A Leprosy Health Education Project[1]

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The aim of health education is to produce changes in behavior and this requires more than simply giving information. Various theories of behavioral change have been formulated by social psychologists and others. For example, according to Cartwright's theory ([1]) it is necessary to produce certain cognitive, motivational and action structures. To change cognitive structure new information must be presented to the people in a form which is clear and acceptable to them. To change motivational structure the required behavior must be seen as a path to some goal the person has. To provide the right action structure the person must have an easily available opportunity to carry out some specific action to produce the required behavior.

According to Lionberger's diffusion theory ([2]), adoption of an innovation takes place in five stages: awareness, interest, evaluation, trial and adoption. For the first two stages the mass media can be effective, but for the later stages personal influence is more important and for final adoption personal experience is what matters. These theories are summarized and compared as follows:

Stage	Lionberger	Cartwright	Influences
1	Awareness	Cognitive	Mass media
2	Interest		
3	Evaluation	Motivational	Personal influences
4	Trial	Action	
5	Adoption		Own experience

Fear is sometimes used in an attempt to motivate people to carry out some health practice. However, strong fear may be ineffective or even have a negative effect. Very strong fear may produce an emotional block so that the person refuses to think about the subject at all. This may be a particular danger in relation to leprosy since there is so much strong fear of the disease. However, the lesion patch is often not recognized as connected with leprosy and may not produce any fear.

METHODS

The project is being carried out in five *panchayats*[3] in Kanniambadi Block.[4] The objective are as follows:

1. To increase acceptance and understanding of leprosy by the public so that they will not avoid harmless contact with patients and will be willing to employ them.
2. To motivate patients to come early for treatment and to continue treatment regularly.
3. To motivate patients with anesthetic hands or feet to take care of them properly.

An intermediate objective is to change knowledge of and attitudes towards leprosy so as to produce the above changes in behavior.

Initially a KAP (knowledge, attitude and practice) survey was carried out on a random sample of the general public (267 respondents) and all patients (150 respondents). The educational part of the project will include information, motivation and action stages, related to the theories discussed. Finally, the KAP will be repeated for evaluation and other statistics collected from records.

Village leaders have also been identified while carrying out the initial KAP survey. These include not only "formal" leaders with official positions but also other influential people, "informal leaders."

Information stage. This will include training camps for leaders, small group meetings in villages, training of the paramedical team, public meetings, film shows, slides in cine-

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[3] A village or group of hamlets with an elected "Panchayat" to administer village affairs.

[4] Administrative division covering a population of about 80,000.

mas, exhibition, drama, etc. The information to be given will include the possibility of complete cure with early treatment, significance of the patch, degree of infectiousness and cause due to bacillus.

Motivation stage. The training of various groups will continue, including also teachers, Madhar Sangam members and any other existing groups. Health committees will be formed in each village, discussions held and talks given by exleprosy patients (if willing). Small group discussions will be held street by street.

In discussion, emphasis will be on early detection and treatment and the fact that the disease is easily curable and only moderately contagious. Fear will not be used, deformities will not be emphasized and as much reassurance as possible will be given. Separate motivational sessions will be held for patients and their families with special emphasis on the need for regular treatment and on the care of hands and feet. Other patients will be used as much as possible to pass on the education to the rest of the group.

Action stage. This phase will overlap with the motivation stage. Factors such as convenience of clinic location and time will be considered. Reminders will be given and irregular patients visited. In one village the clinic will be made part of a general clinic so that patients can come without fear of being labeled with the stigma of leprosy. In another village the drugs will be distributed through depot holders or by the paramedical worker so that less frequent visits to the clinic are required.

The present prevalence of leprosy in the five *panchayats* taken for the study is 2.44%. The lepromatous patients comprise 9.6% of the total number of leprosy patients.

