Standards for Morale

Cause and Effect in Hospitals

by R W Revans

Published for the Nuffield Provincial Hospitals Trust
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Contents

FOREWORD

THESE STUDIES of life in hospital occupied nearly twenty persons from time to time over the course of five years. Their detailed organisation in the field was due to James A. Fraser, lately lecturer in psychology in the University of Manchester; his help and his help alone made much of the survey possible. A lifetime of practical experience gave him an insight into the behaviour of ordinary people and an ease in reassuring them without which the work would have got little beyond the arid analysis of hospital statistics; he has continued to help and advise in his retirement. Much of the collection of statistics was carried out, with an astonishing blend of tact, audacity and success by William Staton, lately Director of Education to the Borough of Leyton; he was helped by Kenneth Wallis, now lecturer at Regent Street Polytechnic; Dr. Vera Bruce Chambers conducted the survey of nursing cadet schemes and found herself on the General Nursing Council at the end of it; John Pantall, now tutor to students of hospital administration under Professor T. E. Chester, spent four years working with James Fraser on field work that ranged from attitude surveys to the direction of a team of analysts sampling ward activities. Dr. Mahendra Srivastava from Cawnpore first made order of hospital statistics by his diligent searches into the records of thousands of nurses; Dr. Noorali Nanji from Nairobi reduced the opinions of hundreds of ward sisters to a form that the Manchester computer could handle. Miss Hilary Hutty lent a hand at everything, living in nurses' homes, interviewing matrons, writing up gigantic attitude surveys, typing this report. Other members of staff who became involved included John Beresford, lately of the Operational Research group of the National Coal Board, and Jack Butterworth, head of the College work study section. The project was directed and written up by Reginald W. Revans, who alone must be responsible for its obscurities and misconceptions.

ACKNOWLEDGEMENTS

A GENEROUS GRANT from the Nuffield Provincial Hospitals Trust enabled us to carry out the study described in this book.

It is impossible to make adequate reference to all who helped to get the work started, continued and finished, but mention must be made of John Gibbon, secretary of the Manchester Regional Hospital Board, who not only arranged the first tea-party of matrons, to arouse interest in (or at least disarm criticism about) a suggestion that comparative nurse wastage might be worth study, but who was thereafter able to remain on friendly terms with the department; John Dafforne, secretary of Ancoats Hospital, who being less than fifteen minutes' walk from the College, put up with a volume of questions remarkable even from a group of academics; Paton Travis, secretary of Bolton Hospital Management Committee, who displayed an inexhaustible patience while instructing the members of the team, one after another, in the powers and duties of group administrators; a score of matrons, most long suffering and maligned of women; and, latterly, a trio from Birmingham, Christie Gordon and Stephen Adams of the Regional Board, and Donald Norton, Secretary of Dudley Road Hospital Management Committee, under whose tutelage the project, from being merely a study of the treatment and responses of hospital nurses, might one day become a means of understanding better the relations between all levels of the hospital service, from Regional Board to patient and relative. I also acknowledge the singular stimulus given by Professor Sir Robert Platt; it is, I suppose, rare for physicists to be invited to address Medical Schools on problems of morale, but in giving me that unusual opportunity Sir Robert turned a range of miscellaneous and unconnected ideas into the central thesis of this essay; that patient recovery and nurse stability are alike aspects of their capacity to learn from what the hospital has to offer. I think the thesis goes even further than this: the stability of all institutions—not hospitals alone—that are based on authority, and that must work through situations of command and obedience, depends upon their capacity to learn. Control

systems to keep informed those who are in charge are not enough; the stoker in the engine room no less than the captain on the bridge needs to understand what is going on. We must give more thought than we have in the past to the problems thrown up by change and emergency at all levels and this demands that many of those in authority shall have a new perception of their relations, both formal and informal, to their subordinates; this is a personal and individual no less than a group or social need. It is in conversation with men like Sir Robert that one recognises how readily one may overlook such obvious truths.

Finally, in this scientific age, we must admit the fundamental role of the catalyst: that which makes possible the reaction without itself being changed by it. In Gordon McLachlan the Nuffield Provincial Hospitals Trust has a Secretary with that blend of insight and endurance needed to ensure that some kind of programme is eventually fulfilled. His advice, support and firmness were part of the overall design.

R. W. Revans,
College of Science and Technology,
Manchester.

November 1963.

INTRODUCTION

The Adjustment to Change

THIS ESSAY describes the work and conclusions of a small group at the Manchester College of Science and Technology (none of whom was medically qualified); we spent about four years in a number of hospitals, mainly in the North of England, observing, discussing and analysing a variety of human problems, beginning with the adjustment of the student nurse to her professional task. Our group was drawn from the Department of Industrial Administration; its members could claim to previous research in the field of organisation and some had had responsible experience of industrial management. The Department is generally attempting to bring the methods of operational research and of work study to the analysis of administration; as far as possible our team has used techniques of direct observation and of statistical analysis in these particular studies of hospital problems, and the essay is based exclusively upon our own research material. (This is not to suggest that there is any lack of other studies, nor that among these there is none more worthwhile than this.)

Others of the Department's hospital studies find no place in this report, although the Department has had hospital and nursing staff through its work study courses and has eventually been engaged with them upon problems of hospital transport systems, hospital committee structures, hospital stores, hospital costing systems, hospital laundries, and the organisation of a hospital matron's office. It is as well to mention these practical assignments, since there is a tendency to regard university research workers in the field of social science as interested only in remote abstractions, and to judge their findings of little account in the world of unsympathetic reality. That those who made this study and wrote this report are lay amateurs makes it more necessary to stress their respect for observation; it may also help to excuse the accent in this report on statistical material. Such evidence does not, of course, impress everybody and we do not expect it to do so; we may, however, make some

impact by emphasising the first-handedness of much of our observation. When, for the first time, one's enquiries on the floor of the hospital bring one to share baked beans on toast at two o'clock on a Sunday morning with the night staff, the conversation is not likely to be impetuous, and it may even be guarded; on the third or fourth occasion, however, one begins to make progress. As a method of social investigation the free interview in these conditions has something to commend it.

This report is mainly about student nurses, although it makes reference also to patients. It has little to say about the methods and technicalities of nursing education, which is a vast subject and no member of the team was qualified to contribute much to its literature. We have, however, reached this conclusion: whereas it may be sufficient, in order to teach French to Tommy, to understand Tommy as well as French, it is imperative that, to teach nursing to Shirley, the ward sister must understand not only both nursing and Shirley; she must also understand herself and her relations with others in the hospital, particularly with the medical and senior nursing staff. In our view, the problems of hospital education have little to do with clinical techniques nor with the formalities and etiquettes in which they are enshrouded; they have, on the other hand, everything to do with the personal relations that spring up between the teachers and the taught. And these in turn are strongly influenced, in our view, by the relation of the teacher to her own nursing superiors and to the doctors under whom she works, and above all, by the extent to which she perceives the hospital as a whole attentive to her own needs and to their satisfaction.

These may be old sentiments; they may have been uttered by voices louder and more commanding than ours; they may even have formed the basis of training policy in some hospitals. Every important nursing conference has much to say upon the subject of human relations and upon the need to bring into hospital training a more humane and sympathetic approach to the student nurse; in our view, any lack of sympathy occasionally displayed by those in authority does not so much derive from defects in their personalities, as from anxiety based on lack of understanding, upon imperfect information, or even upon the misconception of their professional roles. These in turn, derive from inadequate communication, which is both cause and product of unfavourable attitudes. Changes in these cannot be secured merely by speeches from platforms nor by the reported conclusions of research workers. Perhaps the development in the long history of nursing most needed during the next decade is the recognition throughout the profes-

sion that techniques—even techniques of communication, such as joint consultation, ward conferences or rapid reading—are of little avail when the real obstructions remain deeply in human attitude and human motive. In a setting as emotional as the ward it will perhaps always remain as necessary as it is convenient to rely upon the standard formula, the agreed procedure, the impersonal and established method. But the integration of the student nurse into the ward team is not merely an exhibition of formalised technique, of ready-made method and of teachable fact; it is no less concerned with the alleviation of her fears and other misgivings, however unreasonable these may seem to those who have been taught by experience consciously to disregard their own. Emotional support plays a part no less than clinical instruction, and such support is of use only if it is offered when it is felt by the student to be needed. It is interesting to observe in some hospitals, where relations are free and formal, that the amount of support and consultation may even appear excessive; a nurse thoroughly at home in her work will nevertheless eagerly discuss her patients with other nurses, and invite their comments upon the way in which she is treating them. Given an atmosphere in which the staff are not discouraged from approaching each other when they feel so inclined, they will go to great lengths to make sure that they are getting the best advice, or, alternatively, most widely distributing the burden of decision, should there be uncertainty about the best course of action to pursue. In a climate of complete relaxation, one may even observe the senior voluntarily consulting the junior about actions that are unequivocally the province of the senior to decide upon; such is the deep need for those who carry the responsibility for human life to feel that they are supported by those around them. It is no wonder that the novices find their lives intolerable when, in less permissive conditions, they are denied these fortifying contacts. To those who dismiss the hesitations of the beginner as congenital inadequacies of character that must disqualify her from ever becoming a satisfactory nurse, we may encourage self-examination by quoting the medical authority of St. Luke: "And when He was demanded of the Pharisees, when the Kingdom of God should come, He answered them and said 'The Kingdom of God cometh not with observation; neither shall they say, Lo here! or, lo there! for behold, the Kingdom of God is within you' " (Luke xvii. 20, 21).

In the incident-ridden life of the ward, the most obvious truths may be the most readily forgotten. A professional ethic assuming that neither doctor nor nurse shall become emotionally involved in the

patients invariably makes it difficult, and not seldom impossible, for those in authority in the hospital to sense the impression that they make upon those beginners not yet cauterised in the flames of clinical experience. In a profession where 40% of ward sisters (see Chapter 8) feel that their own doctors, by rejecting the sisters' suggestions, also depreciate their hard-earned professional experience, what chance have the first-year nurses of catching the sympathetic attention of their ward superiors? Or, by the same token, what can be the expectations of the patient? If the attitude of the doctor is such as to undervalue the experience of the ward-sister and thereby to discourage the interest of the student nurse, what vital information about the patient may the doctor prevent himself from gaining? Might not this discouragement gratuitously add to the uncertainties of the bedside situation, and so both magnify the anxieties of the student and retard the recovery of the patient? Might it not be that the first need is to remove the obstructions unknowingly introduced by the attitude of the doctor? If we may quote again from St. Luke: "And He said unto them, 'Ye will surely say unto me this proverb, Physician, heal thyself; whatsoever we have done in Capernaum, do also here in thy country' " (Luke iv, 23). For this reason, only those who serve in senior situations at the hospital can help it to change, to adapt and to co-operate; if we have learned one thing, it is to seek at least one source of friction in those, whether consultant, matron or administrator, who too readily blame others for the difficulties with which the hospital seems encumbered. The administration is, or should be, that organ of the hospital enabling it to adjust to its environment and this adjustment must embrace the continual solving of the hospital's internal problems; before any person sets out to list the shortcomings of another, he will do well to ask to what extent these are the fruits of a frustration engendered by the critic's own failure to help the person he condemns. Above all, the troubles that accumulate at the lower levels of the hospital and that torment the young nurse during her adjustment to life upon the ward can never be removed by externally imposed changes in syllabus, nor by the temptations of generous pay, nor by other administrative action. Cultural patterns, traditional beliefs, and even personal canons of conduct: all are involved, and all may need amendment. The need for such changes seems, in some hospitals, no less imperative among the committee members than it is among some of the professional staffs themselves; a matron unsupported by her own committee cannot support her sisters. But whether or not it is possible by taking thought and action to change

the outlook of so complex a social organism as a hospital is not yet established. The evidence in this study suggests that each hospital has a personality, a character of its own, and that this is largely the expression of its internal stresses and anxieties; not seldom this character forbids the easy assimilation of the new member of the staff, whether student nurse or senior sister. Our thesis is that such a community may be made whole only by itself, by those who work in it. There is no Ministry of Health prototype, no external example, no textbook model, no Platonic ideal, on which it can be fashioned; there is no perfection to be brought about by administrative decree or departmental order alone; those who serve the hospital must perceive their own problems by their own lights and work out their own solutions in their own ways. Whether or not we can suggest any action by which any particular social organism may become more self-aware, and whether, having made these suggestions, we can engineer improvements, remains to be seen. Perhaps it is sufficient to say this: the progress of medical technology over the past century has been such that the internal problems of decision-taking and information-handling in general hospitals are doubling every decade, just as the national consumption of electricity is doubling every decade. Moreover, the demand that the patient's treatment shall succeed has also become more imperative. We are required to think of ward situations a hundred times as complicated and exacting as those faced in the reign of Victoria. The student nurse to-day must be helped to solve problems of learning and adjustment a hundred times as difficult and insistent as those confronting Mrs. Wardroper's long-forgotten pioneers; the need for sympathetic consultation between those who console and care for the patient, on the one hand, and those who diagnose and prescribe for him, on the other, is of an order unimaginable to the silk-hatted authoritarians who, from the walls of so many hospital board rooms, look down with haughty disapproval upon a generation that, if less self-satisfied, is also less self-assured. At to-day's intensity of clinical treatment the problems of hospital administration, in the widest sense of that expression, can no longer be left, as it were, to a small bureaucracy, in the manner that problems of, say, hospital purchasing may still safely be left to one or two professionals. All who work on the ward are caught up in its information and diagnostic network, even if merely to answer a telephone or to indent for a pair of cot sides, and in both of these an untutored girl can make and suffer for her mistakes. If we are to provide the security of understanding essential to those who carry the responsibility in our hospitals, or indeed in any of our social

institutions, while the pace of technology is mounting as it is and as it increasingly will, we must understand how people in different stations perceive each other's objectives and each other's problems as readily as we rely upon the help that we expect them to offer, for it is the divergence between these perceptions that endows each hospital with its own peculiar social climate. Indeed, the condition of conflict and confusion arising from the misconception of what others are supposed to know and to do has now been given a name by the anthropologists: parataxis. In our experience the cure for this distressing social malady is the co-operation of those who suffer from it, in solving or in trying to solve some problem in which they are commonly involved; those who successfully tackle one problem together also learn how to deal more readily with the second, and, perhaps, how to prevent a third from ever arising. To learn how common problems may be identified and solved may demand new methods of social investigation, and our report suggests what some of these might be.

CHAPTER 1

A COMPARATIVE STUDY OF STUDENT NURSE WASTAGE

THE FAILURE to complete their three years of training and to gain their certificate of State Registration of about half the girls in Britain who become student nurses is a considerable social problem. Many enquiries into this have been reported, but none seems to have asked whether or not the failure rate is significantly greater in some hospitals than in others, and if so, whether it may be influenced by forces under the control of those in charge of the individual hospitals. Comparisons of one hospital with another are, of course, notoriously difficult, for although hospitals are about the most universal of all social institutions they differ as much among themselves as do human individuals, and at first sight comparison of one hospital with another may seem unpromising. Yet differences between human faces, while of importance, say, to those about to get married or to judges of beauty competitions, do not deter students of surface anatomy; although the expressions on the face of any one person may vary from minute to minute, and although the features of one person differ markedly from those of another, there is an underlying uniformity in their anatomical structure upon which the neuro-surgeon can confidently rely.

It is, therefore, of interest to select some hospitals which are reasonably comparable in size, type and social setting, and to examine their statistics of student nurse wastage and of other signs of adjustment to their work. We have chosen five comparable hospitals of industrial Lancashire, and over a period of five years studied how they have managed to deal with their potential nurses. The five hospitals are all designated Class A (Acute or Mainly Acute); all are in towns strictly comparable in the light of such indices as the distribution of population by social class according to the Registrar General; all the towns are, within a few shillings, comparable by rateable value per head of population and also by size; all the hospitals are managed by the same Regional Board and,

as far as like can be compared with like, we are entitled to compare these hospitals with each other.

