Iatrogenic Health

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My text is taken, not from the Bible, but from a book which ranks second or third in the hierarchy of bedside and desert-island books. The passage is as follows:

"... 'Wot's the matter?' says the doctor. 'Wery ill,' says the patient. 'Wot have you been a eatin' on?' says the doctor. 'Roast weal,' says the patient. 'Wot's the last thing you dewoured?' says the doctor. 'Crumpets,' says the patient. 'That's it!' says the doctor. 'I'll send you a box of pills directly, and don't you never take no more of 'em,' he says. 'No more o' wot?' says the patient—'Pills?' 'No; crumpets,' says the doctor. 'Wy?' says the patient, starting up in bed; 'I've eat four crumpets, ev'ry night for fifteen year, on principle.' 'Well, then, you'd better leave 'em off, on principle,' says the doctor. 'Crumpets is wholesome, sir,' says the patient. 'Crumpets is *not* wholesome, sir,' says the doctor, wery fierce. 'But they're so cheap,' says the patient, comin' down a little, 'and so wery fillin' at the price.' 'They'd be dear to you, at any price; dear if you was paid to eat 'em,' says the doctor. 'Four crumpets a night,' he says, 'vill do your business in six months!' The patient looks him full in the face, and turns it over in his mind for a long time, and at last he says, 'Are you sure o' that 'ere sir?' 'I'll stake my professional reputation on it,' says the doctor. 'How many crumpets, at a sittin', do you think 'ud kill me off at once?' says the patient. 'I don't know,' says the doctor. 'Do you think half a crown's wurth 'ud do it?' says the patient. 'I think it might,' says the doctor. 'Three shillins' wurth 'ud be sure to do it, I s'pose?' says the patient; 'Certainly,' says the doctor. 'Wery good,' says the patient; 'good night.' Next mornin' he gets up, has a fire lit, orders in three shillin's' wurth o' crumpets, toasts 'em all, eats 'em all, and blows his brains out.

"'What did he do that for?' inquired Mr. Pickwick abruptly; for he was considerably startled by this tragical termination of the narrative.

"'Wot did he do it for, sir?' reiterated Sam. 'Wy, in support of his great principle that crumpets wos wholesome, and to show that he wouldn't be put out of his way for nobody!'"

I have a profound admiration for Sam Weller's hero. I wish there were more like him. No doubt he went too far. I should prefer him to have kept his pistol in reserve to be used as a last resort, to end his own sufferings if they became too severe. Alternatively, if the crumpets were assimilated without untoward effect, he could have waved it at the doctor, accusing him of part-murder and scaring him sufficiently to make him promise never to commit part-murder again.

Perhaps the expression "part-murder" requires definition. When we deprive someone of his life we commit murder. We commit part-murder whenever we deprive anyone—unnecessarily—of any part of his life and the fullness thereof. There is a magnificent sentence in the New Testament—"I am come that they might have life and that they might have it more

abundantly." In medicine our attitude seems to be: "We are come that they might have a *longer* life. Yes. But we'll kick half the fun out of it. . . . We'll stop them enjoying their crumpets." Are we doctors not occasionally guilty of part-murder, unnecessarily depriving our fellow-men of the fullness of life? This temptation, as I propose to show, has some relevance during convalescence and rehabilitation. But perhaps we ought first to distinguish between the two. All major illnesses, accidents, and surgical operations have to be followed by a period of recovery during which the damaged tissues and organs can repair themselves before resuming the stresses of normal functioning: a period of *convalescence*. *Rehabilitation* is the process whereby the patient, rendered flabby, atrophic, and perhaps demoralized by being kept idle and undernourished during the acute phase of his trouble, can be led back to his normal way of living; or if that is impossible, be helped to learn how to make the best use of what he has got left. These two processes, one passive and the other active, overlap and proceed simultaneously, but I shall begin by considering each separately.

Value of Convalescence

I ask in all seriousness—is convalescence really necessary? Should we not be revising our ideas about it?

