seek any treatment. Even the fact that the patient

had recognized his disease as leprosy did not affect this attitude of waiting instead of getting early treatment. Of the 79 patients who admitted to having leprosy, 43 per cent sought treatment within a year, 34 per cent after at least one year, and 23 per cent did not take any treatment. For those who doubted or denied the disease the percentages were 23, 47 and 30. The differences between the two groups are not significant. Nor was there any difference in this respect between males and females.

Patients who were slow in seeking treatment or who did not try it at all were also slow in coming to the hospital. Of 15 patients who came to the hospital within a year from the onset of their disease 60 per cent had also sought native treatment within a year; of the 45 visiting the hospital after one to five years 44 per cent had sought native treatment; and of the 40 who had waited five years or more only 25 per cent ($X^2 = 6.5$, 2 d.f., p<0.05) had done similarly. The age of the patient did not affect his or her inclination to make haste with native treatment.

The types of native treatment available are manifold. Many patients (60) went at least once to the holy waters (Tebel). They stayed at such a place for a week at the most. The holy waters, often hot springs, are in fact the places where the disease is frequently recognized by other sick people. The latter will tell the patient that it is better to attend the hospital in Addis Ababa. Almost half of the patients (42%) visited native healers (Zar-priest, Kalitsja, Wugesha and Tanquai). These native specialists have their own standard approaches to any illness or other misfortune. These included killing a goat or chicken and applying its blood, or giving an amulet with a holy text inside. A trance state may be induced to discover the identity of the evil spirit causing the disease. However, quite often the healer will refrain from doing anything and advise the patient to go to the hospital in Addis Ababa. Only 21 people visited a nearby clinic or hospital. In the latter case they rarely attended for more than two or three months, quickly being dissatisfied with the little progress they made. Eleven patients resorted to various other treatments, such as local medicine applied by relatives.

Thirty-nine patients tried at least two different types of treatment, and 29 relied on modern medical services only.

Some medical aspects of the disease. Table 6 shows the classification of the leprosy patients in relation to the degree of incapacity. The grading was as follows:

- 0 : No deformity
- I : Visible stigmata of leprosy especially in the face; little or no loss of function.
- II : Ulnar paralysis of the dominant hand, but still able to hold a tool; or ulceration of either foot without gross loss of function.
- III: Loss of more than one-third of either foot, but still usefully mobile.

		Classifi	cation		
Degree of incapacity ^a	Lepromatous	Tuberculoid	Borderline	Unclassified	Total
0 -	4	4	2	2	12
I	15	8	4	3	30
II	17	10 .	5	6	38
III	2	1		3	6
IV	5	2	3	4	14
l'otal	43	25	14	18	100

TABLE 6. Classification of 100 leprosy patients with degree of incapacity.

^a See text for grading criteria.

IV: Blindness, inability to grasp a tool; or not usefully mobile from the point of view of employment because of severely damaged feet.

The lepromatous patients were by far the largest group. The proportion of cases with lepromatous leprosy (43%) is higher than that normally seen in outpatients (33%). This is because some patients were selected for the study before careful clinical examination had taken place, and in consequence the sample included a higher proportion of clinically obvious cases than it would have if it had been a random sample of all cases diagnosed as having the disease. The unclassified patients had the highest degree of incapacity with 38 per cent having at least Grade III; a similar grading applied to 16 per cent of the lepromatous, 12 per cent of the tuberculoid, and 21 per cent of the borderline cases.

The male to female ratio for lepromatous (L), tuberculoid (T), borderline (B) and unclassified cases did not show any marked differences, there being respectively 51,48, 64, and 38 per cent male patients. Nor did any of the above categories have more young people than the others, with respectively 37, 28, 28 and 16 per cent younger than 20 years. The percentages of patients in each category admitting to having leprosy did not show significant differences either, respectively 86, 68, 57 and 94 per cent.

There was no tendency of patients in any category to wait longer than in the others before visiting the hospital in Addis Ababa. Thirty-nine per cent of the lepromatous cases waited at least five years, 40 per cent of the tuberculoid, 42 per cent of the borderline, and 38 per cent of the unclassified ones. The lepromatous and borderline cases differed markedly from the tuberculoid and unclassified cases in the percentage of patients with the first observable signs in the face. The disease was noted to start in the face in 30 per cent of the lepromatous, in 42 per cent of the borderline, in one of 25 tuberculoid and in one of 18 unclassified.

