

## AN EPIDEMIOLOGICAL APPROACH TO THE STUDY OF PSYCHOSOMATIC DISORDERS

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**I**T IS probably true to say that whilst the manner in which a patient develops a psychosomatic illness is preconceived in his genetic structure, the precipitating factor is conceived in his inter-personal environmental structure. The early detection of causative factors in disease and their subsequent prevention was a subject which greatly interested Mackenzie (1919). This is not so much a public as a family health problem.

When dealing with patients with mild psychoneurotic or psychosomatic symptoms it is usual to treat these symptomatically and on their superficial merits. However, a severe or chronically relapsing case requires more detailed attention. The time and attention necessary in the first and mild type can be compared with that given to a trivial infection. With the second, however, the attention necessary to reach a satisfactory diagnosis may be compared with that given to a severe or relapsing infection which is not responding readily to treatment.

In this article I would like to put forward the point of view that the investigation of both types of case, infective and psychosomatic, are comparable in that they both involve similar principles of preventive medicine; they are thus both problems of epidemiology.

In the infectious case, swabs may be taken to detect carriers, sources of infection such as defective drains may be eliminated, and patients may be isolated. In a comparable way detective work may be necessary amongst the contacts of a case of psychosomatic disease, and occasionally it may be necessary to isolate the patient from his surroundings if the condition is acute.

**Case 1.** A girl aged eight had suffered from asthma for the last four years. This was spasmodic in type and caused the child great distress for about two days before gradually clearing up. Frequently a cold would start the attack, but as in all cases of asthma there were both infective and psychosomatic components.

She also suffered from periodic attacks of eczema mainly in the flexural regions.

*Epidemiological investigation*

She was an only child and lived with her parents in a comfortable home. The only frequent visitor to the house was her maternal grandmother.

*Contact 1.* Mother aged 30. Quiet and submissive type. Devoted to her child. Only after a long acquaintance did she divulge that all was not well between herself and her husband; that he was cold towards her and left her alone in the evenings. He was prone to long angry silences. She wept when she told me this.

*Contact 2.* Husband aged 31. Appears to be a well-balanced, reasonable man, but not very forthcoming. Admitted that he and his wife did have quarrels, but rather than make a scene, he preferred to go out or keep silent.

*Contact 3.* Grandmother aged 65. Kindly but querulous, and not very capable. Apparently unaware of any husband and wife differences. Inclined to complain a good deal. Child does not enjoy visiting her because she says her grandmother's dog frightens her.

*Comment.* There is clearly here a disorder of communication between husband and wife on a fairly superficial level, long drawn out, and mainly subconversational. The one person in the house who was in a susceptible condition to "catch the infection" was the patient (The soil was prepared for the seed.) This explanation was offered to the parents and since then there has been an improvement in the child's health. Although not free of asthma, the attacks are milder and shorter. The parents are also happier. The third contact was not involved as she appeared to be so wrapped up in her own affairs as to make little impact on the others. The grandmother's dog was probably a red herring.

*Case 2.* A baby, two months old, presented as a "feeding problem". Milk was vomited after feeds and the baby cried incessantly. Previously, he had been well contented and had happily contemplated his mother until this episode. There were no signs of infection, wrong feeding, or any disease, and this was thought to be an emotional disturbance. Reassurance, increasing the feeds, and mild sedation were without effect and it was soon clear that the mother was emotionally reaching the end of her tether. The baby was therefore admitted urgently to the cottage hospital where he immediately settled down, took his feeds, stopped crying, and behaved as a model baby should. On returning to his mother after a few days, all went smoothly.

*Epidemiological investigation*

*Contact 1.* Mother, aged 23, well meaning but of rather limited resourcefulness, became easily upset and angry if things were not going well. Tension gradually built up between mother and baby until the mother could go on no longer, and the baby became very angry indeed. No mention of husband was made.

*Contact 2.* Husband, aged 27. Apparently imperturbable. Was E.R.A. in the Navy, shore based, but stated that he was fed up with it and wanted to get out. Had recently told his wife about this and it had upset her.