We are interested mainly in the reasons why girls abandon their training of their own free will, or of what would be described as their own free will. We therefore divide the total entrants into three classes:

(i) those who successfully complete their training and secure their Certificate of State Registration;
(ii) those who withdraw from their training upon their own initiative except to get married; and
(iii) those who leave the training course for any other reason whatever.

Class (i) above needs no further description. Class (ii), although it excepts girls who leave to be married, includes all who otherwise withdraw of their own free will, such as those who say they do not like nursing, who feel that the work is too hard, who are emigrating with their families, and so forth; so long as the motivation comes from the girl her leaving is recorded in class (ii). Class (iii) includes all those who are rejected by the hospital either because they fail examinations, or are regarded as unsuitable on grounds of temperament or discipline; it includes all girls who must give up nursing because they are ill; it includes all girls who leave to get married. Using this classification we may set out the statistics for the five hospitals in Table 1.

Table 1

showing, for five comparable hospitals over five years, 1950–55,* total number of student nurses who entered, who completed training (class (i)), who withdrew on their own account (class (ii)), and who left for all other reasons, including marriage (class (iii)).

Student Nurse	HOSPITAL				
	A	B	C	D	E
Class (i)	197	65	140	103	110
„ (ii)	44	21	80	79	146
„ (iii)	78	25	38	57	50
Total entries	319	111	258	239	306

* Since the course lasts three years the epoch stretches from January 1, 1950–December 31, 1958.

Table 1 shows clearly that the incidence of class (ii) varies very significantly between hospitals. It is as low as 14% in hospital A, and as high as 48% in hospital E, where we were told it was not unknown for every single girl who entered a particular set (or quarterly entry into the Preliminary Training School) to have given up nursing within a year. The range, in other words, is about 34%, the difference between the highest and the lowest rates. On the other hand, class (iii) is much more consistent between these five hospitals and varies only between 15% and 25%, a range of 10%. It is possible to show that this variation is barely significant. Hence we might conclude from this sample that in trying to understand the wide variations between hospitals in their ability to keep their student nurses, it would be our first duty to examine with particular care the reasons given for voluntary withdrawal.

If, indeed, the girls who leave the hospital of their own free will, whatever the ostensible reason they give, do so because they are in fact ill-adjusted to hospital life, we might expect this to show in their sickness-absence records. These are set out in Table 2, giving the percentage absence in the five hospitals and for each of the three classes.

Table 2

showing, for five hospitals, percentage sickness-absence rates for three classes of student nurses referred to in Table 1.

Student Nurse	HOSPITAL				
	A	B	C	D	E
Class (i)	2·51	2·82	3·72	3·78	2·66
„ (ii)	4·38	3·75	6·68	6·44	5·47
„ (iii)*	2·45	2·47	5·63	4·15	2·96

* Class (iii) now excludes all girls who left because of ill-health.

We see that in each hospital the highest rate of sickness-absence appears among those who have later given up nursing of their own free will. In making these comparisons we have excluded from class (iii) the few girls who were obliged to give up nursing because of ill-health. We are here comparing the sickness records of the girls who withdrew voluntarily with those of the girls who either completed their training or who left for all reasons other than ill-health. The chance of the class (ii) girls having the worst record in five hospitals without there being an

association of sickness with voluntary withdrawal is less than 1%. This result suggests what might be expected, namely, that coming events cast their shadows before them, and that the girls who are eventually to fail in adjusting themselves to life in the hospital show evidence of stress in their sickness patterns before they finally rationalise their withdrawal from training. If this is so and it is claimed that the five hospitals and the girls who enter them are otherwise comparable, it might be argued that hospitals D and E ought to show worse sickness records than hospital C; in fact they appear to be better. The evidence is that girls are actively discouraged from *reporting sick* at hospitals D and E; this may do something to explain their high wastage rates. A note upon this appears as Appendix 1.

It may be said that the differences between sickness rates of different hospitals and of different classes of student nurses within these hospitals depend upon factors that have nothing to do with the adjustment of the girls to their work and training on the wards. It may be objected that we are, after all, comparing the wastage and the sickness-absence of girls in different towns and different hospitals, and thereby ignoring, for example, important local factors, such as climate. We therefore examined the sickness-patterns of six hundred other girls when serving in another set of hospitals. We could do this because a group of hospitals with a common training scheme arrange that their student nurses serve alternately in different hospitals within the same training group. Its preliminary training school (P.T.S.) is in the main hospital and the student nurses, after spending three months in the school, and three months in the main hospital, then alternate between the other hospitals of the group and the main hospital. Not all girls follow exactly the same series of alternations; some will spend six months or even longer in a single spell at either the main or one of the ancillary hospitals. Nevertheless we may estimate, for all the students who enter this scheme at regular intervals throughout a given period (here two years) and pass completely through it, the average sickness during any particular stage of their training period. Some students will make as many as ten changes during their three years, that is, they will serve, in addition to their three months in the preliminary training school, five times in the main hospital and five times at one or more of the ancillary hospitals. The majority, however, will make no more than seven changes, that is, after their three months in the preliminary training school they will serve for four spells in the main hospital and three in one or more of the ancillaries. Table 3 gives the figures for the complete entry of about 600 girls over two years.

Table 3

showing, over two calendar years, and for one main and three ancillary hospitals linked in a common training scheme, sickness-absence statistics for approximately 600 student nurse entrants passing between the main and any ancillary hospital.

Stage	Where served	No. of days served	No. of days sick	No. of sickness spells	Spells per 1,000 days		Mean length of spell (days)	
1	P.T.S.	43,371	310	61	1·41		5·1	
2	Main	53,787	1,141	113		2·11		10·1
3	Anc.	24,723	275	43	1·74		6·4	
4	Main	32,401	943	78		2·41		12·1
5	Anc.	21,799	343	36	1·65		9·5	
6	Main	26,933	1,280	73		2·72		17·5
7	Anc.	14,933	178	26	1·75		6·8	
8	Main	25,362	972	65		2·56		15·0
9	Anc.	6,577	64	10	1·52		6·4	
10	Main	13,342	541	36		2·70		15·0
11	Anc.	1,782	15	3	1·69		5·0	

In preparing this table any sickness-absence that began while the student was on leave in an interval between changing hospitals has been omitted. If a student nurse went directly from one ancillary hospital to another, her days served and sickness-absence are attributed to the same joint ancillary stage.

Table 3 shows that, in the preliminary training school or any of the ancillary hospitals, the sickness-absence rate of the girls is significantly lower than during their service in the main hospital. Sickness-absence has two dimensions: the number of absences per 1,000 days at risk and the mean length of the spell once absent. In each case the main hospital is always worse than the ancillary hospitals. There is something about the main hospital which causes the student nurses to be more frequently sick when they serve in it, and which delays their return to work once they have fallen sick. These results are shown graphically in Figure 1 and the differences are very highly significant.

Table 3 and Figure 1 not only put beyond all doubt the suggestion that the differences between the sickness rates of student nurses are significant, but a comparison of the main hospital with the ancillaries suggests at least one precipitating cause. The main hospital is much larger than the ancillary hospitals; in interview the student nurses who passed through the scheme observed that the size of the main hospital and its pace of work made it comparatively difficult for them to under-

stand what was going on. We may suggest from this that the extent to which the student nurse finds her work to be intelligible is at least an indication of her security; where she feels that she may, beyond a reasonable limit, be expected to take responsibility for matters that she cannot understand, there is a significant likelihood that she will first fall ill, and later even abandon her training. The extent to which the hospital can bring this intelligibility to the nurses who serve on its wards must, other things being equal, depend upon its size and there is evidence, apart from that above, to suggest that large hospitals have peculiar problems of their own. Two unusual examples of the stresses of large hospitals are given in Appendix 2; Chapter 5 also suggests that the cadets enrolled in some large hospitals have more difficulty in remaining in them than do cadets in many of the smaller hospitals.

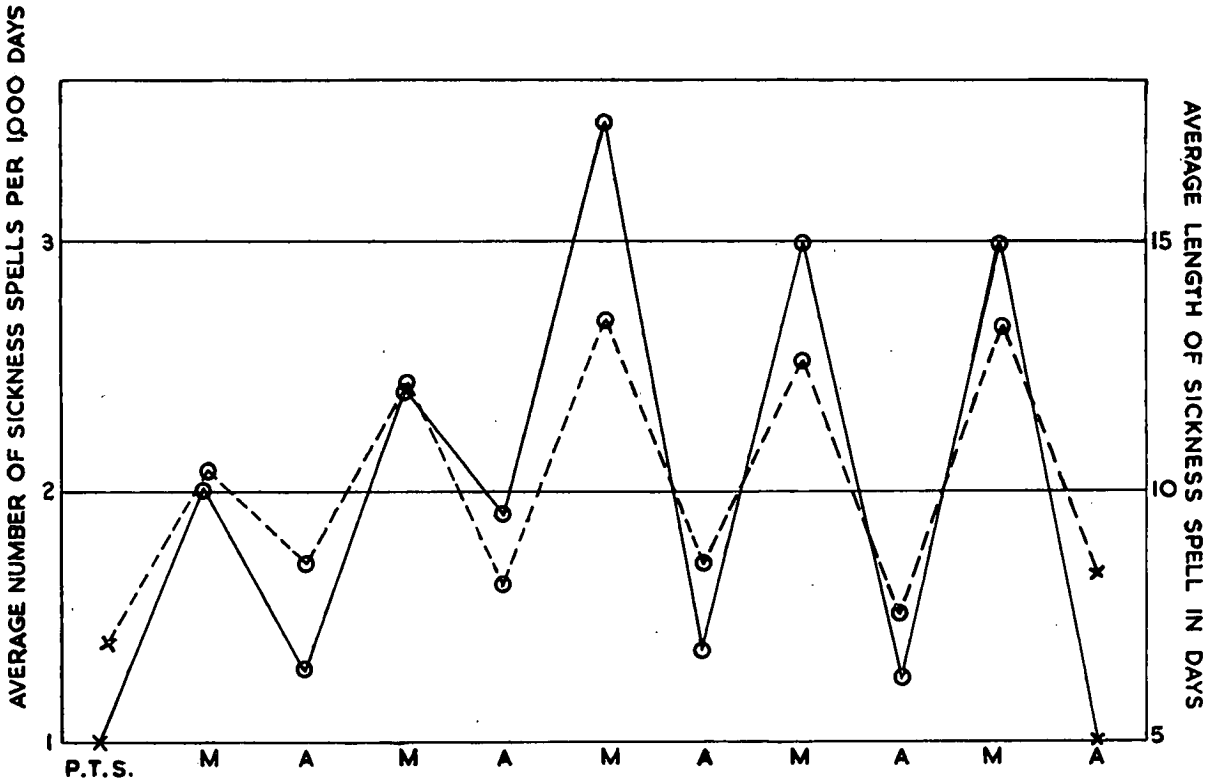

Fig. 1. Showing, for nurses in training at hospital, M, and associated institutions, A, average incidence of sickness in spells per 1,000 days worked, shown dotted; and average duration of spells in days, shown full.

CHAPTER 2

THE ADJUSTMENT OF OTHER HOSPITAL STAFF

IF THE RESPONSES of the student nurses to their experiences in the several Lancashire hospitals are so different, it is reasonable to ask whether other classes of nurse also display responses that differ significantly from one hospital to another. It is more difficult to answer this simple question than might at first be imagined, since hospitals in general have no tradition of personnel management, and their records are not usually in a form that makes comparison of one hospital with another a simple affair. Nevertheless, in the five hospitals at which the student nurse wastage was examined, it was possible, after the expenditure of nearly one whole year of effort on the part of a research student, to tabulate the periods of service of nearly 6,000 women who, to some extent, shared the experiences of the student nurses.

These women were of several different classes; matrons and their deputies, ward sisters, staff nurses, assistant nurses and domestics. Matrons and their deputies do not, of course, join in the tasks of the ward with the student nurses; many of the domestics never go on the wards. There are, however, four classes of nurse—ward sister, staff nurse, assistant nurse and student—who work, or should work, closely as a team; it might be expected that, in any one hospital, the wastage or retention patterns of the four classes were significantly concordant.

Table 4 gives the distribution, by hospital and by category, of the mean period of stay in months, of 5,828 women at the five hospitals and in the six employment categories. One category totals only 35 members, the matrons and deputy matrons at the five hospitals, over the years 1938–1956 inclusive; the other categories give the figures for 1949–1956 inclusive.

It can be shown that the array of Table 4 has a highly significant concordance. We may, for example, write the average periods of stay of the four ward categories of nurse in rank order and obtain Table 5.

Table 4

showing for the five hospitals and six categories of women staff, average period of stay in months. (Periods below three years given to nearest tenth part of one month.)

		Mean period of stay (months) for given hospital and category					
Hosp.	Turnover of Staff at Hosp.	Matrons and D. Ms.	Ward Sisters	Staff Nurses	Asst. Nurses	Student Nurses	Domestic Workers
A	979	188	59	12·5	28·3	33·5	30·7
B	792	74	87	14·3	26·0	32·6	16·9
C	1,354	150	44	11·8	16·8	30·4	28·6
D	889	44	29·5	9·2	7·1	30·1	21·4
E	1,814	101	57	8·5	18·3	27·4	17·4
No. of Staff All	5,828	35	444	992	575	1,233	2,549

Table 5

showing rank order of average length of stay by five hospitals and four categories of ward staff.

Hospitals	Ward Sisters	Staff Nurses	Assistant Nurses	Student Nurses
A	2	2	1	1
B	1	1	2	2
C	4	3	4	3
D	5	4	5	4
E	3	5	3	5

This table suggests that hospitals A and B are consistently better than any others and that D and E are generally bad. The probability that this could occur at random is about once in a thousand times; we must thus conclude that the tendencies of hospitals A and B to keep their ward staff and of hospitals D and E not to do so are organic. If, in addition to the four classes of women who work together on the wards, we consider the two further classes, of matrons and domestics, the concordance is repeated, so that we are able to assert with confidence that,

in any one hospital, there is throughout some factor with which the wastage of all staff is, in some significant degree, associated. If we, for example, contrast the averages of hospitals A and D in Table 4, we obtain the two series of ranks:

Hospital A: first, second, second, first, first, first
Hospital B: fifth, fifth, fourth, fifth, fourth, third.

A man who, after reading the results of six successive appearances of two racehorses or of two beauty queens, discovered that they had been ranked in these orders, would have no doubt whatever that there was a reason for the consistent ascendancy of A over D. He would refuse to admit (unless he were grossly biassed by, say, owning the losing racehorse or being married to the rejected beauty queen) that the results were purely random; he would, on the contrary, say they were *caused*, either, in the one event, by A being a faster racehorse or, in the other, by A's more evident, if superficial, attractions for the kind of men who judge women by their appearance.

The importance of this result is to remove any suggestion that the wastage of student nurses at any particular hospital is, as it were, something on its own, a localised or specific symptom to be treated independently of the general state of staff wastage throughout the hospital as a whole. It may, of course, very well be that one can profitably prescribe treatment specific to student nurse wastage, such as to change the conditions under which they are taught in the training school; such therapy might not react much upon the rest of the hospital staff. But if one attempted to improve the conditions under which they were, say, taught on the wards, one might begin to put right matters of importance to other grades of staff as well. It is, on the other hand, conceivable that, in trying to improve certain limited conditions for one class of nurse, conditions may be made worse for another, though in practice this is unlikely. If, for example, ward sisters protested loudly enough, for long enough, that they had no privileges in securing time off on desirable occasions (such as Saturday afternoons) but were obliged to await their turn with their juniors, it might eventually be conceded that they were given priority for off-duty hours. This would, however, suggest favouritism to others on the ward and might have an unhappy effect upon their loyalty to the hospital. But such inverse interactions would be rare; in general, as Table 5 suggests, whatever strengthens the attachment of one group to the hospital undoubtedly strengthens the attachment of others.