TABLE 1. *How does leprosy affect the body?*

Signs mentioned	% Respondents Public	Patients
Deformities	70	81
Ugly look	48	43
Ulcers	36	59
Other lesions	19	27
Patch	16	11
Other skin changes	10	11
Swelling or bad water	9	12
Anesthesia	0.4	2
Other	5	11
Don't know	8	1

RESULTS

At present the initial KAP has just been completed and analyzed and the results are presented here. Respondents often gave multiple answers to the questions asked. Therefore the percentage figures given in the tables do not add up to 100%. The tables are prefaced by the questions asked, these being representative of the many questions used in the study.

Knowledge. *Signs of leprosy (Tables 1, 2).* Of the general public, 94% said they had seen someone with leprosy. When asked how leprosy affects the body, the most common signs mentioned were deformities, ugly look or ulcers. The patch was only mentioned by 16% of the general public and 11% of the patients. When asked about the first sign that can be seen, 46% of the patients but only 16% of the general public mentioned the patch (Table 2); a few more gave a different description of the patch ("themal,"[5] circular thing); many did not know.

Patch (Table 3). When asked specifically about a light colored patch, 57% of the general public and 60% of the patients said it was "themal" or a bite; only 13% of the general public and 18% of the patients said it was leprosy (Table 3); some did not know.

TABLE 2. *What is the first sign you can see?*

Sign mentioned	% Respondents Public	Patients
Patch	16	46
"Themal" circular thing	5	8
Other skin changes	12	12
Deformities	9	2
Lesions (ulcers, etc.)	12	11
Ugly look	9	2
Swelling	8	1
Other	14	4
Don't know	46	38

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[5] A name given by traditional practitioners to certain kinds of patches on the skin which they believe are not connected with leprosy.

TABLE 3. *Some people have a light-colored patch on the skin. What disease is this? Some people have a light-colored patch on the skin with no feeling in the area. What disease is this?*

	% Respondents			
	Patch		Patch with anesthesia	
Cause of patch	Public	Patients	Public	Patients
"Themal"	39	39	2	10
Bite	18	21	17	5
Related to sexual intercourse	9	9	3	5
Leprosy	13	18	41	59
Other	6	1	2	1
Don't know	18	22	38	21

However, for a patch with anesthesia, 41% of the public and 59% of the patients said it was leprosy. When those who did not say it was leprosy were asked whether this patch had anything to do with leprosy, 9% of the public and 7% of the patients did not know; 9% of the public and 3% of the patients said no; only 5% of the public and 2% of the patients said yes.

When asked what they would do if they had a patch, 50% of the public and 64% of the patients mentioned allopathic treatment, but 20% of the public and 13% of the patients would go to traditional practitioners. When asked where people go for treatment when they have a light-colored patch on the skin, fewer respondents said allopathic treatment and more said traditional treatment. For a patch with anesthesia, a larger percentage (61% general public, 82% patients) would have allopathic treatment.

Cause of leprosy and deformities (Table 4). Forty-eight percent of the public and 63% of the patients did not know the cause of lep-

TABLE 4. *What is the cause of leprosy? What is the cause of leprosy patients getting deformities?*

	% Respondents			
	Leprosy		Leprosy with deformities	
Cause	Public	Patients	Public	Patients
God's will, fate, karma,[a] sin	10	7	9	6
Hereditary	12	5	2	3
Spoiled blood and bad water	–	3	8	1
Sexual immorality	18	6	–	–
Infectious disease	12	2	–	–
Contact with patient	19	9	–	–
Insects/germs	–	1	14	11
Developed stage of disease	–	–	15	12
Nerves affected with disease	–	–	5	4
Irregular treatment and no precautions taken	–	–	5	7
Other	24	15	7	7
Don't know	48	63	48	48

[a] Blessings or misfortune believed to be due respectively to good or bad deeds in previous life.

rosy. The public mentioned sexual immorality, heredity, God's will, fate, karma, sin; however, some also said infectious disease. Only a few patients said germs/insects. More patients than the general public did not know; other patients gave the same causes as the public. For the cause of deformities, a variety of replies were given, including the same ones as for the cause of the disease, but a few more said germs/insects and some said it was due to the developed stage of the disease, the nerves being affected by the disease or irregular treatment and precautions not being taken. Forty-eight percent of the public and 48% of the patients did not know the cause.