It is certainly nothing like so necessary as it was forty years ago when I was a medical student. In those days the average hospital patient was undernourished. As late as 1934 the 13-year-olds of the lower income groups, according to Sir John Boyd Orr, were 5½ inches shorter and correspondingly lighter than the children of the same age group among the professional classes. The average daily diet of the hospital classes yielded less than two-thirds of the calories enjoyed by the more affluent, and about 20% less than the standard requirement; and it was sadly deficient in first-class proteins, vitamins, and minerals. Thus nurtured, these folk were not really healthy to start with: they were illness-prone, and when stricken they were handicapped. When such a starveling developed lobar pneumonia he became increasingly ill and toxic for 6 to 8 days until the "crisis," so ill that 25% died of toxic myocarditis before the crisis was ever reached. Those who passed the crisis were left weak, emaciated, and anaemic. It might be some days before they could even wash their hands and faces in bed without exhaustion. There were no blood transfusions; the patient had to restore his own haemoglobin with the help of mist. ferri et ammon. cit., a slow business particularly for those beyond middle age. He had also to recover loss of body weight he could ill afford, incurred during the week he had been existing on sips of milk and brandy.

Patients who had abdominal operations (which, incidentally, were frequently followed by bronchopneumonia, for which the anaesthetist was blamed) had to make good the blood lost at operation, and their low diet would force them to live on their own muscle proteins and what little fat they possessed. Worst of all was the plight of those cases which went septic. There

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were no antibiotics, and the patient had to develop his own resistance and his own immunity, but meanwhile he endured a long toxic phase with the danger of irreversible lardaceous disease of his liver, kidneys, spleen, and heart muscle.

Such very sick patients had to have full nursing attention for many days after their illness or operation. In 1922 the average length of stay in the Norfolk and Norwich Hospital was 26 days: to-day it is less than 12 days. Eventually when they could help themselves a bit, potter round the ward in their dressing-gowns, and perhaps lend a hand with making their own beds, they were sent to a convalescent home. There they would fare better than in hospital because they were allowed to wear their clothes, move about more freely, and, if the day were very fine, breathe some fresh air. They also did better than they would have done at home, for they needed to lie fallow: early to bed and no calls on them apart from a little bedmaking and tidying up. They were probably given a more generous and a better-balanced diet than they could have afforded at home. They regained some of their lost body weight, their haemoglobin content improved, and by the end of the statutory fortnight they were certainly not the wrecks they had been; but no attempt had been made to rehabilitate them, and they were rarely in proper condition to get back to the work-bench or the pick and shovel. Nevertheless, back they had to go, for sickness benefit was starvation wages for a family, and few employers made good the difference between the benefit and the weekly pay-pocket.

How different things are to-day! Almost all of us are able to buy, if we choose, the optimum diet; that is, the diet (again I quote Sir John Boyd Orr) sufficient to maintain good health, increase of which in any particular makes no further physiological improvement. During the past forty years the consumption of milk has gone up 50% per head of population, the consumption of eggs 100%. Nowadays people have every chance of being physically fit before they take ill. Far from being undernourished they may even have reserves.

The patient does not have to fight the same battles single-handed. Anaemia is corrected before, during, and after operation. Sepsis is extinguished before toxæmia has a chance to develop. Secondary haemorrhage, once the bugbear of all house-surgeons, is now practically unheard of. As far as the body is concerned—and I am deliberately postponing discussion of the mind and spirit—little more remains than the healing of wounds, traumata, and fractures in surgical and accident cases, the resolution of consolidation in lung cases and the development of auxiliary circulation in cases of cardiac infarction.

Healing of Wounds

My impression is that wounds heal more quickly than they used to. It was no unusual occurrence for an abdominal wound in an elderly debilitated person to slide open when the stitches were removed on the sixth or seventh day. It was not frank sepsis. There was no gush of pus, merely two thin moist indolent lips gaping at you. It may have been caused by vitamin or mineral deficiency.