The relevance of this result should be apparent. For when it is pointed out to the administrators of some hospitals that the wastage rate among their student nurses is higher than the regional average, their first reaction is to attribute this to the ease with which the fugitives are able to secure interesting or lucrative employment in the locality. Since the girls who leave can be observed to have taken work somewhere in local offices, mills or retail stores, and since it is improbable that they would be paid less than as nurses, it is often asserted that high wages or short hours have seduced them from the arduous toil of the wards; their romantic yearnings are now satisfied, it is explained, and they are awakened to reality. But ward sisters, much less matrons, do not leave hospitals in order to earn high wages in easy jobs at local shops or factories; they give up their posts at particular hospitals in order to seek conditions more agreeable to them in other hospitals. Many student nurses would wish to follow their example, but are at times unable to do so—or believe themselves unable to do so—because, it is said, matrons in charge of training schools are reluctant to take on student nurses who fail, for whatever reason, to complete their training at other hospitals. We have no evidence other than the statements of the student nurses for this. However this may be, the simple demonstration that the wastage patterns of all grades of nursing staff in the same hospital show this concordance should be enough to discredit any explanation of wastage that assumes the student nurses to be, as a singular class, dragged from the hospital by outside attractions rather than motivated to leave it by internal pressures felt also by their more senior colleagues on the same wards.

A further argument against the young girls in certain towns being positively attracted by other work may be built upon the employment statistics. For example, we can ask how long girls of the same age as student nurses stay in other jobs in the three towns of hospitals A, C and E; if the high wastage at hospital E is encouraged by a high local availability of easy and well-paid jobs and the retentivity of hospital A by the comparative absence of such opportunities, with hospital C in between, we might anticipate some reflection of this in the local employment statistics. We were fortunate, in trying to answer this question, to get the help of a nationally known chain store that takes a great deal of trouble to select and train its staff, most of whom begin as girls of the same age as nurses. Over the same five year period as that chosen in Chapter 1 to examine the wastage of the student nurses, the figures for recruitment and wastage in the chain stores of the three towns are as given in

Table 6, together with the percentage of voluntary wastage among the student nurses.

Table 6

showing, for three stores belonging to the same organisation, number of employees on books over a period of five years and mean length of stay in employment; and, for comparison, percentage voluntary wastage of student nurses from hospitals in the same town over the same period.

Town of Hospital	Number of Employees	Av. period of employment	Av. voluntary nurse wastage
A	174	5y 2m	14%
C	232	2y 2m	31%
E	154	5y 0m	48%

It can be seen that there is no significant difference in the responses of the store girls in the towns of hospitals A and E; these two hospitals, on the contrary, display marked differences in their abilities to retain the student nurses they recruit. Moreover, whereas the mean wastage of student nurses in hospital C is exactly the average of hospitals A and E together, the turnover of staff in the local store is more than double that of the stores in the towns of hospitals A and E. We have, on examining other aspects of employment in these towns, been able to find no evidence that it is easier to change jobs in the town of hospital E than in the others, and must therefore conclude once more that external conditions cannot be invoked to explain the significant differences between the attachments of student nurses to their respective hospitals.

CHAPTER 3

THE LENGTH OF PATIENT STAY

THESE STUDIES of student nurse wastage and sickness and of the loss of other nursing and domestic staff in a number of hospitals suggest that there is, of any given hospital, some characteristic helping significantly to determine the willingness of the staff to stay in its service. Hospitals that cannot keep junior nurses tend not to keep ward sisters; they do not readily keep domestics, and they seem unable to keep even their matrons. We must ask whether these same hospital qualities are likely to influence the observable experiences of the patients. In the present state of our knowledge the simplest way of approaching this question is to ask if the average length of patient stay differs significantly from one hospital to another, and, if so, whether it is likely to do so for reasons internal to the hospital and so, perhaps, under the control of those who serve there. Insofar as we have been able to make use of the statistical evidence available to us, the answers to this question are, first, that hospitals differ significantly in their average lengths of patient stay, that hospitals keeping one diagnostic group of patient longer than average tend to keep other groups longer, and that hospitals with unstable nursing staffs tend to return long periods of patient stay in all specialties.

The first survey, involving the examination of some 3,000 case notes, was undertaken in seven acute general hospitals, all situated in large towns in the North of England. The patient specialties studied were all surgical: appendicectomy, hernia repair, cholecystectomy and partial gastrectomy.

These four diagnoses were chosen, in the first instance, as offering reasonably large numbers of cases with a consistent average length of stay; they were each studied in all seven hospitals over a period of one year, namely, 1959. Care has thus been taken to ensure that the inter-hospital comparisons are meaningful and that the results are significant, even although sampling has taken place.

The use of convalescent homes attracted attention early in the survey. At one extreme was the hospital which does not use convalescent homes at all, mainly due to their remoteness or restricted availability; at the other extreme was the hospital which sends 70% of its general surgery patients to convalescent homes before discharge. We found, as one would expect, that patients who also go to a convalescent home spend a shorter time in the hospital itself, but a total time away from home longer than of those who are treated wholly in the hospital. For strict comparisons between hospitals, only those patients wholly treated in the hospital itself have been considered here. It is assumed that the availability or otherwise of a convalescent home does not alter the treatment accorded to "hospital-only" patients.

We studied the records of 654 appendicectomies, with a mean stay of approximately 10 days; about half of the cases (331) have lengths of stay of 7, 8 or 9 days, with an extreme range from 2 to 56 days. The layman and, not seldom, the doctor may feel that, because the data are so variable, that is, because there is this great spread, no useful conclusions may be drawn. On the contrary, when presented with a mass of variable data which can be classified, the statistician may be able to say that a measurable amount of the variation is due to differences between the classes, and the remaining variation is due to differences within them. Here we can say that the variation of the 654 lengths of stay is due to both real differences in average length of stay between

Table 7

showing average length of stay of appendicectomy cases not using convalescent homes in the seven hospitals.

Hospital	Number of cases under consideration	Mean length of stay in days
I	153	8·3
II	45	8·8
III	66	10·8
IV	93	11·6
V	150	11·1
VI	74	10·7
VII	73	9·6
Total	654	10·11

hospitals and also the variation in lengths of stay of individual patients in each hospital about that hospital average.

The results of the inter-hospital comparisons for the appendicectomies are given in Table 7. The differences in numbers of cases are due not only to the varying sizes of hospital but also to the extent to which each hospital uses its convalescent home, since patients sent to convalescent homes do not contribute to our analysis.

It can be shown (see Appendix 2) that these averages differ significantly between themselves, that is, the differences between them cannot be accounted for by the variations in length of stay of individual patients. The mean of hospital IV is 40% more than the mean of hospital I; the chance of this being due to sampling is much less than one in a million. Nor can we invoke differences between the pressures on the hospitals from the waiting lists; indeed, hospitals with long waiting lists often had the longest periods of patient stay and *vice versa.* This situation would be perfectly intelligible to a student of queueing theory, which demonstrates that given equal demand, the mean length of queue depends upon the service time. Hospitals, of course, do not entirely present random queueing situations, since many patients are advised when to come for admission; the analogy, however, is not misleading.

This analysis can be carried one stage further. Any patient is treated under one and only one of a group of consultants, each of whom normally uses a specific ward or wards. Thus it could be argued that variation in individual lengths of stay is partly due to significant differences between the practices or policies of the consultants. We can test this by classifying patients in any hospital by the consultant responsible, and once more examining the interclass variations. There were, for example, four general surgical consultants in hospital I, and the results of these inter-consultant comparisons are shown in Table 8.

Table 8

Average length of stay of appendicectomies treated by four different consultants in hospital I.

Consultant	No. of cases treated	Av. length of stay in days
(i)	28	8·8
(ii)	47	8·1
(iii)	23	8·5
(iv)	55	8·1

These differences are not significant, that is to say, variations in individual lengths of stay cannot be assigned to differences between consultants. These conclusions for appendicectomy cases hold for each of the three other diagnostic groups at hospital I. When the appendicectomies in the other six hospitals are examined for possible consultant differences, the same conclusion is found. The data have also been analysed for possible differences due to the ward used and any differences so reflected could be attributed to differences between sexes, women tending to remain significantly longer than men. Similar results also apply in each of the three other groups of cases; that is, consultants and wards in any one hospital show no differences among themselves. We may therefore conclude that some factor characteristic of a given hospital seems to influence the time which any individual patient stays in it, whatever his diagnostic group, whoever his consultant and whatever his ward.

This examination of the case notes leads us to search for the characteristics of particular hospitals. We may ask a further question: if one hospital takes longer to discharge comparable surgical patients, does it also take longer to prepare them for their operations? The evidence is set out in Table 9, which shows in its left-hand array the rank order, for the seven hospitals and the four conditions, of the average length of pre-operation period.

Table 9

showing for seven general hospitals and four common surgical diagnoses, rank orders of average pre-operation and post-operation periods.

Hospital	Rank order of average length of period							
	pre-operation				post-operation			
	A	H	C	G	A	H	C	G
I	6	4	4	2	3	1	1	5
II	5	5	6	3	7	6	5	6
III	7	7	7	7	6	7	6	7
IV	3	3	3	4	5	4	3	2
V	1	6	5	6	2	2	7	3
VI	2	2	2	5	1	3	2	1
VII	4	1	1	1	4	5	4	4

NOTE.—A. appendicectomy, H. hernia repair,
C. cholecystectomy, G. partial gastrectomy.

The coefficient of concordance of this left-hand array is 0·60, significant at one part in a hundred. In other words, on the evidence of 3,000 surgical cases in seven general hospitals, drawn from four common operation classes, we may assert with confidence that hospitals that are slow to prepare one class of patient are slow to prepare another. Since, in any one hospital, there seems to be no difference between the patterns of the individual surgeons in that hospital, we may conclude that the validity of our hypothesis about hospital characteristics has been further demonstrated. We may draw the same conclusion from the right-hand array of Table 9, which ranks the average periods between operation and discharge. This array demonstrates, again at a significance level of one in a hundred, that the hospital at which one patient is rapidly discharged after operation for appendicectomy tends rapidly to discharge after operation another patient for hernia repair, and so forth. Finally, if the two arrays are considered together, they show greater concordance still; the random chance, for example, of the total rank-score of hospital III amounting to as much as 54 (suggesting slowness throughout) while that of hospital VI is as little as 18 (suggesting swiftness throughout) is less than 1 in 1,000. Despite the apparent scatter in this table (hospital V, for example, being top of the list on one score and bottom on another) it suggests a consistency about the velocity of patient treatment in individual hospitals such as should merit the attention of students of their administration.

While this essay was being written a set of statistics from a report prepared by the statistician to a Regional Hospital Board came into our hands. They included figures, for average length of patient stay, prepared by hospital staffs to whom the arguments of this chapter must be unknown; they may thus be used for an independent test of this hypothesis. The set of figures was for 34 hospitals and for nine diagnostic groups; some hospitals did not admit patients in certain groups, others used the services of convalescent units. An array of average lengths of stay by hospitals and by all diagnostic groups is prepared to satisfy the following conditions:

(i) no hospital selected shall use a convalescent unit, so that all patients are discharged home and thus, in comparing average stays, like is being compared with like;

(ii) the number of patients in any diagnostic group in any hospital in the period (1961) shall be at least 12;

and this is shown at Table 10; it is drawn for 14 hospitals and for nine diagnostic groups. The other 20 hospitals either discharged to con-

valescent units or did not admit enough patients in any diagnostic group. The coefficient of concordance of this array is 0·37 and is very highly significant; the tendency for the shorter stays to appear in particular hospitals and the longer stays in other hospitals could not possibly have occurred by chance (see Appendix 4). We may thus assert with confidence that there is some hospital factor associated with shortness or length of stay. This is not likely to be pressure upon the beds, since there was no correlation whatever by hospitals between mean bed occupancy and mean length of stay. Nor is it helpful to suggest that some administrative artefact such as a systematic difference between admission and operation days could explain this concordance. If one hospital, to take an extreme case, admitted patients only on Mondays and discharged only on Fridays (always, moreover, keeping the patients longer rather than discharging sooner) the mean length of stay would be about three days greater than in the hospital giving identical treatment but discharging at any time during the week. Six of the nine ranges in Table 10 exceed a week.

Table 10

showing, for 14 hospitals in the same region, mean length of patient stay (in days) in nine diagnostic groups.

Hospital	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
I	25·0	10·3	11·4	17·6	16·7	15·4	9·1	10·0	13·9
II	27·4	16·5	11·9	12·8	10·8	9·7	9·3	13·3	20·4
III	27·4	15·7	12·6	22·0	17·2	20·3	9·6	11·9	18·2
IV	23·2	14·1	11·7	19·8	23·6	18·8	9·7	10·4	14·8
V	21·6	12·0	12·1	16·6	12·9	16·7	12·2	11·1	17·7
VI	23·9	9·4	9·6	15·6	14·9	13·5	10·6	10·1	11·7
VII	20·4	10·6	10·6	12·6	11·9	15·6	10·7	11·2	16·7
VIII	21·5	11·9	11·8	11·6	12·5	17·0	10·3	12·7	16·8
IX	18·8	8·9	12·6	13·0	14·9	18·8	10·0	11·7	14·7
X	19·2	12·9	10·2	14·6	11·9	16·7	11·6	11·0	18·4
XI	23·9	13·5	11·2	16·9	19·6	17·2	11·4	13·5	19·0
XII	25·8	13·6	12·1	18·5	16·5	20·4	10·5	13·4	19·3
XIII	19·3	21·3	12·9	16·8	12·3	19·4	14·6	10·9	18·6
XIV	16·6	11·1	10·6	13·3	13·6	12·5	10·6	10·6	14·3

Key to diagnostic groups.

(i) Arteriosclerotic heart disease.
(ii) Varicose veins.
(iii) Haemorrhoids.
(iv) Pneumonia.
(v) Bronchitis.
(vi) Peptic ulcer.
(vii) Appendicitis.
(viii) Hernia repair.
(ix) Diseases of gall bladder.

We know very little about the final decision to discharge a patient from hospital, and until all the events that lead up to it have been examined in a wide sample, drawn from different hospitals, different consultants, different wards and different patients, we shall continue to know very little. What these hospital factors contribute we do not know, although we may make interesting guesses. Perhaps in an age of advancing medical and surgical technology, some hospitals are slow, not so much to use current methods, as to show confidence in their results; for this reason patients, although getting the same benefits as those in other hospitals, are retained as long as formerly, "just in case". Perhaps the patients in fact recover more slowly; nobody is surprised when two "identical" patients in adjacent beds improve at significantly different rates, because one liked his nurses and the doctors, while the other found them short-tempered, or too busy to pay much attention to him. Is it not possible that such differences could be detected, not only between individual patients, paired in adjacent beds, but also between large aggregations of patients, paired in adjacent hospitals?

Patient stay and staff wastage

We must now ask whether these hospital characteristics are likely to be associated with the stability of the staff. We set out in Table 11 the average lengths of stay for 1958 of five sets of patients at the five hospitals whose staff wastage is discussed in Chapter 2; in addition to the four surgical operations of appendicectomy, hernia repair, cholecystectomy

Table 11

showing, for 4,752 patients discharged from five comparable Lancashire hospitals, average length of stay in days according to diagnostic group.

Hosp.	No. of Patients	App.	H.R.	Chol.	P.G.	Resp.
A	1,362	7·5	7·9	12·2	15·5	15·7
B	659	9·5	10·9	18·1	17·3	20·0
C	766	10·9	13·1	17·7	15·0	20·1
D	496	11·6	14·0	23·9	27·6	24·0
E	1,459	12·1	13·6	26·7	26·1	20·6
Total No. of cases	4,752	2,059	894	493	290	1,016

and partial gastrectomy we have included the diagnostic group of respiratory complaints, asthma, bronchitis and pneumonia.

