statements, we would refer them to Dr Eastwood's own " In my opinion, psychosomatic ideas have presented a considerable impediment to the serious study of a number of important diseases." Is the truth not simply that Dr Eastwood values only one part of clinical medicine, that concerned with physical measurement?

It has been our intention in this detailed reply to Dr Eastwood's criticism to be explanatory rather than defensive. We are quite happy, however, to move on to the offensive.

It seems to us that what Dr Eastwood's letter has made manifest is not our own ' scientific slackness ' but his own uncritical prejudices about clinical medicine. We recognise them, we understand them, but we cannot share them. It was our intention in writing this book, and it remains our intention, that they will not be shared by the future general practitioner.

REFERENCES

Eastwood, N. B. (1974). *Journal of the Royal College of General Practitioners*, 24, 796-7.

Shepherd, M. *et al.* (1966). *Psychiatric Illness in General Practice*, London: O.U.P.

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VASECTOMY FOLLOW-UP

Sir,

From his follow-up study of 175 vasectomised men, Dr Drury reports an improvement in the physical and emotional relationships of over 50 per cent. I doubt whether he is justified in drawing these conclusions from his data.

There is little argument that vasectomy is an efficient means of producing irreversible sterility with no physical harm to the patient. Most reservations concerning the operation lie in the psychological sphere and it is here that research needs to be done. It is now widely agreed amongst psychiatrists (whether for or against vasectomy) that the removal of a man's fertility by a mutilating operation causes a profound and serious disturbance to a man's body-image, evoking fears of castration, impotence, and demasculinisation. Psychological readjustment to his damaged self-image is made by seeking reassurance that the feared loss of sexuality and manliness have not occurred.

The vasectomised man is very likely to be driven by anxiety to dwell on sexual matters and this may be erroneously interpreted as ' increased libido ' by the unwary observer. He is also likely to try to reassure himself that his sexual abilities have not been destroyed, leading to an increase in coital frequency. Ziegler *et al.* (1969) found that men reporting sexual problems after vasectomy (e.g. impotence and premature ejaculation) were also those men reporting the highest increase in coital frequency. From this he concluded that increased coital frequency is a *neurotic*, rather than a healthy, response to vasectomy.

Assuming the psychiatrists are correct, it would seem to be much too shallow an approach to ask men " to rate the effect that vasectomy had upon their feelings of masculinity " or to ask a couple to complete a postal questionnaire (probably together) asking whether their physical and emotional relationships were " better " " worse " or the " same ". How, for instance, should the impotent man with increased coital frequency reply? David and Helen Wolfers (1974) in their book *Vasectomy and vasectomania* strongly criticise the Simon Population Trusts 1969 survey of 1,000 cases for using just this technique and say " To ask people to state whether their sexual lives or marital harmony are better, worse or the same, is about as useful as the measurement of electric current with a divining rod."

Fortunately most vasectomised men easily make the required psychological readjustment; a few, disastrously, do not and it is of the utmost importance that this latter group is identified before operation.

More research is certainly needed to help us understand the consequences of vasectomy. In my view meaningful results will only be obtained by independent observers (not the operators) using in-depth psychiatric interview techniques.

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REFERENCES

Drury, M. (1974). *Journal of the Royal College of General Practitioners*, **24**, 812–816.

Wolfers, D. & Wolfers H. (1974). *Vasectomy and vasectomania.* London: Mayflower Books Ltd.

Ziegler, F. S., Rodgers, D. A. & Prentice, R. J. (1969). *Archives of General Psychiatry*, **21**, 50.

ASSESSMENT OF APPOINTMENT SYSTEMS

Sir,

Both the Joint Working Party on the General Medical Services (1974) and the House of Commons Expenditure Committee (1974) have recommended that general practitioners should periodically review their appointment systems so as to detect and correct problems. For this reason alone, it was pleasing to read Dr Lloyd's report of a consumer survey of his appointment system, published in your September issue.