How long do clean surgical wounds take to heal? The patient's age obviously has some influence, as has his general state of health. I believe a clean skin wound heals completely in ten days, after which wild horses could not drag it apart. What about severed muscles? Judging by their condition at second-stage thoracoplasties when one is privileged to excavate at the exact site of the previous operation, I should say that muscles and fascia are as firmly cobbled as an Army boot in two or at most three weeks.

My veterinary colleagues, with whom I have been corresponding, claim a much shorter period for the healing of animal flesh. A typical history, one of many, is that of a cow which had a successful caesarean section but unfortunately strangled herself four days later. At the necropsy "the uterine incision was

almost impossible to detect—a slight line on the surface was all the evidence. The belly muscles were very firmly joined—I removed the sutures and could not separate the edges; and the same applied to the skin." Again I quote: "Normally skin stitches are removed on the seventh day and it is fairly routine for the animal to rejoin the herd then; and life in the herd can be pretty energetic and rumbustious."

Now it would never do for me to compare gynaecological patients with cows. True, they have animal flesh, but it is altogether finer, vastly superior in every way except perhaps edibility; but incontrovertibly they also have a mind and a spirit, both of which can be upset. "The power of mind over matter" is a dubious cliché we have been hearing all our lives. Should we not rather pay heed to the power of Mind over Spirit? It is the Spirit that makes us tick. When I hear that "Aunt Emily had her womb taken out and it was twelve months before she got over it," I am confident that what her body suffered under anaesthesia in the theatre had nothing to do with it. The long-acting trauma occurred during consciousness, and affords a good example of what I have called "part-murder." A black spell has been put upon her by someone or something. It may have been someone in the hospital, or perhaps a relative. It may have been a family tradition or a bit of folk-lore afloat at her end of the village. She wouldn't have thought it up all by herself, even though it might fulfil her deep need for a bit of invalidism.

Rehabilitation

Let us turn to rehabilitation. Rehabilitation is obviously necessary when a patient has lost or become paralysed in a limb. He has to be helped to learn and practise new skills to circumvent his handicap. This is what is popularly known as rehabilitation, and it is essential, often spectacular, and photogenic enough to capture public sympathy, but it is only a small segment of rehabilitation work. This should consist of restoring patients to *confident* health as good as, if not better than, they enjoyed before their medical or surgical episode, or, where this is impossible because of some resultant permanent disability, in discovering the extent of that limitation and in living as rich a life as possible within it.

Anxiety

Such is our work at Mundesley Hospital, and at the risk of arguing myself out of a job I maintain that it should not be necessary, for 90% of it seems to stem from imposed and untreated *Fear*. I can best illustrate this by an example.

A middle-aged patient was admitted to his nearest hospital suffering from coronary thrombosis and received the recognized treatment—bed-rest and anticoagulation. It was impressed on him that his anticoagulant pills were of vital importance, and that he must go on taking them indefinitely if he wanted to remain alive. Arrangements were made that at a later date he should be transferred to Mundesley for convalescence, but sudden pressure on beds caused him to be pushed off home in an ambulance without warning and without his death-defying pills. His doctor was not put into the picture, and he couldn't find out from the hospital by telephone the nature or dosage of the pills. The patient spent eight days and nights of acute anxiety before admission to Mundesley, expecting to die in agonies at any moment.

This was about three years ago, in the early days of anti-coagulants, and opinions about their use were just about as sharply divided as they are now, so when he clamoured for the pills and moreover talked wildly about suing the hospital doctors, my reaction was to congratulate him for having survived eight days without them, and to suggest that we held them

in reserve. In due course we got him on his feet. First he crawled a few yards along the level, then uphill, getting a bit farther each day and a bit bolder. It was a slow business because his self-confidence was practically nil, and he still had nightmares and sudden sweating panics. In six weeks we had him walking eight hilly miles at a proper swinging pace; in eight weeks he was bicycling around the countryside. But that was not enough. He was a self-employed smallholder. All his wealth was in his land, and he had a family to keep. So he was put to digging in the gardens, crowding wheelbarrows, and lifting boxes of seedlings.