The four categories did not differ markedly in the percentages with relatives suffering from leprosy (59, 36, 36 and 45%), nor in the percentages recognizing the disease as contagious (41, 16, 21 and 33%). The percentages still living with their families were also quite similar (69, 76, 64 and 72%).

Except for the unclassified cases there were no significant differences in the percentages seeking native treatment within a year (51, 40, 42 and 10%). Only one unclassified case went for native treatment within a year.

The tuberculoid cases became outcasts significantly less often (in 8%) than the lepromatous, borderline and unclassified cases (41, 35 and 55\%; $X^2 = 9.0, 1$ d.f., p=0.01).

Table 10 shows the duration of the illness, or the tendency of the patients to come to Addis Ababa in relation to the degree of incapacity at the time of the interview. Those having no visible signs (Grade 0) and those with serious incapacity (Grades III and IV) demonstrated the general pattern. However, those with visible signs in the face (Grade I) and loss of function tended to come somewhat earlier, only seven (24%) waited more than five years compared to 33 (47%) of the other categories $(X^2 = 4.9, 1 \text{ d.f.}, p > 0.05)$. Patients with some loss of function which could to some extent be concealed (Grade II) waited somewhat longer than the others, but not significantly so.

Some aspects of the follow-up of the patients. Table 7 gives the fates of the 100 patients. The first four categories making up 30 per cent of all cases could be consid-

TABLE 7. Results of the follow-up of 100 leprosy patients.

Follow-up	Number
Records lost	2
Did not reach laboratory	12
Disappeared after evaluation	9
Attended few times only	7
Returned to clinic near home	53
Regular attender	13
Admitted	2
No treatment necessary	2
Total	100

192

	Prediction of		
Decision of doctor	To be out- patient	Doubtful	Number of patients
Patient disappeared prematurely	77	23	23
To be returned to village	39	61	53
Accepted as out- or inpatient	63	37	22
Total			98

TABLE 8. Prediction of suitability as outpatient in relation to the decision of the doctor for 98 patients with leprosy excluding 2 not in need of treatment, in percentages.

ered failures. Only 22 patients, including two admissions, were accepted for treatment, 13 of these were still attending the clinic seven months after the interviews had been completed.

Fourteen of the 53 patients who were returned to their homes for treatment in a nearby clinic had, during the interviews, stated that they did not know of any nearby clinic; 16 had said that they had attended such a clinic for a maximum of three months, and 23 had never wished to attend the clinic in their neighborhood for the reasons mentioned further on in this report.

Table 8 shows the agreement between the doctor working in the clinic and the interviewers with regard to their suitability as outpatients. Twenty-three patients disappeared before any decision could be taken by the doctor. The agreement is not

TABLE 9. Attendance of 22 patients accepted for treatment in relation to the prediction of the interviewer.

	Fredic inter		
Attendance	patient	Doubtful	Total
Regular	10	5	15
Failure	4	3	7
Total	14	8	22

better than it would have been if left to chance $(X^2 - 4.8, 2 \text{ d.f.}, p > 0.05)$.

Table 9 shows what happened to the 22 patients accepted for treatment in relation to the prediction of the interviewers. The latter were correct in 13 (59%) of the cases, which is hardly better than a chance allocation of opinions.

The main purpose of this study was to identify those patients who would become regular attenders. All previously mentioned factors were examined again in order to determine whether it was possible to differentiate between the 20 patients who disappeared too soon, the 13 who became regular attenders, and the 53 who were returned to their homes to receive treatment there. Only very few distinctions could be found.

Significantly more people in the category of regular attenders had not immediately upon their arrival in Addis Ababa visited the clinic than in the other categories. Five (38%) of the regular attenders had waited at least a month as compared to only 10 (12%) of the others ($X^2 = 5.9$, 1 d.f., p < 0.02).