This shows that, in four out of five classes, hospital A has the shortest mean stay, while hospitals D or E have the longest. The concordance, or tendency of the five hospitals to display a uniformity of response independent of the specialty or diagnostic group is so great that it could not occur by chance once in a thousand times. It must therefore, as we argue from Table 10, be caused; it is the manifestation of a set of characteristics proper to the five hospitals. Moreover, we can see from Table 12, obtained by placing Table 5 of Chapter 2 side by side with Table 11 (converted to rankings rather than averages expressed in days), that the concordance of patient stay is probably that of staff stability as well.

Table 12

showing, for five comparable hospitals, rank orders of staff and patient stay.

Hosp.	Rank orders of Staff Stay				Rank orders of Patient Stay				
	Ward Sister	Staff Nurse	Asst. Nurse	Student Nurse	App.	H.R.	Chol.	P.G.	Resp.
A	2	2	1	1	1	1	1	2	1
B	1	1	2	2	2	2	3	3	2
C	4	3	4	3	3	3	2	1	3
D	5	4	5	4	4	5	4	5	5
E	3	5	3	5	5	4	5	4	4

This table aligns the stability of the ward nursing staff with the average period of patient stay; the concordance throughout the two arrays is overwhelming. If the tendency for hospital A to attract the small numbers and hospital D the large is purely random, we are observing the occurrence of an event that could occur at random (that is, without underlying cause) not once in a million times. It is impossible to overlook the chance that the two sets of figures, of patient stay and of ward staff stay, might be causally related. For if there is some quality about a hospital ward, or about all the wards in a particular hospital, that determines the desire of those who work there to get away (or to stay) it is inconceivable that the patients should be unaffected by this quality, whatever its nature or origins. We obviously cannot identify it by further statistical analysis alone; it is essential to study the situations

on the wards, and in this the following quotation, from the writings of a research worker who, independently of this study, interviewed many hundreds of recently discharged patients, may offer a suggestion.

"The importance of the ward sister to the patient cannot be over-emphasised. The junior nurse would be judged perhaps by her friendliness, a staff nurse perhaps by her technical skill, but the ward sister was judged by the atmosphere of the ward. This, if its importance can be judged by the number of times it was mentioned, was of the utmost importance to patients, some of whom claimed a direct correlation between the rate of recovery and the atmosphere of the ward." (The Patient's Attitude to Nursing Care, Anne McGhee, page 41.) The main thesis of this essay could not have been more lucidly stated.

CHAPTER 4

THE ANALYSIS OF WARD ACTIVITIES

To ANTICIPATE the results of our detailed studies on the wards we may say here that the student nurse has two main needs: the first is to acquire adequate technical knowledge of her job and the second is to establish herself as a person. She needs not only clinical instruction but emotional support; she has not only to learn how to carry through such-and-such a procedure and be marked up in the record as having done so, but she has also to gain that confidence in herself to carry out that procedure in the face of the recurrent stresses and anxieties of her ward experience; this means that she will have to gain the confidence to enable her to decide the priorities of urgent tasks, or of the claims of equally ill patients. While confidence in one's own ability lends support in all situations, the young nurse also needs to know that in moments of particular stress she can confidently call upon the support of others. When one hears matrons of fifty admit (in a quite different context) that they still feel uneasily inferior discussing some latest circular with their medical colleagues, or even that to face regular meetings with their ward sisters is still a prospect of dread, it is small wonder that, in the first three months of life on the ward (or, more so, in her first week of night duty) the young nurse needs the friendship of those more experienced than herself. A girl in her first year may, in the sense of being able to answer questions formally put at a lesson in a classroom, know as perfectly as does the President of the Royal College of Physicians what should be done in such-and-such a bedside situation. But in the solitary darkness of her first night duty her approach to what needs to be done, of what she knows about it, and of how she does it may be very different from her confident exhibition under the academic cross examination of her sister-tutor; at her first midnight it may be of major importance that the superintendent on duty promptly answers her call, if only to reassure her that she is doing the right thing. We show, for example, that in free

interviews the student nurses volunteer more than twice as many comments on interpersonal relations within the hospital as they do about their experiences of formal training (see Chapter 7). It is these interpersonal relations in the work situation that determine how far the student regards her new experiences with interest and gratification, or how far, on the contrary, they are sources of anxiety or even of loss of self-respect.

In order to understand how far the nurse finds support in her new responsibilities we need to know how far the sister in charge of the ward is able to spend time with the new recruit, and how far those formally in charge of nurse training are able to give general supervision to her integration into the hospital. We must answer at least two questions: What are the relations between the ward sisters and the sister-tutor? How does the ward sister spend her time?

We do not propose to say a great deal about the first of these, except that these relations vary greatly between hospitals. We found, for example, that about half the ward sisters interviewed felt that formal training schemes were too theoretical; about a quarter of the sisters thought they actually glamourised the ward task. The strength of these views differed widely between hospitals, but their existence suggests stress between the wards and the training schools. On the other hand, we found the sisters and junior nurses in some hospitals speaking appreciatively of the tutorial staff, although their views of the organisation as a whole were extremely unfavourable; in one hospital that could be described only as socially sick (hospital Q of Table 18) the nursing staff almost without exception spoke warmly of the training system. Had this been informed by the same unhappy spirit as the rest of the organisation the general condition of the hospital would have been sorry indeed; that it was not so may be attributed mainly to the cheerful temperament of one or two of the senior tutorial staff. In other hospitals we found the division between the ward sisters and the tutors such that the sisters were never invited to visit or to lecture in the training school, nor did the sister-tutors ever visit the wards to observe the progress of the students. The study-blocks spent by the student nurses back in the training school, during which they received further instruction from the tutors, were carried on in complete isolation from the ward staff; these, in turn, taught, supervised, and recorded as satisfactorily completed or not, the large number of clinical procedures in which the student must be proficient to gain her registration; and all this was done without the ward sisters being taught how to give a demonstration, how to

gauge whether the student nurse is in fact learning, or in any other way how to profit from the professional knowledge at hand in the tutors of the training school. Several hospitals seemed almost determined to preserve this isolation of interest, to keep the ward and the training schools divided, and their plans for new buildings generally assumed that they would remain apart. While it is no doubt possible to attribute some of these antagonisms, along with endless others to be found, alas, in every corner of our institutionalised society, to the infirmities of human nature, it was nonetheless remarkable to discover that the management committees of these hospitals, reponsible for their policies, were largely unaware of them. Although they spent a great deal of time discussing the wastage of nurses and its consequences for the staffing of the wards, they were unaware, or appeared to be unaware, of the internecine struggles that went on inside the very training system itself, and that were taken up afresh as one redoubtable generation succeeded another. The current move to appoint clinical tutors to take over the more complex instruction on the wards will, if it is to succeed, often demand all the good will available, and, occasionally, somewhat more. Nor is this all. Some very delicate questions about the responsibility for and supervision of these itinerants will need to be answered; in particular, they cannot pretend to relieve the ward sister of her vital task of lending the student nurse the emotional support that she will so often need.

These examples may be exceptional, but they serve to show some of the effects of the human problems that may arise in the higher levels of the nursing administration itself. If the senior tutor and the ward sisters are not on wholly good terms—and this is primarily a problem for the matron, or in a group scheme for the several matrons—it is the student nurses who suffer. An interesting problem in administration, that will be touched on later, is raised for the hospital management committee: How does it know what in fact goes on, as distinct from what is said to go on, at the point where the student nurses gain experience? The same question may be asked about hospital cadets. The impending concentration of training into the larger general hospitals will make it the more necessary to give attention to these delicate but often opaque affairs. The hospital service has plenty of favourable experience with which to answer these questions; the problem is to bring it to the attention of those who may have such problems without being clearly aware of them. On the other hand, we found one hospital in which there was the greatest good will between the ward staff and the training staff and in which constant experiment was going on to discover what was better

taught by the sisters as part of normal ward duty, and what was better done by the clinical tutors drawn into the wards from the training schools. This seems to us the perfect solution to a difficult problem; namely, that the tutors and the ward sisters should not merely agree about how to share out the training task, but that they should from time to time adjust their respective shares. A hospital that constantly reviews its own organisation is learning to know itself, and it learns not only about its current problems, but also about its channels of communication, its various informal structures, its status system and, above all, the impact that its staff have upon each other. In our view, one of the greatest needs is that all management committees should encourage amongst their senior professional staffs some such spirit of enquiry and criticism. The good hospitals that we encountered seemed always unafraid, even positively anxious, to discuss their problems; the committees and staffs of the bad ones generally denied that they had any. A concern for what is going on within the hospital, and an awareness of the problems on the wards, are not merely to display some patronising encouragement calculated to raise the flagging energies of the overburdened nurses; the problems of many hospitals are both so deeply organic and so ill-perceived by those in positions of power that only by developing internal methods of social learning to make the senior staffs more aware of what is happening under their jurisdiction will there be promise of improvement.

To understand how much attention the ward sister is able to devote to the integration of her student nurses we must know something of the sister's work patterns. It is possible to form an accurate enough estimate of the amount of time that she gives to the four main divisions of her work, namely, administration, basic nursing, technical nursing and domestic and miscellaneous activities.* In this classification, "administration" includes all those duties of the ward sister that bring her into contact both with other members of her ward team and with other persons in the hospital—doctors, matron, administrative staff, staff of para-medical and ancillary departments, and so forth. Administration, therefore, might be described as "collecting, processing and transmitting information about the work of the ward."

A number of observers have developed methods of recording the

* The Work of Nurses in Hospital Wards, London. Nuffield Provincial Hospitals Trust (1953). In studying the work of the sisters, the two classes of domestic and miscellaneous separately observed in this earlier Nuffield Report have been amalgamated, since sisters carry out little domestic work as specified by that report.

minute to minute tasks of the sisters and some typical results are given in Table 13.

Table 13

showing percentages of ward time spent on four main classes of activity by seven sisters in one large Manchester hospital.

Sister	Administration	Basic Nursing	Technical Nursing	Domestic and Miscellaneous
A	34	17	41	8
B	36	19	35	10
C	44	18	32	6
D	44	9	29	18
E	26	29	32	13
F	28	21	21	30
G	59	6	20	15

The distribution of how her time is spent varies from one sister to another according, to some extent, to the nature of the work carried out on the ward. Table 13, which analyses over 200 hours of activity, is drawn for seven sisters at one particular hospital; judged by the criteria used in this report the hospital was a good one and this particular table is included since sister E was regarded by her matron as a quite exceptional nurse. She had, in fact, some years before sought promotion and become the matron of a small hospital; she had, it was told, been successful at this task; after a short while she had decided that her true calling was with the patients and had returned to her task on the ward at her old hospital. She was respected by all the other nurses to whom we spoke and the students regarded it as a privilege to work for her.

We observe that administration is, averaged over all the sisters, the activity that occupies the greatest share of their time, namely, about 39%; after this comes, as would be expected, technical nursing, averaging 30%, and basic nursing, average 19%. But there is the greatest variety among the individual sisters themselves. Whereas sister E devotes only 26% of her time to administration, sister G devotes 59%; this is a very great difference and there was nothing to suggest that sister G's ward was better organised than sister E's. Indeed, the difference was in favour of sister E. Sister E, we observe, spent significantly more time than her colleagues on basic nursing; she was not surprised when this was pointed out to her and remarked that this probably gave

her more opportunity to understand both her patients and her junior nurses, since informal conversation was easier when engaged in simple tasks with her staff than when performing delicate procedures. We notice, however, that she did the average share of technical nursing. Her scores differ markedly in two respects from most of her colleagues, except sister F, in that she spent much less time on administration and considerably more upon basic nursing. Different sisters must, of course, decide for themselves in what ways they will make easy and informal contacts with their juniors, but certainly sharing the tasks of basic nursing with them is as promising an avenue of contact as any other. There is a significant negative correlation between time spent on basic nursing and time spent on administration; sisters who become absorbed in written work spend little time with their students.

Our observations of the ward sister's activities may be sorted in order to exhibit the amount of conversation that she has with her ward team. In general, ward sisters average about ten conversations an hour with all other persons in the hospital, from consultants to porters, from ministers of religion to ward maids; this excludes conversation with patients. Of these ten per hour, about half are with her own subordinates, half with hospital staff elsewhere. For a number of wards that were observed in detail, each for a total period of about 30 hours, a representative distribution of the sister's conversations, by length, with subordinates, by rank, is set out in Table 14. These observations were made mostly during the busy morning hours of 8.00 a.m. until 1.00 p.m.

This reveals an average rate of about five conversations per hour. Of

Table 14

showing distribution, by length of time and by members of subordinate ward nursing staff, of conversations of ward sisters over approximately 30 hours.

Grade of Ward Staff	Number and lengths of conversations in minutes					
	0–½	½–1	1–2	2–5	5+	All
Junior Sister	16	3	2	1	0	22
Staff Nurse	31	1	2	3	2	39
3rd year student	40	0	2	2	1	45
2nd year student	37	0	1	0	0	38
1st year student	13	0	0	1	0	14
All	137	4	7	7	3	158

these the majority last less than half a minute. It is rare, or it was during these observations in this hospital, for a ward sister to spend more than two minutes in continuous conversation with any of her subordinates; she will, of course, have much longer conversations with her superiors, although they may be less frequent. What is striking is the small amount of time here shown as spent in conversation with the first year nurses. It is clear from this sample of observations that, the more senior the nurse (except for the junior sister, who mainly gets on with her tasks without needing to consult her immediate superior), the more time she is able to claim from the sister, and this can be taken to suggest the measure of her usefulness or responsibility in sharing the total task to be done on the ward. Other observations suggest that sisters spend between 5% and 7% of their time in conversation with their subordinate nurses; this is very small compared with the figures suggesting the total amount of their time devoted to administration, namely, from 26% to 59%. The range of this is about six times the average total time devoted to conversation with all her subordinate nurses, and an even greater multiple of the time that she spends in conversation with her first year nurse; in the example given, this is less than 1% of the ward sister's time. Hence the planned or even the adventitious induction of the student nurse must occupy only the most marginal amount of the average ward sister's attention, since over half of the conversations that the sister can be observed to engage in with her are little more than direct instructions and their acknowledgement. They are in no way the exchange of ideas and the sharpening of perception that form the essence of true learning, either by the nurse or by the sister. But when we come to examine the time spent by the ward sisters in other forms of administration we find that some of them spend up to 30% of their time on purely clerical activity. We found, both by these direct observations on the wards, as well as by the commitments to clerical work expressed by the ward sisters, that there were significant differences not only between sisters but also between hospitals. While (as in Chapter 8 and Appendix 5) we find no evidence that sisters with deep concern for clerical work actually express attitudes towards junior nurses that are less sympathetic than those who carry this commitment lightly, the fact remains that, whatever her attitudes, the sister who gives 30% of her time to written exercises spends less time among her staff and hence has less chance of helping their adjustment to her particular ward. We return to examine the ward sister's tasks in a later chapter.

CHAPTER 5

HOSPITAL CADET SCHEMES

General observations

Although much attention has been given to identifying the causes of wastage among student nurses, we know relatively little about the attitudes or motivations of girls before they set out to train for the profession. While it may be easy to enquire of a girl (and misleading to accept her unqualified reply) why she has given up her training, it is less easy to learn anything positive about her reasons for becoming a nurse in the first place. But there is one ready source of information about younger girls determined to become nurses, and this is the hospital cadet scheme. It is, of course, a highly biassed sample of the adolescent population that enters these pre-entry courses; to some extent, since their minds may be made up at 15, they are even more determined to become nurses than are their colleagues who first enter the hospital at 18 or thereabouts, often after as much as three years in another job, and who go straight into the preliminary training school. For all that, girls of 15 or 16 are, on the whole, very different persons from girls of 18 and we thought it worth while to make the acquaintance of a sample of them, and to learn a little of their views of hospital life and experience. This seemed to us additionally important, since at the time of starting our enquiry, the report of a group of people prominent in the nursing world, although not formed into an official commission, had just appeared; it was almost entirely opposed to hospital cadet schemes on all grounds.* It was particularly opposed to any lowering of

* The report was entitled "The Overtaxed Nurse" and it contains the following statement:

"The Committee is unanimous in its disapproval of cadet schemes, whether in general or in mental hospitals, feeling that the possible gain of 'catching them young' is more than offset by the potential and actual damage done by a too early introduction to nursing—feeling that young people should maintain the widest contact with

the age at which girls should start to gain experience on the wards; this was a further and emphatic display of an opinion that appears to be widely held throughout the upper reaches of the nursing profession. The evidence available to us, both from the cadets themselves and from those in the hospital who appeared to us to have the most sympathetic understanding of these younger girls, does not support this view. We agree that many hospital cadet schemes leave much to be desired, and that they may seem to be, in particular, an expensive item in the hospital accounts. But this, in our view, is not because they are misconceived nor because the girls in them would never repay the expenditure made on their behalf. We believe, on the evidence we collected, that, given more care and attention, these schemes could become a most important channel of entry into the profession; moreover, we have no evidence to suggest that the last word has been said about the minimum age at which girls should be allowed upon the ward.

the world outside the hospital until the age they can take up nurse training proper."