By now he was walking upright, and had regained all the weight he had lost. Then came the fine afternoon when, hot from his exertions, he asked if it would be all right if he went for a swim in the sea. Although he did not realize it, this was a crucial moment. If I refused, or betrayed the slightest hesitation, it would put him right back. None of us, doctors or staff, ever say no without careful thought; so I replied, "Certainly, why not? Carry on." But I confess I spent a terrible afternoon wondering what I was going to tell the coroner, and I have rarely felt so relieved as I was when I saw him returning swinging his towel. That bathe set the seal on his recovery, and he went straight back to work. Nowadays he doesn't go near a doctor. He eats his crumpets with a clear conscience. He comes to see me about once a year, but merely to bring me plants for my garden. Our conversation is free from all objectionable pathological matter.

That job took three months. Had the patient not been so scared it could have been completed in a third of the time. I contend that there is an enormous amount of ill-health, of wasted life, all around us simply because patients and ex-patients are not relieved of their uncertainty.

Speaking as a patient, I say it is anxiety which usually transforms us ordinary individuals into patients seeking medical opinion. We are worried about some symptoms, and what we want primarily is reassurance. We hope to be told that our trouble is not progressive, fatal, or permanently disabling, but transient and amenable to treatment.

But we don't often get what we want. The doctor's reassurance is so often vague and guarded. He'll give us the treatment but he won't make any promises. Indeed he may say, "I can find nothing wrong with you, but I'll send you to someone else who will." Ultimately we may find ourselves in a hospital ward. Here, again, little is done to alleviate our anxiety. We enter a subdued but tense atmosphere of cautious vigilance. Every possible precaution is taken to Prevent Things from Going Wrong. And quite rightly so, we must admit, but at what a price! Until the day of our discharge we usually remain deprived of our clothes and lead at most a slipshod existence in pyjamas and dressing-gown. Bed is obviously the safest place for us. While we are tucked up in bed we cannot be struck by lightning, and if we are, *nobody is to blame*. That's the important thing.

It does not end there. Indeed it cannot. When we are discharged it would be fantastic to let it be implied, "Up to this very hour and minute you have been in danger, but now you are safe"; hence the need for the parting shot, the little bonus of uneasiness to take home, the little black spell to blight our convalescence. The brakes are left on. No one who watches "Emergency Ward 10," that faithful mirror of Modern Hospital Practice, can fail to have noticed that no patient is ever discharged as cured and bidden to go on his way carefree and rejoicing, and forget all about the episode. No, at their good-byes, Sister Carol Young or the Houseman, or both, will jocularly fire off an admonitory, "Now you behave yourself when you get home." . . . "You be careful. We don't want to see you in here again," thereby insinuating rather unfairly that it was the patient's own fault that he took ill in the first place, and that if he does not take care not to enjoy himself there might easily be a relapse or recurrence.

And so it is in real hospitals. For example, few sisters of gynaecological wards (in East Anglia at any rate) can refrain from warning their departing patients, whether hysterectomy, colporrhaphy or whatever, "You must not do any lifting." But they make one golden exception to this rule: women who have had caesarean section are not told they must not lift their babies, and for some inexplicable reason they do not have to attend out-patients in a month's time.

I confess I am baffled by this business of "not lifting." When I lift, say the end of the grand piano, it seems to be the extensor muscles of my back which do the work. My abdominal muscles and the serratus anterior play a part, but a minor part, in anchoring the thorax and shoulder-girdle. Just lately I have noticed when I stoop down to tie up my shoelaces my intra-abdominal pressure rises uncomfortably, but not when I straighten up. When lifting I am far more concerned about slipping a disk than developing an inguinal hernia. Surely it is trunk-flexion which throws strain on the abdominal muscles; campanology, rope-climbing, converting tries at rugby, or wielding a sledge-hammer? Surely it is against these activities that your post-hysterectomy cases should be warned? And of course, straining at stool, and tying up one's shoes, which are rarely mentioned.