Type of leprosy. There was no knowledge of the actual types of leprosy. When asked about this respondents mentioned deformities, ulcers and cracks, patch or "themals," etc.; 54% of the general public and 64% of the patients did now know. Of the general public 62% together with 47% of the patients thought that all types of leprosy are infectious. Only 3% of the public and 16% of the patients thought that not all types are infectious; 35% of the public and 36% of the patients did not know.

Spread of leprosy (Table 5). Of the general public 76%, and of the patients 53% thought that leprosy spreads from person to person through prolonged or close contact with a patient or by eating together, sharing bedding or utensils, or contact with patient's excrement. Some did not know and a few thought that it spread due to germs in the patient's breath.

TABLE 5. *How does leprosy spread from one person to another?*

Method of spread	% Respondents Public	Patients
Hereditary or not from person to person	4	6
Flies and mosquitoes	14	7
Sexual contact	6	3
Prolonged or close contact with patient, eating together, sharing bedding, utensils, etc.	76	53
Contact with patient's excrement	39	26
Germs in patient's breath	12	9
Don't know	17	34

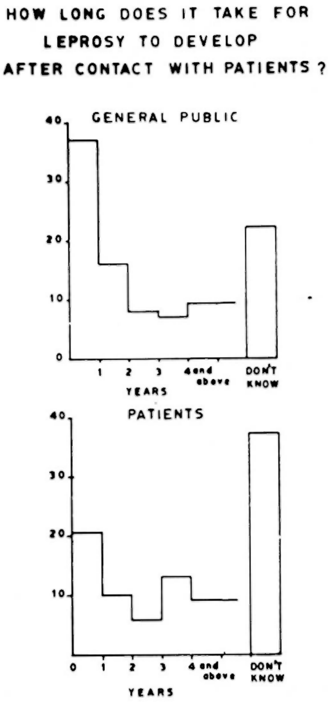

FIG. 1. Distribution of replies to question about incubation time.

With regard to the incubation period (Fig. 1), most of the general public thought that it is only one or two years or else they did not know. Only a smaller percentage of the patients thought that it is only one or two years and more did not know.

Prevention (Table 6). To prevent the spread of leprosy some thought allopathic services should be used and check-ups done; others thought patients should be isolated. Some of the public mentioned avoiding contact with patients or sharing food, articles, etc. with them; only a few patients said this. Some did not know.

There was very little knowledge about the prevention of deformities. Of the general public 56% and of the patients 61% recommended early and regular allopathic treatment; 11% of the general public and 1% of the patients said there is no prevention; while 35% and 41% respectively, did not know.

Treatment and cure. Responses with regard to treatment of the patch have already been described. Fifty-two percent of the public and 73% of the patients held that

TABLE 6. *How can you prevent leprosy from spreading in the community?*

Method of prevention	% Respondents Public	 Patients
Hygiene and sanitation	8	4
Immunization	12	6
Allopathic services and check-up	34	30
Traditional practitioners check-up	2	1
Avoiding contact, sharing food, sharing articles, etc.	24	7
Isolating patients	26	12
Patients should be put to death	1	1
No prevention	2	1
Don't know	24	37

leprosy can be cured completely; but for leprosy with deformities only 19% of the public and 24% of the patients believed so. Thirty-three percent of the public and 12% of the patients believed that leprosy cannot be cured at all and 13% of both groups did not know. For leprosy with deformities, 49% of the public and 48% of the patients thought that it cannot be cured at all while 24% and 26%, respectively, did not know.

Of those who believe that leprosy can be cured, 79% of the public and 86% of the patients say that it is through allopathic treatment or special care taken by doctors. For leprosy with deformities, the corresponding figures are 90% and 54%, respectively.