This condemnation of cadet schemes might lead one to believe that some field investigation of their working had been made and that objective evidence of "damage" to the young persons had been recorded. Enquiry revealed that no such evidence existed; the conclusion was the opinion of the committee, who were "100% against cadet schemes on various grounds arising out of their individual experiences." These refer to the abuse of these schemes in many parts of the country, reinforced by the story of a cadet who was allowed to stitch up after a post mortem. Our own researches cannot produce anything to match this grisly example, but we found many cadets happily doing work considered unsuitable by the Ministry of Health and contrary to the regulations set out in their circulars; we found, however, no evidence to suggest that the cadets objected to this work, nor that they were in any way "damaged" by it. The report in question does not mention some of the no less terrifying experiences of the direct entrants to nursing at the age of 18 or thereabouts; there is no reason why it should, but all must have heard of the girl who entered hospital straight from school and while waiting to start in the preliminary training school actually helped to lay out a deceased patient. These anecdotes are condemnations neither of cadet schemes nor of preliminary training schools; they are illustrations of either gross thoughtlessness on the part of older nurses or evidence of the extreme pressure under which some hospitals are obliged to work. It is to throw away the baby with the bath water to condemn cadet schemes for such shortcomings of human institutions; there are plenty of reasons for dissatisfaction with both cadet schemes and the training of student nurses for state registration and our present report draws attention to some of them. But the situation as we see it demands the skill of the physician rather than of the surgeon; our task is to improve these weaker limbs of the hospital organism by sympathetic and intelligent therapy rather than to lop them off in the hope that it will learn to crawl forward without their slender but vital support.

Field of enquiry

There were 27 hospitals in the Manchester Region that, up to the end of 1958, had started cadet schemes. From one of these only did we find it impossible to get the statistical information that we needed, although this is not to suggest that accurate data were always readily available elsewhere. There had been, in the 26 hospitals that had reasonably reliable records, 2,244 cadet entries, and of these 683 had abandoned their training before entering upon their course for state registration. Some of the girls still in the schemes when we finished our enquiries might be found to have given up before reaching their preliminary training schools, but an estimate showed that they would not be so many as seriously to affect our general numerical conclusions.

About 460 cadets volunteered information about their reasons for joining the schemes and their experiences within them; of these about 300 gave elaborate written details of what they actually did on certain days nominated by the research worker particularly interested in these schemes; and they also described their work at the colleges for further education at which they made part-time attendance. A member of the research team (the mother of two girls at the University) engaged 170 cadets in free interviews; she also kept in touch, every month or so, with 24 cadets as they passed through the schemes at their two hospitals. About a hundred qualified nurses who had started as hospital cadets also described their experiences and all the matrons devoted at least one interview to the revelation of their impressions; about fifty other persons, including hospital secretaries, sister-tutors, heads of hospital departments to whom cadets had been allocated, youth employment officers and teachers at Colleges of Further Education were also sources of evidence and opinion. Some of these interviews were the actual selection committees at which hospital matrons were meeting the potential cadets for the first time, and deciding whether or not to admit them to their hospital schemes.

Cadet wastage and size of entry

Interviews with the cadets soon revealed among many of them a sense of not being more than the smallest of very small fry at the hospital in which they spent their time. It was not that the girls felt humiliated or put upon; it was the emptiness of feeling ignored, or the embarrassment of seeming in the way of busy and important people that made them unhappy. They gave two main reasons for this; either the hospitals were too big for the individual cadets to identify themselves

with the tasks they were set on to do, feeling, for example, that they were transferred from one point to another more or less at random; or else there were too few cadets in any particular hospital to give each of them that sense of mutual support and encouragement also essential within the sets of student nurses undergoing their later training for state registration. The girls often spoke with great feeling of their apparent lack of importance in the eyes of others. Even their uniforms seemed to them designed to set them apart, and their ill-fitting fashionlessness a disfigurement of their juvenile pride.

The distribution of cadet wastage by the average sizes of the annual entry into the scheme is therefore given in Table 15; the classification is admittedly rough-and-ready, but this does not detract from the significance of the results.

Table 15

showing, for 26 Manchester Region hospitals, wastage of nursing cadets by size of annual entry into training scheme, for years 1950–1958.

Mean annual entry	Number of hospitals	Total entry	Total wastage	Percentage loss
Above 24	5	852	301	35·2
19–24	5	577	194	33·6
13–18	5	447	103	23·0
7–12	5	276	54	19·6
1– 6	6	92	31	33·7
All	26	2244	683	30·4

NOTE.—Not all hospitals had had schemes since 1950; the mean duration of schemes up to the end of 1958 was just under six years.

These figures demonstrate that wastage from the schemes is significantly higher than average both in the 10 hospitals that are big enough to take in 19 or more student nurses a year and also in the six hospitals that take in six or fewer. This table thus confirms the subjective opinions volunteered by the cadets themselves and supports the two conclusions of our researches into the problems of other young nurses; namely, that the large hospital tends to produce a sense of isolation or unintelligibility in the work situation; and that the group of girls of the

same age and standing in the hospital may provide its members with a necessary emotional support. The table is therefore interesting in that it gives some indication of what can be achieved by optimising these two factors within the social organisation of the hospital. In the 16 hospitals that have the high wastage rates the average overall loss is 34·6%; in the other 10 it is 21·7%. The difference is very highly significant, and taken with the views expressed by the girls is an indication of what can be done by devoting attention to the relations between the girls themselves and those who are charged with their training and supervision. If it could be contrived that the wastage rate in the 16 could be brought down to that of the 10, there would have remained, since the schemes began, nearly two hundred girls more to enter the preliminary training schools; this is about 9% of the total entry, by no means a marginal consideration.

Voluntary and other wastage

In examining the reasons for student nurses to give up their training we discriminated between two classes:

(*a*) those who withdrew voluntarily; and
(*b*) those who left for all other reasons, including marriage, ill-health and rejection by the hospital as unsatisfactory.

We are able to analyse, from the records of 22 hospitals, the ostensible reasons for 578 cadets giving up their training before entering the preliminary training school. The results are shown in Table 16.

Table 16

showing, for 578 cadets in 22 hospitals, who left before entering the preliminary training school, percentages giving particular reasons for doing so.

(i) To take other employment	14%
(ii) For family reasons	13·5%
(iii) For undisclosed reasons	17%
(iv) Rejected by hospital as unsuitable	24%
(v) On grounds of ill-health	14%
(vi) To be married	4%
(vii) To transfer to other hospitals	13·5%

Since from Table 15 we may take the mean overall wastage rate in cadet schemes as 30% of all entrants, and from (i), (ii) and (iii) above we

note that 44·5% of all leavers appear to do so of their own volition, it follows that about 14% of all entrants into the cadet scheme eventually decide that they would prefer to be doing something else. This is not very high; it certainly gives no reason for imagining, much less for publicly stating, that hospital cadet schemes attract a froth of light-headed girls whose thoughts of a professional career have been coloured by television programmes and other romantic improbabilities. Indeed, we found that one-third of all entrants from whom we secured personal information, or 154 out of 463, had a close relative who was already a nurse, and would, on that account, be informed on the rigours of hospital life. What is more, this figure of 14% must contain a significant number of those shown by Table 15 to be affected by size and other group considerations. Further examination of the statistics suggests that, of the 14% of total entrants who leave the cadet schemes of their own volition, about a half do so from feelings of alienation which might well have been prevented by more attention to the progress and problems of the girls. It is also evident that such attention would have helped some of the 140 cadets who were rejected by the hospitals as unsuitable to enter the nursing profession; there is plenty of evidence to suggest that, when it comes to unsatisfactory behaviour among hospital cadets, the social situation is no less to blame than is the delinquent. The devil still finds work for idle fingers, even among girls hoping to train as nurses.

Length of stay within the scheme

It is well known that there is a high wastage of student nurses in the first few months upon the wards, and considerable evidence to suggest that the first spell of night duty, in some hospitals, exacts a heavy toll. The wastage patterns of the hospital cadets over the duration of the scheme is thus of comparative interest. Since they may enter the scheme at any age from 15 to 17½, any conclusion must be accepted with caution, as we are not comparing like with like; the reasons for a 15-year-old girl wishing to leave after three months may be very different from those a 17-year-old also about to withdraw after the same trial period. Moreover, some girls who enter the cadet scheme at 17, with but one year to serve before entering the preliminary training school, may well survive this one year and succeed in getting there, whereas had they entered at 16 they might not have done so, because, for some reason or another, they might have left the scheme during the extra year which they would need to spend in it. In other words, some girls who, had they entered the scheme sooner, would have added to the numbers of leavers

after the longer periods of stay, survive to enter the preliminary training scheme and make no contribution to the wastage figures at all. About 53% of girls enter before their 16th birthday, 30% between their 16th and 17th and the remainder after their 17th birthday. These are complicating effects. But the broad figures are interesting. Of 532 leavers whose recorded dates of entering and leaving could be depended upon, the distribution of length of stay as cadets is given in Table 17.

Table 17

showing, of 532 leavers from 22 cadet schemes, numbers who remained various periods before leaving.

Length of stay	Number of leavers
Up to 3 months	101
3–12 „	251
12–24 „	164
Above 24 „	16

Remembering that the total numbers "at risk" in the shorter periods are greater than those in the longer, it is clear from this table that the wastage rate is fairly uniform over the period that the scheme is designed to cover. There may be few leavers after 24 months, but most girls who stay that long have their foot on the threshold of the preliminary training school, and, it may be assumed, will successfully cross it.

There is no sudden loss, as there is among the student nurses after the first three months; wastage is more uniform, and suggests a distribution over time of causes very different from those which overset the student nurses immediately they move to the wards. Indeed, a more careful analysis of the figures suggests that the highest wastage of cadets would actually come during the second year spent in the scheme, were it that sufficient girls had to spend that length of time before reaching the preliminary training school. This suggests that the girls may be reacting to the boredom, or lack of interest, that they report when interviewed.

The interview programme

The most frequent comment volunteered by the girls, whether among the 170 who were personally interviewed or among the 463 who returned questionnaires, was of the apparent lack of plan or sequence in their work; this might well have been the indirect expression of a

forbidden opinion, namely, that they should have been allowed a closer contact with the patients. Even although the figures of this chapter suggest that only about 30% of the cadets fail to complete their course for any reason whatever, and that only 14% withdraw of their own volition, there is little doubt that, among the majority of cadets, there is a strong impression that the scheme is no more than a makeshift. The manifest lack of sequence in the programme; the uncertainty about the next tour of duty—where it will be and what it will mean; the lack of continuous contact with any senior person in the hospital able to offer advice or even protection; the suspicion that many of the tasks given to the girls are hurriedly vamped up by the person who, for the moment, happens to have them thrust into her hands; the lack of meaning that so many of these irksome chores have for the girl whose heart is with the patients on the wards; all of these come out with eloquent and appealing frankness. There was for all the cadets a clear hierarchy among the different jobs at which they were to occupy their time; at the centre of their imaginative world was the bed, like the high altar of the inner temple, surrounded by the ministrating surgeons and their attendant priestesses, the sister and the nurses; next in the hierarchy came those departments of the hospital visited by the patients, and presided over by priests of an equivalent or only slightly inferior rank, like outpatients and theatre, or even radiography. Descending from these altitudes were direct services like the pathological laboratory and the diet kitchen, down through the medical records section and the sewing room, to that very abyss of degradation and futility, doing odd jobs about the nurses' home. Insofar as a cadet moves up this hierarchy she is encouraged and rewarded; a movement downwards is inevitably depressing, and the unexpected fortunes of this game of snakes and ladders show clearly in their interviews.

There might be advantage in thinking through the programme of the cadets so that they move steadily towards their central altar. Certainly the scheme that appealed to us most, where each of the 26 girls spoke with shining enthusiasm of her work and worshipped the matron who presided over their destinies, was designed around such a programme. From time to time the girls were encouraged with a taste of real work: feeding premature babies with a tube as they came out of incubators: helping to lift patients back into bed as they returned from the theatre: or remaining with the patients until they came round after the anæsthetic. Such experience demands, of course, the sensitive and intelligent supervision that many overworked matrons and sisters are unable, or

believe themselves to be unable, to afford. However this may be, the cadets were merely repeating to us what we had already perceived among the student nurses three years their senior: that the problem of a girl's integration into the hospital is largely one of her superior's perception or misperception of the needs she has to satisfy and the resources she has to offer.

We do not attempt to classify the following comments; they seem to us to illustrate the general thesis, namely that it is not the quality of the cadets that is lacking, but the conviction, among both themselves and their superiors, that they are really wanted:

"We generally just run around; sometimes we run nowhere special"; "nothing but odd jobs to think up; I'd never come into this again"; "no one gives me proper instructions; I've learned how to find something to do"; "here you are treated by everybody like a child"; "most departments are just boring; you get fed up and want to leave before you have a chance to see what the wards are like"; "the only thing I ever learned was what rubbish 'Emergency, Ward 10' is"; "you need patience here; you get told off by everybody"; "we ought to go on the wards earlier; if you're afraid of blood at 16 you'll be afraid of it at 60, and you ought to find out things like this as soon as you can. It would be a waste of money to leave it until after P.T.S."; "I did a few things on the ward that the nurses have no time for, and this made me stick the other side." (The cadet is referring to her work in other departments of the hospital.)

The extent to which the cadets would recommend their friends to join the scheme gives, perhaps, the most telling view of the conflict between their eagerness to become nurses, on the one hand, and their frustration by irrelevant tedium, on the other. Four hundred and sixty-three cadets replied to the question: "If you had a close friend, would you recomment her to join the scheme?"; of these

(*a*) 216 replied "Yes, without reservation";

(*b*) 130 replied "Yes, but with reservations"; the most important of these was the recommendation not to start before 16 years of age, and to spend one year in outside work.

(*c*) 75 others replied as in (*b*) but at 17 years of age and with two previous years of work;

(*d*) 42 alone replied that they would advise their friends not to enter the scheme at all; this is about 9% only.

The cadets' contribution

Hospital cadet schemes are a valuable source of recruits; of a random sample of 280 staff nurses and sisters seen in eight hospitals during 1960, 33 had started as cadets. Once they have survived the scheme and passed through the preliminary training school their wastage is significantly less than that of the girls who enter their nurse training directly at 18, although it must not be forgotten that the cadet who reaches that school has already been filtered by the scheme itself. Yet in the 26 hospitals with cadet schemes the loss during 1958 of student nurses who had not been cadets was about 21%; 632 student nurses entered the schools in that year, 136 already in the hospital left before qualifying. The corresponding figures of wastage of the ex-cadets during the same year were 25 out of 192, or about 13%. These are significantly different proportions; over five whole years, of the 708 cadets who had passed through the training school, only 170 had given up their training; of the same number of direct entrants the wastage would have been nearly 270. Presumably, moreover, it is less inconvenient for the hospitals to lose cadets than to lose student nurses to whom ward duties have been allocated and whose vacant places need to be filled.