Follow-up Scheme

Before the patient leaves Mundesley his fitness is classified. Certain patients leave actually fitter and more athletic than they have been for years; these go into Category A. To qualify for this category the patient must be so completely rehabilitated that I personally would have no hesitation in letting him or her go back to full work the very next day.

I have just started a pilot study for a harmless follow-up scheme. Three months after a patient has left Mundesley the G.P. concerned is sent a simple little questionnaire about the patient's subsequent career. The answers are beginning to flow in. It turns out that my "A" patient stands a more than even chance of being down-graded to Category B or even lower, and is likely to be kept idle and *invalidated* for another two to thirteen weeks.

First, he is quite likely to have a hospital out-patient appointment in a month's time. This throws both patient and his G.P. into a state of suspense. The patient does not realize that at least a third of out-patient follow-ups are due to mechanical card-index routine, and totally unnecessary. To him it is no joking matter. There lurks at the back of his mind the fear that, in spite of all evidence to the contrary, he may still not be out of the wood, and he waits anxiously for the Big White Chief (or his Registrar) to give him the All Clear—or the unnerving, "Come along again in a month's time." His G.P. is unlikely to issue his final certificate until this appointment has been kept and he himself has had a fully absolving report from the consultant—usually a bit later. A bit of routine part-murder. Second, of course, on getting home the patient may turn a complete *volte-face* and claim to be weak and wobbly. In certain circumstances this is quite understandable. When at the outset a housewife, say, has been told that a job will take all of three months, she budgets these three months as pleasantly as possible. A fortnight or so at the convalescent place and then a few weeks' stay with a married daughter (carrying with her the invalid's privileges—breakfast in bed, rest in the afternoon, and T.V. in the evening); then home, but with an unmarried daughter to do most of the chores for her, until the three months are up. When you have made such agreeable plans, why should they be disrupted?

The third and most frequent reason for degradation from Category A is that the patient's general practitioner refuses to admit the possibility of full recovery in so short a time, voices his misgivings, and so shatters the patient's self-confidence we have laboured to establish. Part murder again.

Discussion

During the past six years that we have been doing this experimental work in convalescence and rehabilitation at the Mundesley Hospital 4,000 patients have passed through my hands. Their average age has been 54.5 years (S.E.=16) and their average length of stay has been 19 days (S.D.=9). They have been a mixed bag: fracture and orthopaedic cases, heart and chest cases, brain and C.N.S. cases, abdominal, gynaecological, asthmatic, dermatological, psychosomatic, psychotic and psychoneurotic, together with inadequate personalities, professional layabouts, malingerers, and light-fingered gentry who pinch our nail-brushes and hand-towels.

They come from more than thirty different general hospitals in East Anglia, and with rare and dazzling exceptions they all come with their brakes on; and what strikes us all—doctors, nurses, yes and even our domestic staff—is how the morale of patients varies according to the general hospital which sent them. Patients from some hospitals are as full of spirit as a May morning and eager to take their brakes off at the slightest encouragement. This is noticeably true of the smaller hospitals, and hospitals where patients are allowed to dress properly and wander freely abroad within a few days of their operation or illness; where the consultants, housemen, and ward sisters have prophesied that after two or three weeks at Mundesley they will be 100% fit. From the wards of other hospitals where the atmosphere of accredited mendacity has been more intimidating, where the medical and nursing staff have committed a bit of part-murder in advance and full health is advertised as being still a long way off ("You'll have to take things easy for a very long time. . . . No lifting"), the patient arrives, subdued and dispirited, with all his brakes jammed on tight, and our job is to take them off, or rather to coax, cajole, challenge, flatter, bully, and sometimes shame him into taking them off. And it should not be necessary.

Progressive Increase in Activity

Progress is demanded by a very simple little rule of the house—"Never do less to-day than you did yesterday; always, if possible, do more." It is not much to ask a patient to increase his previous day's exertions by, say, one-fifth, but by compound interest he is doing on his tenth day six times his original stint, and on his twentieth day thirty-eight times as much. Few achieve this uninterrupted exponential progression, and nobody is actually publicly flogged if he sometimes breaks the house rule. In course of time most patients discover their upper limit beyond which it is folly to press further. Then they leave; for the corollary to the rule is "Get on or get out." But by this time he is doing far more than he ever expected to, far more than he has done for years, and he has regained his confidence in himself. He has tested out his body and has not found it wanting.