Those who thought leprosy cannot be cured said that they have not seen anyone cured, that there is no medicine for it, that it can only be partly cured, or (for patients) that the germs have already eaten the fingers. For leprosy with deformities, they also said that the deformities cannot be cured. When asked what can be done about the deformities, 38% of the general public and 54% of the patients mention allopathic treatment; while 54% and 38%, respectively, did not know. When asked where leprosy patients go for treatment, 79% of the general public and 90% of the patients say they take allopathic treatment.

The kind of treatment given is said to be tablets and injections, blood tests, ulcer treatment or special footwear. Many of the general public did not know what kind of treatment is given. The kind of allopathic treatment said to be given for the patch is similar, but more patients said they did not know. For the few who mentioned traditional treatment, most said that the treatment given was leaves, herbs, oil, traditional medicines, diet restriction or branding. When asked what else can be done for a person with leprosy, 73% of the public and 86% of the patients did not know. A few said that nothing can be done, some said that allopathic treatment might help and others said that the government should provide.

When asked how long treatment must be taken to cure leprosy, some of the public said only one, two or three years but some also said life-long treatment was necessary; many did not know (Fig. 2). Only a very few patients said less than four years; most said either life-long treatment, or until cured, or did not know.

Rehabilitation (Table 7). Respondents were asked what sort of work those who are cured of leprosy can do and the same question was also asked with regard to those cured of leprosy who had deformities. For those without deformities, 70% of the public and 65% of the patients thought that they can do hard work or all kinds of work; 67% of the public and

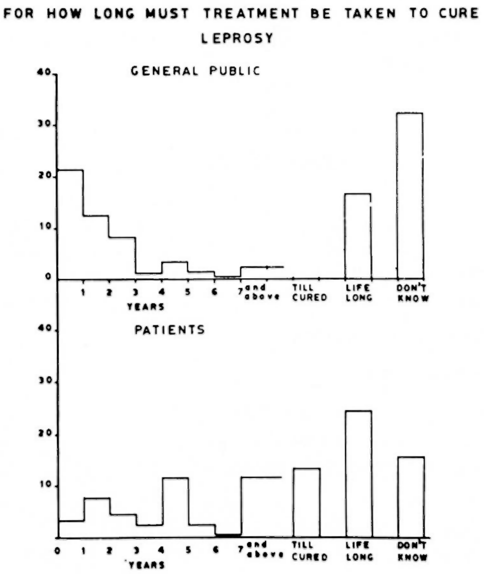

FIG. 2. Distribution of replies to question about duration of treatment.

TABLE 7. *What sort of work can people without deformities who are cured of leprosy do? What sort of work can people with deformities who are cured of leprosy do?*

	% Respondents			
	Without deformities		With deformities	
Type of work	Public	Patients	Public	Patients
Hard work	51	36	–	–
All kinds of work	19	29		3
Previous job	5	5	–	–
Small business	7	10	–	–
Light work	12	12	19	27
Cannot work because of:				
Weakness	8	3	6	14
No reason given	–	–	61	50
Other	–	–	5	4
Don't know	14	6	9	7

64% of the patients thought that patients with deformities could not work; 19% and 27%, respectively, thought they could do light work.

Paramedical worker. Only 17% of the public knew the paramedical worker but 63% of the patients knew him; only 9% of the general public but 58% of the patients knew that he carries out physical examinations. Twelve percent of the public and 7% of the patients mentioned that the nurses from the Rural Health Center, Bagayam advise people to take treatment.

Attitudes. Positive scores indicate a positive attitude to leprosy and negative scores a negative attitude. If a respondent agreed with a positive statement or disagreed with a negative statement this score is positive for that item, and vice versa.

Attitude score can vary from -100% to +100%. The mean score was -12.3% for the public and +2.56% for the patients. The difference is highly significant ($p < .001$, t test) (Table 8).