Yet the situation could be a great deal better; somebody in the hospital, either the matron, one of her deputies, or the sister-tutor should have as one of her more important duties the general oversight of the cadet scheme. There are two great needs: the first is honestly to assure the cadets that they are wanted; the best way to do this is to set them on to a programme, which can be anticipated, of difficult and challenging tasks, and to ensure that somebody accessible to them is responsible for teaching them how to do these tasks. The second need is to hold before them, and at not too great a distance, the prospect of what they come into the hospital to do, namely, to help patients. It would restore our faith in teenagers to observe the response.

CHAPTER 6

THE DEVELOPMENT OF ATTITUDE SURVEYS

IN PREVIOUS chapters we have described the analysis of certain hospital statistics that throw a little light upon the sickness and wastage of student nurses; and we have referred to the attempts that were made by the research team to analyse the work patterns of the ward sisters. It was, of course, soon apparent that the recording and analysis of the observable behaviour of ward staffs gave only part of the picture; what the girls felt and believed were no less important than what they could, from time to time, be observed to do. We describe in the following chapters some of the methods used to record feelings and attitudes; and we discuss some of the results they produced. It has been suggested to us that we might have given inordinate attention to the analysis of these intangibles; we may be allowed, perhaps, to observe that, less than a century ago, the practice of medicine was transformed by the recognition of what was then invisible even to the sharpest eye, namely, the germ. A study of human feelings in the context of medical practice may, in due course, produce changes no less impressive.

A search for staffing standards

Our first hospital study, at a level deeper than statistical sampling, was undertaken at the invitation of the management committee of a medium-sized hospital, and began as an attempt to understand the problems of staffing its wards. The hospital was known to have a student nurse wastage rate well above the national average, and the problem of providing adequate nursing staff had long been a matter for concern to the lay and nursing administration. It was, all the same, of interest that, although ward staffing ratios already sanctioned by the authorities could not be maintained, the committee perceived their main problem as that of establishing what the "proper" staffing ratios ought to be. No doubt the clear specification of a target is an aid to

reaching it, but at the present state of our knowledge of ward practice it is a forlorn desire to seek for optimum standards. Nevertheless, using methods of job analysis and activity sampling, we were able to show that staffing levels varied significantly not only between comparable wards but also from day to day within particular wards. The load of nursing tasks was unequally distributed between the wards, and the range of administrative tasks, substantial in all cases, varied considerably between one ward sister and another; there were also marked differences in procedures between otherwise comparable wards, and these demanded differing staff complements if they were to be continuously employed.

It was not difficult to show that the stability of the ward team was threatened by fluctuations in staffing levels and by the constant movement of many junior staff at the demand of their training programmes; it was no more difficult to suggest how these variations could be mitigated, nevertheless, by pre-planning in matron's office, in consultation with the principal tutor, and how method study could have suggested a more logical distribution of the work load throughout the different wards and a reduction of the overall burden of administrative and clerical tasks. It would also have been possible, by agreement between the principal tutor and the ward sisters, to establish standard procedures covering all wards, and yet to retain for those in charge of them a degree of independence and discretion in dealing with the problems peculiar to their own wards.

Although objective studies of this nature might eventually suggest some level of ward staffing that balanced the service offered against the effort expended, they could do little or nothing to illuminate the causes of student nurse wastage; this lay at the roots of the shortage of both untrained and trained staff and, thus, of ward staffing problems. In our observations we had many opportunities of talking to the nursing and other hospital staffs, and were always impressed with the volume of spontaneous and unsolicited expression of their attitudes to other people and to their conditions, both in the hospital as a whole and on the ward in particular; these comments strongly suggested several causes of dissatisfaction, and consequently of failure of many student nurses to adjust themselves to their work and training. Such failure often led to their leaving the hospital rather than to achieving the high purpose which had been their inspiration in the beginning, and we decided that it would be useful to record and classify the expressions of views with which that failure seemed to be associated.

The first attitude survey

The step to making a systematic study of attitudes was both natural and easy; our first sample was representative of the nursing staff at the same hospital. It was chosen in an attempt to discover at first hand the attitudes to their work of all grades of nursing staff in the hospital and, as they perceived them, to the physical and psychological conditions affecting its performance. The objective and disinterested recording of subjective and personal opinions has been developed in industry by psychologists in order to reveal to higher management impressions about the environment and personal factors in work situations likely to affect performance, about how these factors interact with one another and about how they might possibly be changed or modified to produce "desirable" changes in behaviour. (In our hospital studies we had no thoughts about such manipulation.)

The methods most frequently used in studying the attitudes of employees have consisted in:

(*a*) questions, apparently admitting of unambiguous replies, put either directly or by means of written questionnaires, about the way employees think, feel and are disposed to respond towards their work conditions; the results are classified under the headings already built into the enquiry; and

(*b*) non-directive interviews in which the interviewer merely records whatever opinions, feeling and wants relative to the work situation are spontaneously expressed by the employees who volunteer both to attend and to disclose their consciousness.

It is important to remember that all questionnaires, whether verbal or written, must pose specific questions, and that their compilers must assume, perhaps too readily, not only that their questions are relevant but also that they are comprehensive, and that there exist answers to them which can be given explicitly. We preferred to use the non-directive interview; in this the interviewer does not ask questions, except to encourage the interviewee, when necessary, to explain or to amplify something which has already been said spontaneously about a topic. The assumption is made that the points raised spontaneously by the interviewee are for him or her those features of the work situation which, at that particular time, really matter. If large numbers of persons sharing the same experience volunteer similar views about the same aspects of them, it is reasonable to suggest that these particular matters

are of some importance to them. A party of tourists who have just spent the night in a flea-ridden hotel are unlikely to open the morning's conversation with the representative of their travel agency by airing their views upon, say, the cultural level of the local museums.

The success of the non-directive interview depends, of course, upon the voluntary co-operation of all grades of staff and upon a guarantee that the information offered is both confidential and anonymous, if so desired. Adequate attention was given to these points in our present study. A letter written by the head of the research team to individual members of the senior and junior nursing staffs explained the general purpose of the study, and invited the recipient to talk in confidence and anonymity to the team about any hospital and nursing matter which seemed to him or her important, interesting or a substantial source of difficulty or satisfaction. This letter also gave the names of the interviewers, who were already known to many of the staff by sight, from informal conversations in the dining rooms and social contacts in the lounges; it also explained that, on the initiative of the staff, appointments could be arranged with a resident member of the team.

It must, however, be recognised that, in spite of these preparations, this first survey could hardly pretend to be as comprehensive and unbiassed as others undertaken later in the research programme, since it followed studies made throughout the hospital into questions of ward staffing. It was already known to all the nurses who attended the interviews that the team was particularly interested in questions of training and recruitment, and for this reason the remarks volunteered tended to keep closely to these matters. For all that, the picture of the nurse's life and problems obtained by interviewing nearly 70 members of the staff, from the matron to the first year student nurses, seems both clear and intelligible; it certainly suggests in what directions there is room for administrative improvement. The results of these interviews, which lasted on average about half an hour and which raised on average about six main points of interest, have been classified by the subjects introduced, and not by any scheme imposed by the research team as representing issues considered by them to be relevant. They are described in the next paragraphs, which are not in any order of importance, measured, for example, by the number of comments passed under any particular heading. In the next chapter, however, we touch upon the validity of quantitative estimates of opinions and attitudes as indicators of problems calling for attention.

Nurses' attitude towards pay

The matron and a senior sister volunteered the opinion that the pay of student and trained nurses was the main source of discouragement to the recruitment and retention of nursing staff. In their view, an all-round improvement would solve the problems of student nurse wastage and consequent shortage of trained nursing staff; more people would be recruited and more would complete their training. Another sister suggested that young girls were "surely under hypnosis when they agreed to accept such a small training allowance.... All this business of working for little and setting an example is out of date. . . . Nurses at all levels should be paid according to the responsibility and social value of their work." (She was not, under the conditions of free interviewing, invited to suggest how these were to be measured.) On the other hand, a junior sister who, as subsequent enquiries showed, had more insight than her seniors, insisted strongly that pay was not the main source of dissatisfaction leading to loss of student nurses. It was, in her view, much less important in the hospital than "the unfriendly relationships which existed between the senior sisters and their subordinates."

One or two student nurses feelingly asserted that nursing today was a "vocation only up to a point". The rate for the job should be in keeping with the degrees of responsibility involved in it. They did not see why conditions of pay should not be as good as they were in industry. "What gets us down", said one girl, who claimed to be speaking for her colleagues, "is that we cannot buy the things our friends in other jobs have." It was to them unjust, when the pay was so low, that they should be asked, as they frequently were, to work overtime without compensation either in extra off-duty time or in money.

On the other hand, just as many student nurses said that they had no complaint to make about their pay: "we knew when we came in that the pay would be low." More than half did not mention the question of pay at all, whether to express dissatisfaction or not. One had to remember that an expensive training was being given and that when in residence the students had amenities such as separate bedrooms and attendance that they might not get at home. Dissatisfaction with pay should not, in our view, be regarded as one of the main reasons why so many student nurses left before completing their training.

Food and residence

The food served in the sisters' and student nurses' dining rooms gave little cause for complaint. This happy state of affairs had followed a

recent kitchen reorganisation; several student nurses thought that meals were "better than they used to be". But it was still said that good food was sometimes "spoiled in the cooking"; the persisting bad feature, however, was the slowness of the service of meals, especially at lunch time, which, in their view, left nurses with little or no time to relax before returning to duty. The second tea served to nurses on night-duty was described as "terrible". (The interviewers who had on occasion joined the nurses in this meal agreed.)

The comments made by sisters and staff nurses were somewhat general in nature. Some thought "that student nurses to-day probably did not have very much fun as residents", and that perhaps the rather dull social life of the nurses' home explained why some of them withdrew from training. (We did not seek objectively to establish what these women, some no longer young, meant by "very much fun", but there was, at least on a verbal level, nothing to suggest that, in these affairs, standards vary much from one generation to another.) The living accommodation and conditions provided by many other hospitals for nurses in training was, in the view of the senior staff, "shocking" and "it was not to be wondered at that student nurses left in large numbers." More specific criticisms were made by students in residence. The physical conditions in the home were poor; the building itself was old and "overrun by cockroaches"; it was situated on a main road and, consequently, very noisy. "Promises of improvement had often been given but nothing had been done." It was said by one or two that student nurses had left the hospital because of this. Was it not reasonable to believe that the hospital would attract more nurses and keep them longer if the living conditions of residents were improved? Would it not be possible to estimate the cost of losing nurses and set this off against the cost of improving the home?

But, to the majority of resident nurses, physical conditions were less important sources of dissatisfaction than the unsympathetic and domineering nature of the supervision exercised by the home sisters. The resident student nurses described themselves as not being "treated in the home like responsible adult people". "We are expected to assume heavy responsibilities on duty; in the home we are credited with neither common sense nor self-respect." The administrative and nursing staff were seen as altogether too old-fashioned and restrictive in their attitude to young people. The home sisters, in particular, "seemed to have a grudge against human beings in general". It is true that young girls away from home need to be looked after, that the hospital is *in loco*

parentis, and that the anxieties and pressures of ward life may, from time to time, seek release through activities not regarded as entirely ladylike. It is, however, questionable whether, in their struggles against the Prince of Darkness, the student nurses were much aided by the "petty and humiliating restrictions" of which so many complained. "Even the privacy of our bedrooms and lockers is not respected by members of the staff who have master-keys."

Hours and off-duty time

The matron and several of her administrative sisters thought that, although the facts were made clear in a selection interview, student nurses on entry did not realise that, in addition to their ward duties, much free time would have to be devoted to study and that this would inevitably restrict their social activities. The hours of work, at that time a minimum of 48 per week, were too many for such an exacting job as nursing; they have since been reduced. The existing split duty system made it difficult for the student nurses to meet friends who, unlike themselves, were free at week-ends. Some nurses said that, in any case, they were too tired to do anything but spend their off-duty time resting in bed.

The matron said she was planning a shift system to improve on the split duties. Senior and junior sisters believed that a workable shift system would both act as a stimulus to recruitment, and help to retain those student nurses already on the hospital books. In their view, however, the matron's scheme would never work, for she had "not consulted any of the sisters, neither those who had had experience of working a shift system, nor even the sisters on whose wards a pilot study was to be attempted". . . . The senior sisters had prejudged the issue; "there would be chaos". . . . The team were aware that well-intentioned efforts were made to plan off-duty times fair to everyone involved, but it was difficult, with the traditions of seniority long accepted at the hospital, to give student nurses time off at the week-end. It was possible that dissatisfaction with off-duty time was a direct source of student nurse wastage, but it might also have been a manifestation of resentment against the senior staff, who were thought generally to be shown favour in these inflammatory matters. Similar opinions were expressed by staff nurses, but they did not see any valid reason why time off at week-ends should not be given to all grades of nursing staff in turn, and not only to sisters. Staff nurses sympathised with students, who were apparently expected to be "married to the profession"; it was

accepted that "they were forced to cancel dates with sweethearts or other promising friends." The loss felt by the girls was not just that of a particular date foregone; they sensed the loss of goodwill involved in breaking appointments. The student nurses themselves were particularly unhappy that the off-duty roster was often changed "at the last minute without warning", that it was not published long enough in advance "to enable student nurses satisfactorily to arrange their private lives", and that "sisters monopolised all the Saturdays and Sundays." Off-duty time should, in their view, be allocated so that such inconveniences as being deprived of the company of one's boy friend "for a whole fortnight" might be avoided. The introduction of a shift system, already the subject of hospital rumour, was heralded as a possible solution to some of these problems.

Student nurses had few complaints to make about the actual number of hours worked, although for one male student the working day was "tiring even for a man in training"; for one girl student it was "fatiguing but just sufferable".

Night duty

Night duty, in the opinion of the matron, involved "problems of adjustment which were too difficult for some student nurses"; this, in her view, played an inevitable part in wastage. The spell of night duty naturally engendered fatigue which was not dispelled by rest during the day, and eventually created "a feeling of being everlastingly tired." It did not occur to the matron that it might be a duty of the hospital to help the student nurses to solve these "problems of adjustment". (It was frequently argued that, as in the so-called process of natural selection that lies behind the course of evolution, the progress of the individual nurse should constantly be checked by severe challenges. Only those girls able to overcome them by their own efforts were fitted, in the view of many matrons and tutors, to qualify as nurses. The very great differences in wastage rates between hospitals seems to destroy this argument; if care is taken over the girl's emotional adjustment she will probably survive the most exacting clinical ordeal.)

Some sisters and staff nurses said that students were put on night duty too soon after leaving the P.T.S. Night duty, in their view, could be very frightening for young girls who had little or no experience on day duty of dealing with patients. Some were said to be terrified of being left alone, particularly on acute medical wards. Emergencies could not always be foreseen by sister; she could not always warn her charges of

what to expect nor could she always be present when the unexpected happened. Some girls were re-assured when told they could contact sister by telephone should an emergency develop. Unfortunately, some sisters were seen as discouraging the use of the telephone for this purpose. Some students "were known to have given up nursing as a result of their first spell of night duty"; "They were afraid of sister." They knew that if they made a mistake "they would get no sympathetic consideration." Other sisters, however, did not think that young nurses discontinued their training because of night duty, although "some students are capable of dealing with any emergency right from the start and others are just stupidly helpless." "A girl who could not quickly adjust herself to night duty would never become a good nurse and, therefore, would not be a loss to the profession if she did leave. The sooner she ceased to be an embarrassment the better."