We get some pleasant surprises. A 74-year-old man, as thin as a rake after an abdomino-perineal resection followed by pneumonia, regained a stone and a half (9.5 kg.) of body weight in six weeks, at the end of which he was taking strolls of 12 to 14 miles. No doubt about it. He was seen plodding along a lane seven miles from the hospital. But we are equally happy to call it a day if another patient, who had spent the past two years in a wheeled chair, manages to dress and undress himself, shuffle with a couple of walking-sticks a score or two of yards outdoors, and make his way to the dining-room, lounge, bathroom, under his own steam.

Morale

I say "we" deliberately, for it is all achieved by team-work. The part played by any one individual is purely contributory;

and our most powerful therapeutic implement—which really does all the work—is the morale prevailing within the hospital. The morale of our staff always seems to be sky-high. I don't know why. Perhaps as a group we are just the right size for us all to know each other, and we have worked together long enough to understand each other's funny little ways. Certainly if a newcomer to the staff fails to get into step and become one of the family, he or she fades away before very long.

Among the patients, when morale is high and everyone is pressing on confidently, working hard to get back into top gear, newcomers lose their misgivings, get carried along by it, and keep the torch burning. Once it completely rehabilitated a Peterborough lay-about who hadn't done any work for two years. (He simply wasn't watching what he was doing.) Morale cannot be measured in the kilowatts or pounds per square inch, but one can sense and assess it almost as soon as one crosses a threshold: by the way people move about, or stand round and gossip, and by the overtones of the conversational hubbub at meal-times. Because it plays such a vital therapeutic role it has to be most jealously guarded and watched. Youngsters raise the general morale; so do the really aged. The people in between—the middle-aged—seem to be more vulnerable to black spells and so to stand in much greater need of leadership. I suppose that when young, no matter how much people try to frighten us, we think, "That may happen to others, but not to me. I'm different." The really aged have weathered so many storms that they too are inviolable. Middle age is reached when one realizes that one is just the same as other people, and that almost anything is rather more than likely to happen.

As already hinted, patients from certain hospitals—indeed from certain consultants—are splendid for their contribution to our morale; of patients from other quarters, to say that they were even half-hearted would be an exaggeration. When high, morale can enchant a lay-about, if solitary; but if he has a lay-about friend with whom to consort, it cannot touch either; and three or more layabouts combining forces can draw other weaker brethren into their circle and run our batteries right down. Of asthmatics, two is about the greatest number we can carry. They will do well. They will be assimilated into the community and suspend all asthmatic activities, including the taking of polypharmaceutical pills, suppositories, and inhalations, and will behave as normal beings. When their number exceeds four, they do badly. They agglutinate into a sub-group and seem to vie with each other in having attacks at night, and they cast a gloom over all their fellow patients. With psychoneurotics it is much the same. Some do quite well and apparently derive lasting benefit from their two or three weeks' stay. It all depends whether they allow themselves to be assimilated by the rest of the community, when they are healed by their fellow patients; or whether they remain impregnable isolates, impregnable to all except other isolates.

Conclusion

Well, I seem to have been hitting all round the wicket. Instead of confining myself to convalescence and rehabilitation I have lightly sketched in the mandatory relationships between doctor-patient (*No crumpets for you!*), consultant-patient (*Come back again to me*), and even between patient and patient (*morale fertilization*). That all these reactions affect the patient and influence the course of his recovery for good or ill we all know. And we must be fully aware of these reactions, however uncomfortable such awareness may make us, and not pretend that they don't exist. By bringing them out into the daylight, and by matching them with good humour, we can surely rob them of their power to harm.

A pox upon iatrogenic illness, I say! What about a little iatrogenic health, for a change?