The people who were returned had less often than the others recognized their illness as leprosy from the very beginning, 19 (35%) of the former had done so compared to 24 (55%) of the other categories ($X^2 =$ 3.8, 1 d.f., p<0.05). They also had divorced their spouses less often because of illness than the other categories, in 11 (35%) of the 31 for whom this factor was relevant compared to 17 (70%) of the 31 for whom this factor was relevant compared to 17 (70%) TABLE 10. Tendency of 100 leprosy patients to go for help to Addis Ababa in relation to degree of incapacity at the time of the interview, in percentages.

	Degree of incapacity				
Duration of illness (yrs.)	0	I	п	III/IV	
Less than 1	18	20	13	20	
1 to 5	41	56	36	45	
More than 5	41	24	51	45	
Number of patients	12	30	38	20	

of the 24 in the other categories ($X^2 = 5.4$, 1 d.f., p<0.02). They indicated significantly more often that they had to leave Addis Ababa sooner than the others, 24 (46%) did so compared to only eight (18%) of the failures and regular attenders ($X^2 = 6.4$, 1 d.f., p<0.02). The failures distinguished themselves only in that they believed less often in a supernatural cause of their illness than the others. Only four (13%) of the former believed in a supernatural cause compared to 26 (39%) of the others.

The three categories did not differ significantly in any other respect.

The 20 nonleprosy patients. In the past the hospital seems to have had a certain reputation with regard to all diseases of the skin. Therefore, it was easy to collect 20 cases in a short time. Seven patients came because they wanted leprosy to be excluded, they had a variety of conditions such as scabies, mycosis, verrucosis and elephantiasis. One case with elephantiasis was an outcast. Five others were on the way to becoming outcasts, they had depigmentations, scabies, pemphigus, verrucosis and a mycotic infection. The latter patient had been told by a school-dresser to have his condition diagnosed and treated or he would be expelled.

DISCUSSION

The patients examined in this study were of an overwhelmingly rural and peasant background. The sample was remarkable in the predominance of Amharas. It indicates either a higher prevalence of leprosy in the

Northern provinces or a stronger orientation of this ethnic group towards the capital. Even the patients from the central province of Shoa showed this excess of Amhara (Amhara, Galla and Gurage: respectively 46, 25 and 8%) compared to the ethnic distribution in a sample survey of this province by the Central Statistical Office (1968) with respectively 33, 42 and 14 per cent. Another characteristic of the sample was the percentage of divorced patients, 20 per cent of the males and 53 per cent of the females, which was much higher than in other outpatient populations with 8 per cent of the males and 15 per cent of the females being divorced (1).

Perhaps it is easier to generalize about the attitudes of healthy people, doctors and authorities towards leprosy than about the attitudes of patients and the reactions of those who are near to them.

In Ethiopia leprosy is without any doubt a highly decodeable disease (3). In other words, it is very unlikely for a patient to go unrecognized either by others or by himself as suffering from the disease for a very long time. His symptoms and signs will not easily be mistaken to indicate another and less stigmatizing disease. The interviews revealed that not even the native healers and priests who are otherwise wary of modern medicine, want to risk their reputation and that they will readily advise the patient to seek help in Addis Ababa. Often the diagnosis will be confirmed by laymen attending the holy waters, and again the patients will be advised to go to Addis Ababa. There is a great fear in patients with other skin diseases that they might have leprosy or that they might be mistaken by others for leprosy as was shown in the interviews with the 20 nonleprosy patients.

There is little doubt about the stigma attached to the disease by those who are not directly involved. People entering the bus which links the area around the hospital to the center of the town, will cover their nose and mouth. When there is an important visitor to the hospital or to a hospital with a leprosy ward the patients may be confined to their wards. A doctor shaking hands with a leprosy patient will be looked at in anguish. Obviously there are few ways open to the patient in which to respond to his predicament. There is no virtue in becoming a "revealer" (³) and setting an enlightened example to other chronically disabled people. The only advantage in revealing the disease and wounds would be in the extent in which it supports attempts at begging. Being punished by God the patient becomes a beggar in His Name.