Night duty was not mentioned as a problem by all student nurses. On the contrary, several observed that it provided them with welcome opportunities of accepting greater responsibilities and "acquiring wider experience than was possible on day duty." There was "a more friendly atmosphere on nights, and it was possible to learn a lot especially if you had a helpful senior in charge." Nevertheless, some students had not liked their first spell of night duty, and spoke of it with unconcealed dissatisfaction; some recalled by name friends who had left the hospital for this reason. Other students stated emphatically their belief that they were given unreasonable responsibility when they first went on night duty; their experience on day duty had not prepared them for it; they were not given any helpful instruction. They had "in theory, only to ask if they didn't know, but in fact *they* were unapproachable; one could not ask *them* anything." The fear of making a mistake and of "letting the patient down" was said to be perpetually with them, and was not relieved by the belief that if a nurse did make a mistake she would get no sympathy from the sister. Other disadvantages of night duty said to be experienced by student nurses were the difficulty of study, particularly when preparing for examinations, and the further restrictions placed upon social and recreational activities; "school friends and boy friends were virtually lost." Moreover, the spell of night duty was said sometimes to be extended beyond the official duration of twelve weeks. One student had served eighteen weeks, another twenty-two weeks; a third had apparently established a record spell of seven months. She said, "I dared not complain, or I'd have got more of it; some matrons have no feelings."

Training

The matron and members of her administrative staff saw some weakness in the current system of training; "it was too intensive and led to mental indigestion." They believed that some students who began their training with enthusiasm were later proved to be intellectually incapable of absorbing "the theoretical aspects of the syllabus", and to be unsuitable for general training. Other students were said to be reluctant about facing the demands which study made upon their leisure time. Liaison between the tutorial and ward staffs was said by the staff of the training school to be poor; practical instruction was not given on the wards, nor were the students brought into contact with the patients when being taught something of the diagnosis and treatment of ailments. (This seemed to be a schism not beyond the power of the Hospital Management Committee to bridge, but nothing systematic was ever attempted.)

Preliminary training school to ward

Sisters and staff nurses knew that their methods were not always those given in the school; what was demonstrated in the school could not, it was said, always be performed on the ward. For example, in the training school three nurses co-operated in doing dressings; three nurses were never available on the ward. Some wards were less well equipped than the training school, where "there were altogether too many frills". Nevertheless, it was asserted with confidence that girls who really wanted to be nurses would not find such difficulties insurmountable, although when the senior staff themselves began to dwell upon the obstructions to training, they perceived the need for closer co-operation between tutors and ward sisters. "Dealing with dummies in P.T.S. was very different from dealing with sick people in bed on the wards." "The methods used by some sisters were obsolete and ought to be discarded." In spite of this, tutors, it was said, were not encouraged to visit the wards, nor was the Procedures Committee regarded as a particularly effective instrument.

The communication difficulties perceived by the sisters and staff nurses were also reported by many student nurses. They observed many differences between what they had been taught in P.T.S. and what the sisters, themselves trained in different hospitals, expected them to do. Much of their preliminary training in practical nursing seemed to them "a waste of time" . . . "a dead loss" since the methods taught differed so much from those in use on the ward. One feels, however, that poor

relations exaggerated the problems of accommodating to these differences. The "vast amount of theory" presented in the training school and in subsequent "blocks" also failed to illuminate any significant ward experience. This was confusing to young nurses who felt themselves to be, in general, "full of enthusiasm at the end of their preliminary training, but soon disillusioned and discouraged by the realities of the ward." They suggested that there was need for detailed instruction on the ward under supervision of the principal tutor, and generally for a closer link in the students' minds between school theory and ward practice. There were in the present situation so many sources of misunderstanding, discouragement and disillusion to young nurses that, in the simple words of one sister about to leave to get married, "it was difficult to understand why any of them put up with it."

Introduction to the ward

"The realities of nursing sick people on the ward shocked many young girls." This was the opinion of several sisters and staff nurses. They also perceived some students arriving in the ward from the training school with the idea that "they were going to have a nice time" and with a completely unrealistic impression of their new life, derived from films, radio, television and propaganda literature on nursing, including the brochure issued by the hospital. The senior staff felt that the school "did nothing to dispel this over-glamourised picture". Some girls were considered too young and naïve when they came on the ward. . . . "They were emotionally off the beam." Our own observations had shown us that, in the hurry and excitement of the ward, some sisters were sometimes impatient of the inexperience and blunders of their young charges. Probably some of these very blunders stemmed from "fear of the sister who would give them no consideration if they made a mistake." The induction of the student into ward work at all levels, psychological, social and clinical, would, in our view, adequately repay detailed consideration and sympathetic experiment. If, for example, she could be given practical experience on the ward while still under the interested and discriminating tutelage of the training school, "she would not be such a drag upon the sisters", as she now was said to be.

Student nurses were unanimous in volunteering the view that moving from the school to the ward was fraught with difficulties. They perceived their inexperience; they sensed the weight of their responsibilities; they minimised neither. What really shocked and confounded them was that they sensed so little understanding; they felt offered so little

help; that they gained confidence neither in themselves nor in their seniors. The only sympathy and support they recognised was from their struggling colleagues in the same training school set; some reported an anxiety to learn, but shrank before the sisters, as an absconding prisoner avoids the alerted sentry. Some sisters were said not to treat their juniors like human beings—"they become emotional and shouted orders which I was expected to understand without explanation, and to carry out without question." Most students learned very little except caution on their first ward . . . "somehow, one felt unwanted" . . . "things were incomprehensible" . . . "sister had no time to be bothered with you, so you just groped around" . . . "you just had to stick it and find out all you could; nobody told you anything". . . . Some students failed to realise how much study they had to do after leaving the training school: five out of 10 members of one set were said to have left immediately after going on the ward; they had been seen by the survivors as unable to cope with study on top of their arduous work.

Instruction on the ward

Sisters interpreted the problems of the ward in their own way; some felt that, short of staff, they had little, if any, time to devote to student nurses. The sisters saw themselves as "battling against death"; they felt obliged themselves to do what was necessary to ensure that it was done not, indeed, quickly and efficiently, but at all. Supervisory and training duties were to them subordinate to such considerations. But, even if they could feel that there was the time, it would still be difficult, in their view, to carry out any systematic instruction because, although student nurses were supposed to remain on a ward for three months, they were, in fact, subjected to frequent and unexpected postings. Most sisters professed not to know why such changes were necessary; they were only aware of conditions making it impossible "to develop any team spirit on the ward." (As previously mentioned, some girls stayed, or said they stayed, on night duty for months together.)

Similar views about the difficulties of ward instruction were expressed by staff nurses; they agreed that student nurses were not always shown how to perform unfamiliar tasks on the ward, and that the jobs they were given to do were often far from interesting. The work of absent orderlies or cleaners, for example, necessarily fell upon the junior nurses. There was on some wards a concealed hostility between the senior and junior sisters, so that "the student nurses were left in a fog"; it was not surprising that they often behaved as if they had no idea of

what was happening on the ward. In the view of the staff nurses, the senior sister could find time, were she really so inclined, to instruct the students in her own peculiar methods; she could at least call her staff together for at least 10 minutes every day to give them a report, both useful and instructive, on the diagnosis, treatment and progress of the patients. This kind of conference could be expected to arouse the students' interest and, most important of all, give them the experience of active participation in deciding upon the work of the ward.

According to student nurses themselves, the sisters generally did not give them very much helpful instruction on the ward. Some sisters spent too much time "drinking tea in the duty room, not infrequently waited upon by a student nurse." The majority of sisters in the hospital did not seem to be interested in teaching their juniors, and were said to discourage questions. One sister replied to the query of a student in search of knowledge, "Don't you dare to ask me; you should have learned that in the P.T.S." There was "a state of indecision among student nurses" because sisters were "unapproachable and uncommunicative", particularly about the patients' conditions and treatment. "You don't have the same interest if you don't know what is wrong", and "You are more likely to make a mistake if you don't know the reason for the patient's treatment" are remarks which indicate the needs of student nurses. Some sisters thought that "making casual remarks to student nurses" or "just ordering them to do things" were adequate vehicles of clinical instruction. A few minutes before a student had attended for interview, the sister had said to her, "Don't let him (the patient) sit up", but why the patient should not be allowed to sit up was not explained; the student was quite unable to offer any satisfaction to the protesting patient. Some sisters were seen as unable to give orders with ordinary civility. One student, fresh from the training school had been told, "Go and clean the sluice"; she did not know where the sluice was, nor where to find the gear and materials with which to clean it. One or two sisters "literally screamed their orders at the nurses"; they were felt never to show the nurses how to do anything and rarely to give them help when they, in their ignorance, made mistakes. A few of the students thought that all hospital staff senior to them tended to regard student nurses as "skivvies" and to impose upon them as many as possible of the menial tasks of the ward, deliberately depriving them of any chance of helping the patients and of getting real nursing experience.

Inter-personal relations

These interviews soon taught the team that the basic problems of the ward were bound up with simple human relationships in the very special conditions of anxiety, uncertainty and authority common to most hospitals, and we close this chapter with one or two examples of what the interviews revealed of these complex and often distressing emotional conflicts.

Some sisters gave the impression they had often had to deal with student nurses who were not really interested in the patients, "especially if there was a doctor around". The students displayed to the sisters "a glamourised and romantic view of nursing", but were sadly let down when they discovered the illusory nature of both the glamour and romance; as the sisters remarked "There wasn't a doctor for every nurse." Sisters met with "sheer stupidity amongst nurses and lost their patience and sometimes their temper." Part of the trouble was that "young people of to-day had had too soft an upbringing; they were in need of more severe discipline." One or two older sisters seemed to have developed an austere outlook on life in general, and unfriendly attitudes towards young people in particular; they were seen as the authors, in that hospital, of many of the student nurses' problems. Nor were all of the younger sisters always more sympathetic; the censorious among them had been promoted when "too young and inexperienced"; some admitted to discouraging the students from asking questions and "to putting up a bluff to hide their own ignorance."

Student nurses in turn expressed dread about having to work on certain wards because of the "domineering and hostile attitudes" of the sisters. In the opinion of the team, such attitudes, more than any other factor, were responsible for wastage, particularly in the first year. Several potentially suitable girls were seen by their friends as having been "driven out of the profession" by sisters who had subjected them to petty persecutions, who had reprimanded them in the presence of the patients and who had denied them privileges which had been granted to others. "If a sister got her knife into a student the life of the nurse became a misery." The students felt defenceless against the criticism of a hostile sister; "one just has to put up with it or leave the hospital." One student interviewed had left her first hospital "because of the domineering attitude of a ward sister"; she had returned to nursing because she liked it, and was now determined to complete her training in spite of all the difficulties encountered on her second attempt. Several student nurses suggested that the attitudes of their sisters had changed

for the better since the research team had spent time on the wards, but this may have been no more than a friendly response to what was, for all of them, a singular experience—an opportunity to say what they pleased to a group of persons who seemed, in some respects, to enjoy the status of both matron and doctors.

We must repeat that this was a hospital with a serious staff wastage problem. The attitudes here recorded suggest little but unrelieved difficulties; in fact, when the same hospital was visited several years later its general tone had greatly improved, although the shortage of nurses was still acute. Nor is the hospital typical. The sisters, for example. at another now being studied by the team speak with unanimous affection of their matron; the staff as a whole are secure and their criticism is constructive. Following the attitude study, but without specific advice from the team, a number of improvements in the hospital organisation have come about almost spontaneously; an already healthy organism is capable of perceiving and correcting its own faults if the opportunity arises. At other hospitals the team has been deeply impressed with the cheerfulness and resource with which all grades of staff have put up with and even conquered difficulties of accommodation that first became subjects of justifiable complaint during the first World War. If any testimonial to the staff of British hospitals were needed it could be found, like the memorial to Sir Christopher Wren, in the buildings by which they are enveloped.

CHAPTER 7

LIVING AND LEARNING

THE ATTITUDE SURVEY described in the previous chapter arose, and was known throughout the hospital to have arisen, out of a search for the staffing levels thought to be desirable on its wards. This probably led the persons interviewed to offer an undue amount of comment upon this particular feature of hospital life. Those who conducted the survey, nevertheless, were impressed by the comment that was also volunteered upon other hospital affairs; they saw such surveys as instruments for studying the perceptions of hospital staffs as a whole. Since in the early studies of nurse wastage it had begun to appear that the adjustment of the student to her new way of life, including the development of her attitudes towards the patient, was significantly conditioned by her relations to others in the hospital, we felt that these surveys might possibly be developed as a means of determining what these relations might be and upon what they depended.

Our argument was as follows: both student nurse and patient are faced with considerable tasks of adjustment, the student nurse to a way of life, the patient to the path of recovery. It may strike some as novel to suggest that patient care is, for nurse and patient alike, essentially a learning process, something normally thought of in the remote and sheltered confines of a school classroom. But if a patient does not want to recover he can stop himself from doing so; the patient who is worried about domestic troubles cannot give his attention to getting better; with sufficient tutelage any of us can learn to be ill, and some family circles are full of sympathy and encouragement for the potential hypochondriac. Confidence in one's doctor is merely the self-understanding that he engenders, and those who are afraid or who do not wish to understand themselves spend their lives seeking the impossible, namely, the doctor who "understands" them. We have already suggested that student nurses who, whether through infelicitous

teaching or unconscious neglect, have difficulty in learning their tasks, show signs of undue stress and are frequently absent sick; ward sisters learn to adjust more readily to some hospitals than to others. But learning processes, at any level in this life, are more than obedience, however disciplined, however submissive, however unqualified, to instructions, however clear, however appropriate, however authoritative. Patients who feel what may seem an irrational desire to sit up in bed are not helped to adjust themselves to recovery by a peremptory instruction to lie still; nurses who are curious to know why there are marked differences between the procedures used on different wards lose confidence in themselves as well as in their seniors when explanations, even if not strictly logical, are refused. No learning, no adjustment, no progress occurs; there is merely an increase of anxiety, perhaps of frustration, in both nurse and patient alike. A fresh level of understanding is attained only when the subject can re-arrange, in the light of the new situation, what is already intelligible and therefore useful. One important element in this process is the opportunity to ask questions that will clear up doubts; since these doubts may be imperfectly known to the learner, they cannot be revealed even to himself, let alone to the teacher, without cross questioning, and this can sometimes threaten to become both unsympathetic and humiliating. Learning occurs most effectively when the doubts in the mind of the learner can be spontaneously voiced when they are to him most insistent. If the learner cannot ask questions or seek clarification when he stands in need of it, his learning process will be retarded, since new knowledge is most easily absorbed when there is an eagerness to use it. The difference between giving learners the opportunity to ask questions, on the one hand, and of denying these opportunities, on the other, is not merely the difference between making learning pleasant or making it laborious: it is the difference between learning and not learning. It is partly for this reason that popular attention is now focussed upon the doctor-patient relationship; doctors who withhold information or deny patients the opportunity to ask questions are not merely both making patients feel unsure of themselves and obscuring their own view of the patients' troubles; they are also actively impeding the learning processes that carry them towards recovery. In the same way, the student nurse who feels she is discouraged from seeking clarification of her instructions may sense that this opposes her adjustment to her new life, and, unable to voice her confusion, she may well protest by withdrawing from the hospital. It is not the humiliation of public rebuke for her mistakes but

the denial of intelligibility in her work that she so keenly feels, just as to the patient the real enemy is not physical pain but mental anxiety.