TABLE 8. *Attitude toward leprosy.*

	Attitude score %	
	Public	Patients
Mean score	–12.3	+2.56
S.D.	26.3	8.95
No. of respondents	267	150

Difference highly significant ($p < .001$, t test)

Scores for separate items for both the public and the patients indicated most negative scores for items dealing with isolation in separate hospitals, possibility of patients with deformities doing work, and willingness to buy anything in a shop run by a leprosy patient. Also strongly negative were those items dealing with the life of the leprosy patients, although two of these were less negative for patient respondents that for the public. Questions on contact with leprosy patients were also slightly negative and the items about living on the same street was slightly positive. Most items on treatment were slightly positive, and one about avoiding deformities with early and long treatment as well as one on traditional treatment were strongly positive. For patients, however, the item on the possibility of taking treatment for several years is slightly negative, presumably because they themselves have found difficulty in doing this. Other positive items include the occurrence of leprosy not only in poor people and beggars but also in people who look strong and healthy; one item on possible occurrence in the respondent's family was strongly positive.

Some studies which claim to measure attitudes are actually only measuring stated opinions and the scales which have been developed for measuring attitudes are not used. Scales such as the Likert scale used here measure attitudes indirectly through responses to statements of opinion. Direct questions about people's opinions may not give reliable results; for example, respondents may answer in the way they think the interviewer wants.

The attitudes reported here will be compared with attitudes measured in the same way after the educational program.

Practice (patients). *Onset of disease.* Seventy-one percent of the patients had had the disease for five years or more, 53% first realized that they had it five or more years ago, 73% knew about it from allopathic practitioners, and 9% from traditional practitioners.

Treatment. Seventy-six percent took allopathic treatment and 19% traditional treatment; 26% went for treatment within three months of first knowing they had the disease, while 22% went only after five years (Fig. 3). Sixty-seven percent said pills were given, others mentioned blood test (22%) or test for anesthesia (26%). Twenty-one percent also went elsewhere for treatment; 15% changed from traditional to allopathic treatment and 5% did the opposite.

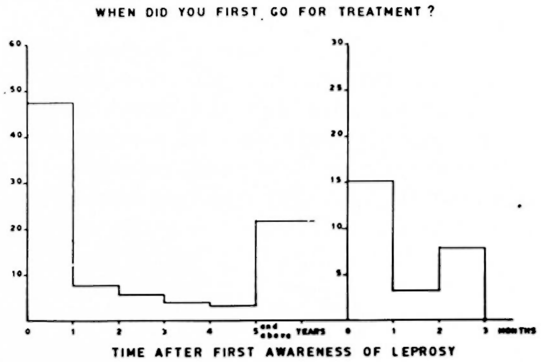

FIG. 3. Distribution of replies to question about delay in taking treatment.

TABLE 9. *Why did you not go for treatment earlier?*

Reason	% Respondents
Thought patches were insect bite	30
Did not know it was leprosy	14
Hoped patches would disappear	11
Did not know where to go for treatment	7
Patch gave no trouble	7
Thought leprosy incurable	5
Hoped to be cured by traditional treatment	3
Could not come so far to clinic	1

People who advised them to take treatment were mainly doctors (26% of respondents) and nurses from the Rural Health Center (27%), other people they knew well (16%), paramedical workers (9%), and family members (9%).

Reasons for not coming early for treatment were mainly lack of knowledge that the patch was a sign of leprosy or the idea that it was only an insect bite, or not knowing they had leprosy (Table 9). Only 57% of the patients were still taking treatment, all allopathic; 53% were going to leprosy roadside clinics and 4% to the CMC Hospital or the Government Hospital. Fifty-two percent go every month or more often, 38% have been within the past one month and 11% within one or two months.

A number of different reasons were given for stopping treatment (Table 10): not knowing clinic day and time, no money to pay for treatment (actually it is free), dissatisfaction with treatment, patch disappeared, heat and diarrhea due to pills, and inability to walk. Forty-three percent had stopped taking treatment but only 5% had completed the treatment.