Concealment may to some extent be possible. For example, some depigmentations may disappear spontaneously or be localized in the buttocks where they can be effectively concealed for a long time. Otherwise it is not at all easy to hide the disease. For the patient to keep his clothes on at all times when others take them off in the field or when washing in a stream is in itself suspect. For him to avoid outdoor activities in a small village with its lack of privacy is no better, nor is disappearing to a nearby health center or to Addis Ababa from a community which customarily dramatizes illness. Up to this point it appears valid to generalize about leprosy in Ethiopia, and to state that in the majority of cases concealment of the disease is almost impossible, and to conclude that the only way open to the patient is that of resignation and acceptance of his changed social and self-identity. This attitude would explain the findings shown in Table 10. Only a small proportion of the patients made haste to travel to Addis Ababa whether they had incapacitating and stigmatizing lesions or not. This was all the more striking because the interviews revealed that the hospital is well known even in remote villages. Patients who received treatment will sometimes return to their villages and tell the people about their experiences. However, generalizing about the ways in which patients cope with their new situation, or about the reactions of those who are. close to them, seems out of place. On one end of the scale one can see the many patients who are still living with their families while increasing the number of their children; or those who find hospitality with countrymen and relatives in Addis Ababa, sometimes in a family with young

children. Somewhere in between is the woman living in a separate hut on the compound of her husband who had found himself another wife. On the other end of the scale of possibilities is the patient who got money from his relatives to travel to Addis Ababa with the message never to return.

There are many variables involved in the subsequent actions taken by the patient or his relatives. A family with more "inherited" cases is doomed, and although one of its members may succeed in fooling fate for a while and marry a healthy partner, the latter will disappear at the first signs of the disease. As an alternative the patient who "inherited" the disease may himself decide to withdraw from normal society and return to his ill-fated family. The diseased landowner stands some chance of avoiding total disaster by letting another farmer work his fields in exchange for half of the yield. A spouse may have shared the life of the patient for so many years that he or she will gladly carry the burden of misfortune; the same applies to the healthy mother who becomes a beggar on behalf of her diseased daughter with three children, whose husband has disappeared. Some patients are just unbeatable like the taxi driver who cheerfully lived on in Addis Ababa without ever entering the hospital at whose gates he had often delivered other patients during the seven years of his own illness. He simply could not accept defeat and succeeded in maneuvering his car up to a few months, before he finally came to the hospital, with little more left of his hands than the palms. A quarrel with his wife who had recently retreated to her brother's house had made him go to the hospital. These are but a few examples of the factors affecting the life of the patient.

The interviews provided ample evidence of the inclination of patients to self-isolation and withdrawal from normal activities, disguised as fear that these activities might enhance the disease. This was most obvious in the abstention from sexual activities. Anticipating a change of social identity the patient tries to overcome his anxiety by withdrawal, at the same time demonstrating a striking degree of fatalism and resignation with regard to his changed selfidentity. The threatening situation does not seem to provoke an immediate urge to seek treatment, probably because that would mean renewed exposure to the community. The same fatalism was found by Shah (7) in Bombay. He even spoke of a relative lack of curiosity in the patient about his disease.

The study completely failed in its purpose of identifying those patients who would become regular in their attendance at the clinic in Addis Ababa. The statistical value of the study was, of course, greatly reduced by the large number of patients who were returned to their homes and those who disappeared prematurely, together making up 76 per cent of the sample. The interviews failed to predict even this (Table 8).

The interviews showed that the majority of patients travelled to the capital mainly to be treated, and that upon arrival they did not waste much time in attending the hospital. After having postponed it for so many years, hoping for a spontaneous recovery as some said, they must have had pressing reasons for finally undertaking the journey, though the present study failed to reveal the ultimate reason. Therefore, it is puzzling why about a quarter disappeared even before they had been properly examined. One can only speculate on this shocking finding. Having concluded before that the predominant attitude among leprosy patients is one of resignation towards the disease, it follows that their expectations must at least have been of an ambivalent nature causing them to be put off easily if the reception at the hospital was unconvincing. Some clearly expected to be admitted, and to be relieved for a while of the desperate struggle for survival, others thought that the treatment would just be a matter of weeks enabling them to return home quickly. Any frustration in this respect could have led to rapid withdrawal if it was not countered by adequate and perhaps lengthy and repeated explanations for which there is not sufficient time in a busy clinic. Even a proper understanding of the social and medical problems of a case of leprosy on the part of the doctor

can still leave a considerable discrepancy between the overall assessment of the latter and the sense of uniqueness of the problem for which he travelled to Addis Ababa held by the patient. The lack of a clear response to this unique problem might have been explained by the patient as another example of rejection by society, a situation to which he had already become resigned. Marshall, Maeshiro and Korper (6) found that even in cases of sufficient factual knowledge of leprosy a deeper conviction that leprosy is not curable will prevail in the minds of many people. This shows to what lengths one has to go in order to catch and hold the attention of patients who do not have this theoretical knowledge but who consider leprosy an "inherited" affliction or a curse from God not necessarily acquired by themselves but by their ancestors.