Unfortunately this paper demonstrates a number of methodological shortcomings. It is important

that these should be brought to the attention of any practitioner who is thinking of following Dr Lloyd's example.

First, although the author's choice of questions would not meet with universal approval, it is instructive to take his choice as read and examine the precise form of both questions and responses:

(1) The patient cannot tell whether the first question refers to the present appointment or to his experience over a period of time. It is generally recognised that attitudinal questions produce more objective responses if they are focused on a particular object or event; in this case it would have been better to have asked the patient how important to him the *present appointment* was.

(2) The response categories for the first question do not form a consistent set; the first two refer to importance in a temporal sense, the final one does not.

(3) The second question makes no attempt to distinguish between those patients who were successful in obtaining the doctor of their choice and therefore did not answer part (b), and those who failed to respond to part (b) for other reasons.

(4) The response categories for the second question appear asymmetrical; 'fairly easy' and 'fairly difficult' seem preferable to 'quite easy' and 'a bit difficult'.

Secondly, there is no discussion of non-response. Very rough calculation suggests that the 1,489 responses represent about 30 per cent of all appointments during the survey period. Ideally there should have been some attempt to follow up a sample of non-responders. In the absence of such a follow up, the author should at least have mentioned the possible effect of a low response rate on his findings.

Thirdly, the author makes inappropriate use of the statistical test known as the chi-squared test to analyse both his tables. As a result he draws conclusions which come fairly close to contradicting each other. Since 792 of the 876 observations in the right-hand column of table 1 also appear in the left-hand of that table, the use of the chi-squared test, which can only be applied to independent observations, is invalid. Indeed, since these columns are nothing more than the margins of table 2 (augmented by a number of non-responders), the inclusion of table 1 adds very little to the paper.

While it is not actually incorrect to apply the standard chi-squared test to table 2 to ascertain whether the responses to questions (2a) and (2b) are independent, it is certainly fallacious to deduce from a large chi-squared value that patients find it *as easy* to obtain a doctor of their choice as they do any other doctor. For one observes that 256 patients (i.e. 89+50+13+75+15+14) found 'a particular doctor' more difficult, whereas only 139 (viz 60+7+43+4+3+22) found 'a different doctor' more difficult. One should then apply McNemar's test (a specialised version of the chi-squared test) to these figures to deduce that it is *more difficult* to see a specific doctor.

While practitioners should certainly be encouraged to review their appointments systems, it would be a pity if they were to be given the impression that enthusiasm is a substitute for careful planning and sound statistical technique.

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REFERENCES

Expenditure Committee of the House of Commons (1974). Fourth Report. *Accident and Emergency Services*. London: H.M.S.O.

Joint Working Party (1974). *General Medical Services*. London: H.M.S.O.

Lloyd, G. (1974). *Journal of the Royal College of General Practitioners*, **24**, 666–8.

CONFUSION OF COLOUR

Sir,

I refer to your Editorial (August *Journal*) and wish to make the following observations:

Ishihara colour test cards are not always reliable—if all cards are correctly read there is no deficiency of colour perception. If errors are made suggesting a deficiency the test is unreliable. If the test shows colour perception deficiency the patient should then be tested with either an Edridge-green lantern or a Martin's lantern, and a percentage will be found to have normal colour perception, therefore all medical examiners who carry out colour perception examinations should be in possession of a lantern, or be able to arrange for such a test to be carried out.

It would be unfortunate if a person should be prevented from taking up his chosen career due to too much emphasis being placed on the results of the Ishihara test.

The Ishihara test should be carried out as follows:

There should be good diffuse daylight or a diffuse artificial light—not in sunlight or in a room with strongly coloured walls. Spectacles should be worn if necessary, and the cards placed three feet away from the examinee, the book placed flat on the table with the examinee standing, five seconds to be allowed for each plate. The numerals must not be traced with the finger.

I am still of opinion that these tests should be postponed until the child is at least ten years of age.

As the Ishihara plates are affected by light it is