TABLE 10. *Why have you stopped taking treatment?*

Reason	% Respondents[a]
Don't know clinic day and time	8
No money to pay for it	6
Dissatisfied with treatment	5
Patch disappeared	4
Side effects (heat and diarrhea)	3
Can't walk (old and weak or ulcer on feet)	3
Patch no trouble	2
Other	8
Not treated yet	1
Treatment completed	5

[a] Only asked of those respondents who stopped taking treatment (43%). (Due to multiple answers, the total adds up to more than 43%.)

TABLE 11. *Convenience of clinic.*

Did you find it hard to get to the clinic?	% Respondents
Yes	24
No	72
No treatment yet	4
If yes, why?	
Cannot walk	8
Too far to walk	7
Would lose wages	4
Other	5
If yes, where would you like to take treatment?	
Don't want it anywhere	20
Other	3

TABLE 12. *Would you prefer to go to a clinic especially for leprosy patients or to a general clinic with other patients? Why?*

	% Respondents
Leprosy hospital	76
General hospital	11
Don't want to go anywhere	8
Any hospital	4
Reasons for leprosy hospital	
Better treatment and care	45
Roadside clinic convenient	12
Should continue treatment at one place	11
Other	–
Reasons for general hospital	
People will talk; leprosy hospitals only for advanced stage	7
Free and better medicine	3
Other	1

All said that clinic times were convenient but 24% found it difficult to come (Table 11), mainly because of difficulty in walking or having to lose wages. When those who said they found it difficult to come to the clinic were asked where they would like to take treatment, almost all answered that they did not want to take treatment anywhere.

Seventy-six percent would prefer to go to a special leprosy hospital or clinic and only 11% preferred a general hospital (Table 12). Reasons given are that in such hospitals better treatment is given, that roadside clinics are conveniently close and that treatment should be taken continually in one place. Reasons for preferring a general hospital are that people will talk badly about them if they go to a leprosy clinic and that such clinics are meant only for those with advanced disease.

Treatment at home was preferred by 65% so as to save time and loss of wages and because it is good for those who cannot come to the clinic (Table 13). Reasons for not preferring home treatment were that the doctor will examine them in the hospital and there is no difficulty in going to the clinic. Also a few say neighbors will talk badly about them if treatment is given at home.

Thirteen percent said that they had reaction to the drugs, 5% believing this was due to excessive heat in the body, and 2% that it was due to the pills. Six percent stopped

TABLE 13. *Would you prefer to take treatment at home? Why?*

	% Respondents
Yes	65
No	30
Treatment completed	3
Reasons for yes	
Helpful for those who cannot come to clinic	28
Save time and days wages	28
Will take regularly and be cured	9
Other	1
Reasons for no	
At hospital doctor examines us	15
No difficulty in going to hospital	6
Neighbors will talk	3
Health talk and neem oil given at clinic	3
Treatment completed	1
Don't like to take treatment	2

treatment because of this.

Expectations of cure. Seventy-eight percent expected complete cure; of these 4% were already completely cured. Seventy-nine percent said yes when asked directly if they expected complete cure, 11% said no and 6% did not know. Twenty-two percent expected to be completely cured in one year, 15% in one to two years, 20% did not know. Only 34% expected that deformities could be corrected, 34% did not expect this, and 21% did not know. Most of those who thought that correction is possible say that doctors at Bagayam will cure it or it will be cured by regular treatment or with POP and treatment for improving the general condition.

Anesthesia, injuries and precautions taken (Tables 14-17). Fifty percent said they have places with no feeling on the body. For 63% of these the places were hands or feet, 20% having it on both feet and 15% on both hands. Fifteen percent said the cause of the anesthesia was the initial stage of leprosy, 9% said it was due to patches, 8% to irregularity in treatment and 10% did not know.

Forty-two percent did not take any precautions to avoid damaging hands and feet (Table 14), while 36% said that they were careful to avoid injuries while working; 9% wore chappals when they went out, 9% were careful to avoid burns when cooking and 7% held hot things with a cloth. Seven percent avoided hard work and physical strain. However, when asked specifically how they held a hot tumbler, 65% said that they held it with a cloth while 30% did not use anything to hold it. Thirty-five percent noted that they had injuries to hands or feet (Table 15). Many different causes for the injuries were given. When asked if they knew other causes for such injuries, 81% said no and 6% mentioned anesthesia. Sixty-nine percent said they would go to the hospital for a dressing if they got an injury, and 11% would apply some medicine themselves.