*Comment.* This was an acute emotional crisis in the home and could only be resolved quickly by the isolation of the patient. It is

probable but not certain that the disordered communication between baby and mother was initiated by the husband stating that he wanted to leave the navy. This produced a disorganization in the mother which immediately affected the child. Instead of restoring the *status quo*, the mother was unable to retrieve the situation because she again reacted in a disorganized way to the child's screaming. It is remarkable that an interruption in the thread between mother and child could produce such devastating results. Whilst the baby was away, the mother was given breathing space which enabled her to relate to her husband satisfactorily and resolve her problems. The diagnosis here appeared to be a disorder of communication at a subconversational level.

### Discussion

If the illness under discussion can be produced in a subject (who is in a susceptible condition), by, as it were, transmission from another (who is immune), then the question may be asked: Is it possible to apply epidemiological principles to their study? Probably one way to attempt to answer this is to apply that traditional epidemiological triad, the soil, the seed and the environment, and observe if this yields any fruitful results.

*The soil.* This is the genetic make-up of the patient and is of first importance in determining his receptivity to the sting of the environmental disorder. The receptivity is followed by a response which is more or less disorganized. This response is mainly genetically, but also partly socially, determined. Thus the mother in case 2 was receptive to her husband's threats of leaving the navy (because she was made that way), but her response was disorganized, partly for this reason, but also because of social reasons (not making a scene, possibly some fear of her husband, and so on). It is of interest that an experimental animal under a noxious stimulus will show receptivity, but an organized or complete response; because there is no social inhibiting element.

*The seed (or contact).* This is an unknown quality, and at present is a phenomenon which is observable, but not measurable. Canetti (1962) calls this the "sting of power or authority". It could perhaps be considered as a tension gradient between the patient and the contact. As it is this which comprises the disorder of communication, it is clearly more important than the external setting, which is the third factor.

*The environment.* This is the sociological setting, the financial

stringency, or the inadequate housing. It is the element stressed in all sociological work, but it may not be the most important, and may lead the epidemiological detective on false trails. However, our investigations must start somewhere, and this is the obvious starting point.

We have, therefore, three variables, all interacting, to produce or stave off disease, and all worth the attention of family doctors. If the genetic factor is paramount it may require only a slight environmental disorder to produce disease. On the other hand, a disorder of communication which is unremitting over a long period may well produce an undesirable effect where there is minimal genetic weakness.

The epidemiological approach can only be of practical help in a severe, acute, or protracted disease, because it may be time-consuming, and it is pointless to use up valuable time on a disorder which is trivial and self-limiting. If there is strong evidence of a multifactorial genetic weakness as seen in the other siblings, then the patient can be considered as a natural 'victim', and it is logical to concentrate on improving the patient's defences by local treatment. If not, however, the physician's aim should be environmentally orientated towards the patient's contacts at home, work, or play. A useful guide here is whether the patient is better or worse on holiday. Epidemiologically, the most effective treatment in acute cases is isolation, and this may sometimes be necessary as in case 2.

The fundamentals of knowledge about human behaviour can be acquired fairly readily (Apley and McKeith, 1962; Balint, 1957). However, beyond this lies a wilderness, unmarked and exciting, into which there are but few paths, poorly marked. The psychiatrist has given us a deal of information about Man in relation to his unconscious; the next and logical advance is the study of Man in relation to his personal environment.

Much useful information is not forthcoming because there is a strong emotional bias which raises a smoke screen of resistance to the acceptance of facts which may appear uncomfortable, or even disloyal, in the mind of the patient. By nullifying the sense of guilt or blame, an epidemiological approach would go some way towards dispelling these archaic attitudes.

### Summary

The method of investigation of an acute or protracted psychoso-

matic disease is compared to that of an acute or protracted infection.

Two examples are given to demonstrate how the method may be applied.

## REFERENCES

- Apley, J., and McKeith, R. (1962). *The Child and His Symptoms*. Oxford.  
Balint, M. (1957). *The Doctor, His Patient and The Illness*. London.  
Canetti, E. (1962). *Crowds and Power*. London.  
Mackenzie, J. (1919). *The Future of Medicine*. Oxford.
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