The lack of agreement between the interviewers and the doctor in the clinic was surprising. The attitudes of the patients toward clinics near their homes as revealed during the interviews do not suggest great success with regard to treatment of those patients who were returned to their homes and referred to these clinics.

The failure to predict the follow-up of those who were accepted for treatment, after an interview of an hour, is even more disappointing. Perhaps too many human variables are involved as is suggested in the above discussion. The factors ultimately forcing the patient to travel to Addis Ababa after years of suffering could not be identified, and they will probably determine the tenacity of the patient in pursuing treatment. Towards the end of the series of interviews the authors felt that a grading of the repulsiveness of the patient could have been helpful, although the finding that those with early lesions in the face did not make more haste in coming to Addis Ababa does not seem to support this opinion. That the degree of incapacity is not related to regularity of attendance is, perhaps, less surprising in this society in which one is again and again confronted with the most extraordinary examples of adjustment to physical disability without any of the instruments available in modern society

which tend to make people emotionally more dependent. Besides, this physical disability and its unashamed exposure to the public is an accepted means of existence in Ethiopia once the patient has adapted to his changed social identity.

It was possible during the interviews to make a superficial psychiatric assessment of the patients. There were two cases of definite mental retardation and one young man with symptoms of anxiety and depression. The three cases of psychiatric illness in this group compare favorably with the approximately 18 per cent seen in almost any other group of outpatients (2). This seems to indicate, from the point of view of emotional adjustment, that people cope extremely well with their insecurity and anxiety provoking situation. The majority appeared to resort to the defense mechanisms of repression and denial of their emotions, almost ignoring the repugnance of their mutilations, the discomfort resulting from swollen mucous membranes in mouth and throat, and the paralysis and anesthesia in their limbs. This repressive behavior in cases of illness and material loss is in striking contrast with what is culturally accepted as reaction to disease in general.

Generally in Ethiopia material loss and injustice results in protracted court cases involving as many witnesses as possible. Losing the case reflects on one's honor as a man. This is not so in the case of leprosy patients who have forfeited their rights in the community and who have to accept their losses. Those interviewed appeared to have done so without indignation towards the other party. Neither did we observe a strong sense of guilt related to the emergence of the disease, nor a tendency to introjection of aggression interfering with a patient's desire to hang on to life.

It should be stressed that this is normal coping behavior enabling a patient to survive at the considerably lower social level at which he is now forced to live, often with great tenacity.

It appears that this study has served to expose social aspects of the problem of leprosy in Ethiopia rather than to determine the relationship between those aspects and a patient's preparedness to receive regular treatment.

SUMMARY

One hundred newcomers to the Princess Zenebework Memorial Hospital for Leprosy in Addis Ababa were subjected to an intensive social interview. It proved impossible to predict whether they would become regular outpatients or not.

The attitudes towards leprosy in Ethiopian society are discussed.

RESUMEN

A cien recién llegados al Hospital de Lepra Princess Zenebework Memorial Hospital pour ba se les sometió a una encuesta social intensa. Se comprobó que era imposible predecir si se convertirían en pacientes ambulatorios regulares o no.

Se discuten las actitudes con respecto a la lepra en la sociedad etiópe.

RÉSUMÉ

On a procédé à une enquête sociale approfondie chez 100 nouveaux malades admis au Princess Zuenebework Memorial Hospital pour la lèpre, à Addis Ababa. Il s'est révélé impossible de prédire lesquels de ces malades deviendraient des malades ambulatoires réguliers et lesquels deviendraient des malades ambulatoires irréguliers.

Les attitudes de la société ethiopienne envers la lèpre sont discutées.

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