Fifty-seven percent indicated that they wear chappals, 38% sometimes and 17% always; 23% wore leather chappals, 9% plastic, 9% rubber and 9% microcellular rubber. Not a single patient used tools with protective material.

Only 10% found that the disease had affected their work in any way; 3% said they

TABLE 14. *What precautions do you take to avoid damaging your hands and feet?*

	% Respondents
No precautions	42
Careful while working	36
Wear chappals when going out	9
Careful when cooking	9
Hold hot things with cloth	7
Avoid hard work and avoid physical strain	7
Other	5

TABLE 15. *Have you had any injuries to your hands or feet? How did this happen?*

	% Respondents
Yes	35
No	65
Blisters broke and ulcer formed (no idea how blisters formed)	8
Could not feel hot thing, got blisters, then ulcers	1
Blisters due to *kettanir,*[a] then ulcer	3
Hit foot against stone or stump	9
Thorn prick in foot, then ulcer	5
Sharp instrument when working	4
Other	7
Don't remember	1

[a] Bad water.

TABLE 16. *Whose advice would you take about what to do for your disease?*

	% Respondents
Parents	17
Village leaders	15
Doctors	14
Family elders	11
Nurses or paramedical workers	6
Spouse	4
Friends	3
Other	1
Don't consult anyone	30
Don't know	1

became tired easily and 3% noted blisters. Seventy-one percent took no precautions to protect their families while 19% used separate plates and other things.

TABLE 17. *Family's reactions.*

	% Respondents
What did your family say when they learned you had leprosy?	
Did not say anything	60
Hate me because of fear	13
Advised to take treatment	11
No one in family knows	9
Were very worried	3
Ill treatment, husband ran away, wife scolds me, etc.	5
Don't know	2
What did they advise you to do?	
To take or continue allopathic treatment	36
Not to touch the child	7
To take treatment regularly	7
Take traditional treatment	5
Other	1
Did not agree it was leprosy	28
No advice given	41
Don't know	3

Advice from others (Tables 16, 17). Many different sources of advice were mentioned (Table 16), most important were parents, village leaders, doctors and family elders. Sixty percent stated that their family did not say anything when they knew the respondent had leprosy, 11% said that they were advised to take treatment and 9% stated that no one in the family knew about it. Thirty-six percent were advised to take allopathic treatment by their family. For 28% the family did not accept that the respondent had leprosy.

DISCUSSION

A study by Selvapandian *et al* (5) with 50 respondents from three villages in Kanniambadi Block near Vellore, and 50 respondents in Madras showed a low level of knowledge and very negative attitudes to leprosy. No questions were asked about the patch.

The most commonly believed cause of leprosy was sexual intercourse (72% urban and 82% rural respondents), and the next was heredity (56% urban and 72% rural). Answers to questions about prognosis and outlook were predominantly negative, as were also responses to questions about the possibility of employment. Most respondents did not want even casual contact with leprosy patients. The infectiousness of the disease was much exaggerated and it was not known that only certain kinds of leprosy are infectious.

Another study in one village (3) indicated that most people attribute leprosy to sexual intercourse and consider it to be a later stage of venereal disease. Some also said it was hereditary and some that it was due to dirt. Treatment was said to be by a doctor or by a traditional practitioner in another village who specialized in what is called *mēganīr,* which is believed to be one of the stages between venereal disease and leprosy. A number of respondents did not like to talk about leprosy at all. The patch was thought to be due to a bite and treated at home with leaves or by a traditional practitioner, or no treatment was taken. Only when deformities appeared was the disease believed to be leprosy and for this most people would go to a doctor.

Another study in Kanniambadi Block, near Vellore, and other places (4) tested various hypotheses. It was found that attendance at clinics increased after a program of health education, that those patients with deformities more often had to change their job and that those who were hospitalized and given training accepted the use of protective gloves more than those who were not hospitalized. A knowledge and attitude study indicated practically no knowledge of the different types of leprosy and that certain kinds are not infectious and a strongly negative attitude towards leprosy patients. The attributed causes were the same as already described except that 62% of the urban respondents mentioned bacillus. Most respondents thought that leprosy seriously affects the functions of life, e.g., patients could not perform skilled jobs. Most preferred treatment by hospitalization rather than home treatment.

Most employers would not employ leprosy patients especially if they had deformities.

In the present study, lack of knowledge of the connection between the patch and leprosy is similar to what has been observed before (3), as was also the attribution of it to a bite or "themal." The present study indicates that if the patch is anesthetic it is more often recognized as related to leprosy. Causes mentioned are similar to those found in other studies, i.e., sexual immorality, heredity, etc. (3-5), but fewer said sexual intercourse or heredity. No knowledge of the different types and little knowledge that only certain kinds are infectious is also similar to previous findings (4,5).

Ideas about possible employment of leprosy patients seemed a little more positive than has been found before. For example, Selvapandian (4) found that 90% (of 50 rural respondents) agreed that a leprosy patient has absolutely no hope of leading a useful life if not cured completely, and 52% thought that even with suitable facilities a leprosy patient could not be made to lead a useful life. This contrasts with present results where 70% of the general public thought that cured leprosy patients could do all kinds of work or hard work, and 19% thought that even patients with deformities could do light work.

CONCLUSIONS

Patients in general show more knowledge and more positive attitudes about leprosy than the general public. There is clearly a great need to educate the public about the significance of the leprosy "patch." Also, the knowledge that only certain kinds of leprosy are infectious might help at least to some extent in reducing exaggerated fears. Already there seems to be much preference for allopathic treatment although less so as related to the "patch." There is some evidence for the effect of health education already carried out, especially about the cause of the disease and prognosis, when these results are compared with others.

A large number of patients have stopped treatment before completion of the course and the reasons for this are not quite clear. Reasons given do not seem adequate or consistent. These patients seem to lack motivation to come for treatment. Most patients seem to prefer a special leprosy clinic to a general hospital but also many would prefer home treatment. It seems that this might be worth trying at least for those who have difficulty in walking. More education is needed for the patients about causes of injuries and precautions to be taken.

SUMMARY

Results of a survey of knowledge and attitudes of the general public towards leprosy and knowledge, attitudes and practices of leprosy patients are reported. This survey is the base line for a health education project, based on social psychological theories of behavior, which is described. The results of the survey show that the general public has very little knowledge about leprosy; patients have more knowledge. Attitudes measured with a Likert scale are negative for the general public and only slightly positive for the patients. Allopathic treatment for leprosy is preferred by most, but many do not relate the "patch" to leprosy and therefore do not seek early treatment. In addition, many patients do not complete the treatment. There is much need for health education.

RESUMEN

Las conclusiones presentadas aquí, derivaron de un estudio sobre los conceptos que tiene el público en general, acerca de la lepra, en comparación con los conceptos que tienen los pacientes con lepra. El estudio se basó en una amplia serie de preguntas hechas a 267 individuos sanos y a 150 pacientes con lepra. Se discuten los resultados en relación a varias teorias sobre el cambio en comportamiento, formuladas por psicólogos sociales, con la idea de diseñar métodos más efectivos de educación en salud pública.

RÉSUMÉ

Les conclusions présentées dans cet article sont tirées d'une étude de la manière dont le grand public conçoit la lèpre, par rapport à l'idée que s'en font les malades eux-mêmes. Ces conclusions ont été basées sur une large série de questions posées à 150 malades de la lèpre et à 267 témoins. Les résultats sont mis en rapport avec diverses théories des modifications d'attitude, formulées par des psychologistes sociaux, en vue de mettre au point des moyens efficaces d'éducation sanitaire.

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