This may seem a subjective argument. We nevertheless felt that it would be worth testing. To do so would demand a method of measuring the extent to which those on the wards felt themselves free to ask questions about whatever they liked, or otherwise to communicate with those from whom they might be expected to learn. But before we could devise methods of measuring this perceived freedom of approach, we felt it necessary to classify hospital attitudes without disclosing that our primary interest was in the transparency of communication, particularly in situations of doubt. By conducting general attitude surveys we felt that we might detect specific opinions, beliefs, or prejudices that could eventually form the elements of a statistically significant enquiry. Our first task, therefore, was to gain experience in recording the flow of confidential opinions; in doing so over the course of three years, we have conducted general attitude surveys in six large general hospitals, and, parallel with these, specific studies of cadet schemes, ward sisters' opinions or aspects of organisation in another fifty or so. We can refer here to but a small fraction of our total results, and we have chosen to present these in a way that, we believe, illustrate our general thesis, namely, that since the hospital is, and must be by the nature of its task, an institution highly charged with anxiety, among the medical staff, among the senior nurses, among the students no less than among the patients, the outstanding social need of the hospital is the relief of anxiety. This demands enlightenment, understanding, significance, interpretation, meaning, intelligibility: all these depend upon the communication of what is relevant and this in turn depends upon human attitudes. We have tried, from the results of our surveys, to estimate what these may be and how far they differ between hospitals; we did not, of course, at any time try to influence either the views expressed or the choice of subjects about which they were volunteered. We admit that a limitation of the method is that stress tends to be laid on matters about which the staff, being no more than human, want action to be taken rather than upon those with which they are satisfied. We acknowledge this tendency towards painting a picture darker than the scene with a quotation from one of our own reports to a Hospital Management Committee:

> "Finally, as has been previously indicated, a number of nursing staff felt that this hospital 'was a happy hospital with a wide variety of patients.' 'Conditions have improved tremendously.' 'Pleased to have come into general nursing . . .

this is a very enjoyable hospital.' The great volume of unfavourable comments which are brought up in this type of survey are specific in nature—that is, they are not representative of an unfavourable attitude to the hospital as a whole. Many of those interviewed, if asked whether they enjoyed working at the hospital, would have replied in the affirmative."

Before briefly presenting our results we may say that, in every hospital, its inter-personal relations, measured by the number of comments spontaneously made by the staff about those with whom they lived and worked, occupied a place in the consciousness of those we interviewed more prominent than that of any other subject. Granted the importance of those relationships, therefore, our next task was to examine their nature.

Summary of results

Table 18 gives a classification of the comments, not distinguishing between favourable and critical, passed by the staffs of three of the general hospitals examined. These comments are classified according to the classes of staff who passed them, and the subjects about which they were volunteered.

In deciding upon the size of sample of staff to be invited for interview, the team aimed to see about one quarter of the resident medical staff, the whole of the administrative nursing staff, including the principal tutors, a third of the ward and departmental sisters, a quarter of the trained nurses, a fifth of the junior nurses and hospital cadets, a seventh of the ward orderlies, a tenth of the professional and technical staffs from the laboratories and X-ray department, and about one-twentieth of the domestic, maintenance, catering and similar staff. Individuals were invited, within these classes, at random; of over a thousand persons invited (some in hospitals other than those here described) only two or three declined to come, and these were all domestic and allied staff. Many more than this in other grades, although not being invited, nevertheless asked if they could be allowed to offer their views; nobody was refused. All who came for interview were given two or three days' notice, were assured that what they might have to say was private and confidential and were invited to bring with them their own list of any matters they might wish to raise, in case they might otherwise forget something. None of these seen objected to the interviewers making written notes of their comments.

The classification of what was said proved a considerable task. It was

Table 18

(i), (ii) and (iii), showing for three acute general hospitals, numbers of comments volunteered by different classes of staff and by type of comment.

(i)

Hospital Q

Staff Category	M.	A.N.	T.N.	U.N.	O.	P.T.A.	A.	Total
Number Interviewed	0	17	83	36	12	28	26	202
Topics	NUMBER OF COMMENTS							
Physical Conditions	0	13	64	59	20	33	28	217
Hours of Work	0	18	74	78	6	11	18	205
Staffing and Methods	0	17	87	19	13	18	23	177
Canteen and Food	0	6	68	47	10	21	2	154
Supplies and Equipment	0	5	49	20	11	7	21	113
Transport	0	0	0	0	0	0	0	0
Pay	0	2	3	3	8	1	0	17
Inter-personal Relations	0	20	257	110	10	120	23	540
Recruitment	0	0	0	0	0	0	0	0
Training	0	8	74	81	16	2	2	188
Social and Recreational	0	0	5	5	0	3	1	14
Promotion	0	0	0	0	0	0	0	0
Total	0	89	681	422	94	216	118	1,620
No. of Comments per Interviewee:	0	5·2	8·2	11·7	7·8	7·7	4·5	8·0

found that, on average, each person raised about seven topics; their interviews lasted between a quarter of an hour and an hour, with a fairly well marked mode of about half an hour. On the other hand, since the interviews made no attempt to draw their visitors out, except on topics already spontaneously raised, it may well be that between three and ten separate points of interest are the greatest number that most people can carry in their minds as topics to be freely introduced into a conversation, given no outside stimulus that might well tempt them to release more; this influence the team was careful to avoid. However this may be, the comments made by any individual were eventually recorded on one large punched card, and classified according to subject.

(ii)

Hospital R

Staff Category	M.	A.N.	T.N.	U.N.	O.	P.T.A.	A.	Total
Number Interviewed	5	13	67	50	22	25	6	188
Topics	NUMBER OF COMMENTS							
Physical Conditions	4	6	28	35	13	7	5	93
Hours of Work	0	8	57	67	12	18	5	167
Staffing and Methods	2	5	28	15	6	1	0	57
Canteen and Food	0	13	57	71	21	16	1	179
Supplies and Equipment	0	0	1	8	0	1	0	10
Transport	0	0	12	12	8	1	0	33
Pay	1	2	29	29	15	13	0	89
Inter-personal Relations	4	11	144	143	36	67	2	407
Recruitment	1	10	78	28	6	21	5	149
Training	3	17	80	65	18	28	2	213
Social and Recreational	0	0	28	34	7	9	1	79
Promotion	2	0	2	0	1	2	1	8
Total	17	72	544	507	143	184	17	1,484
No. of Comments per Interviewee:	3·4	5·5	8·1	10·1	6·5	7·4	2·8	7·9

It is worth repeating here that the subject classification suggested itself; the subjects are those freely introduced by those interviewed and the function of the interviewers is that of passively sorting a set of items whose categories have been decided by the nature of the survey material volunteered.

Interpretation of interview material

Before asking what can be read into Table 18, it is desirable to make some general observations. First, the frequency with which a topic is raised is not in any way dependent upon the interviewers, though it might well be influenced by collusion—or even innocent previous conversation—between the members of staff interviewed. The team thought that the extent to which persons were expressing the views of others that they did not personally share was small, since they generally

(iii)

Hospital S

Staff Category	M.	A.N.	T.N.	U.N.	O.	P.T.A.	A.	Total
Number Interviewed	8	7	32	37	16	16	13	129
Topics	NUMBER OF COMMENTS							
Physical Conditions	0	0	1	4	5	4	3	17
Hours of Work	3	8	34	77	13	11	12	158
Staffing and Methods	7	1	14	2	1	2	3	30
Canteen and Food	5	5	17	33	16	8	8	92
Supplies and Equipment	0	0	3	5	0	0	1	9
Transport	0	0	5	19	2	0	2	28
Pay	5	3	11	14	7	9	9	58
Inter-personal Relations	24	15	59	58	31	22	12	221
Recruitment	11	15	29	11	6	34	6	112
Training	3	6	28	41	28	11	5	122
Social and Recreational	2	0	5	8	1	1	1	18
Promotion	0	0	4	1	0	0	0	5
Total	60	53	210	273	110	102	62	870
No. of Comments per Interviewee	7·5	7·6	6·6	7·4	6·9	6·4	4·8	6·7

Staff Identification Key:

M. Medical staff.
A.N. Administrative nursing, including matron and her deputies, principal tutor and others of the same rank.
T.N. Trained nursing staff, including ward sisters and staff nurses.
U.N. Untrained nursing staff, including students and auxiliaries.
O. Ward Orderlies, domestics and other helpers.
P.T.A. Professional, Technical and Ancillary staff such as laboratory technicians, radiographers and physiotherapists.
A. Administrative staff, such as records officers and hospital secretaries.

gave the impression of speaking with spontaneous conviction; many of them were emotionally involved in the situations they described and nearly all expressed the hope that something would be done about the matters which they felt important enough to raise.

Secondly, the comments of the subordinate staff are often upon

highly specific matters that are quite well known to the hospital administration, such as poor quality accommodation or shortage of supplies. We have not attempted in reporting these to go into detail; there is nothing of general interest in the opinions voiced by hospital staff of their local problems of this kind except to say that, however much comment they may excite, it will still be less than the comment passed on inter-personal relations.

Thirdly, comments of an embarrassingly personal character, although few in number, have not been included; nor have other comments which were general or vague, as about nationalisation or the influences of the welfare state. It must be emphasised that, in our view, comments included under inter-personal relations describe the not-unchangeable state of a system rather than, on the one hand, the individuals who may attract the comments and, on the other, the profession as a way of life. Some comments are based on misconceptions of which the interviewers were aware, but these have been included as well as those based on fact. Indeed, it is particularly important to know of comments based on misapprehension, so that action can be taken to make the situation more fully understood. Certain comments may appear irrational or destructive; they nevertheless represent a dissatisfaction of the staff, and should not be ignored. There were, of course, many issues raised which were already sensed by the hospital management, but, even so, a record of the extent and nature of the feeling of different groups about them was valuable.

Fourthly, dissatisfaction expressed in all hospitals appears to be centred around a few main areas which can be further reduced into two categories. The first contains staffing, pay, hours, living conditions, training and promotion, complaints about matters which can be dealt with by the appropriate machinery, on either a national or local level. The second category contains the less tangible problems of communications, social relations, and personal security. Here, different treatments are necessary and, as the action required is largely to change individual perception and awareness, it is clearly dependent for success upon long term policies. Some attention to the tangible factors, however, will be a sound first move, since it will increase the confidence and trust that employees must have in their own hospital management if the psychological climate is to be improved.

Both in Table 18 and in the following paragraphs no attempt has been made to place items in order of importance; and it could be argued that this would be impossible. All classes of problem interact and the hospital

must be considered as an integrated whole. Nevertheless, the first conclusion to be drawn from Table 18 is the preoccupation of the hospital staffs with difficulties of inter-personal relations; these attract, in all hospitals, more comment than any other subject. In making this classification, moreover, we have been careful to include under inter-personal relations only these relations as such. For example, statements that the dispensary is slow to provide drugs or that the diet kitchen tends to confuse the names of the patients are not entered under inter-personal relations, but under supplies and equipment. But a comment that the pharmacist wilfully keeps student nurse runners waiting and so obliges the ward sister to go herself to see about the prescription is entered under inter-personal relations, though it may be strictly no more than the pharmacist innocently emphasising his own status. Even in Hospital Q, where relations could be described only as bad, and where this is fairly reflected in the great volume of comment, a measurable, if small, percentage was offered in praise of members of the training school, who were thought to do their work bravely in the face of difficulty and even discouragement said to be engendered by others within the hospital. A detailed study of the types of comment so classified suggests frequent failures of communication; these were occasionally understandable in terms of pressure of work or of the removal of the records by forgetful doctors, but were more frequently attributed to the authoritarian traditions that, for a variety of reasons, hospital practice has inherited. Nevertheless, to improve such attitudes does not necssarily demand, as some imagine, a change in human nature itself; Hospital S, for example, which has a significantly low proportion of comments in this field was, five years ago, an unhappy hospital, judged by any standards. A recognition by the management committee of its communication problems, and a sustained effort by a new matron to improve them, achieved striking results. It will, however, be some time before the public reputation of the hospital as attractive to student nurses is restored to its previous high level; recruitment is still a serious problem and the recent improvement of internal morale will need to be sustained for several years before the flow of local recruits is likely to ensure that the hospital will be adequately staffed. There is no reason to believe that this will not eventually occur.

The recruitment problems of Hospitals R and S, which had been associated with the presence of the investigators in the hospitals, are reflected in the volume of comment about this subject. None of the 202 persons interviewed at the other hospital specifically mentioned it;

this was not because the other hospital had no recruitment problems whatever, but because these problems had not passed the threshold level at which they begin to form a subject of everyday conversation, much less of anxiety. Recruitment difficulties, for example, invoke explanation in terms of inadequate pay; it is easy to suggest that girls will be attracted to nursing if they are offered higher wages. Very few staff at Hospital Q pass any comment about pay; it is in the two hospitals that are comparatively shorthanded at which this is in the forefront of the consciousness. While 202 staff at Hospital Q pass only 17 remarks about pay, 329 at Hospitals R and S pass as many as 147. It is also interesting to note how little the staffs of all three hospitals refer to promotion; while those outside the service who are familiar with the young industrial careerist may regard this with approval, there are disadvantages in this widespread contentment to stay in a subordinate position. Nursing seems to be one profession in which there is in fact plenty of room at the top; there is a serious shortage of qualified senior staff of all kinds, and many hospitals have long sought in vain not only assistant matrons and principal tutors, but even matrons themselves. We met in the course of our studies several excellent sisters who, if they mentioned promotion at all, did so only to emphasise the satisfactions of continuing to run their own wards.

All hospital staffs had much to say about their hours of work. A glance at the tables shows that it is in this respect that the three hospitals most strongly resemble each other; Hospital Q, that has no chronic shortage of staff, comments just as much upon its hours of work as do Hospitals R and S, from which there is also so much reference to recruitment and to pay. It is a testimonial to the profession that there is little complaint of long hours as such. Most of the comments are about the uncertainties of off-duty time; we could not be sure whether the majority of the observations were well founded, or whether to complain about the duty roster is merely to do one's homage to the mythology of nursing. Many nurses certainly seemed convinced that the ingredients of the change-list and of the short-notice variations made in it go little beyond favouritism and seniority. No subject could form a better focus for starting or improving a system of joint consultation within a hospital than the preparation of duty lists. The views expressed by the staff about such aspects of technical organisation of hospitals as staffing duties, methods and procedures or the supply of services and equipment vary greatly from one hospital to another and no general comment seems necessary here; the management committees

of Hospitals R and S were well aware of their chronic shortages of nursing staff and had always been generous in the provision of physical resources.

Inter-personal relations

It was in hospitals Q and R that the problems of communication came out so strongly in the interview programme. The unforgettable impressions gained by the team are of the persistent difficulty of making any meaningful upward contact; most nurses and ward staff at all levels saw themselves encumbered with a hierarchy actively and openly dedicated to frustrating those whose business lay on the wards; even the sisters spoke at times as if their successes with the patients were as much a victory over their superiors as over death itself. It is impossible in a report of this kind, intended to encourage the objective study of hospital problems, to give illustrations from our experiences without creating an unfavourable impression that would all too undeservedly be attached to better hospitals. The opposition these hierarchies aroused among the subordinate staff in some hospitals may perhaps be suggested by a simple catalogue of words used by those interviewed at one of them; all anecdote and incident are omitted: aloof, brainless, degrading, dictatorial, fear, ignorant, inconsiderate, interference, niggling, obstinate, pecking order, petty, regimentation, restrictions, sarcastic, snappiness, spying, tyrannical, unapproachable, unco-operative, unfriendly, unmannerly, unrest. These are, admittedly, words actually used to describe to us the conduct or attitudes (or their consequences) of particular staff grades as perceived by others, but, if we are permitted to interpret our experience, we suggest that they should not simply be so regarded; they are the terms of some timeless dialogue, between those who, on the one hand, share, and, on the other hand, do not share, the immediate stresses of the bedside in certain hospitals. For, as we have observed earlier in this chapter, the hospital is an institution cradled in anxiety: the consultant can never be wholly confident of his diagnosis, even although he declares it to the assenting echoes of his retinue; the sister can never be wholly sure that she will successfully handle the next crisis, even although she has ruled her ward with a rod of iron these 30 years; the patient is worried, not about himself alone, but also about his dependents, even although they are joined in a conspiracy to assure him that by to-morrow he will be his usual self and back among them. In situations of anxiety one seeks two supports: a senior on whom one can rely, and an understanding of what might happen next. There are

some who, placed in senior or responsible positions in such a culture, regard it as a weakness even to seek information, much less advice or opinion, from their subordinate; their main concern is that the fortress of their knowledge and experience shall seem invulnerable; a simple device for ensuring this is to close the fortress to inspection. The subordinate is thus never encouraged to ask questions, since questions may test the superior's defences and even allow the sawdust to trickle out. And since, in management as in war, the surest form of defence is to attack, the insecure or inadequate person, carried by circumstances to a commanding height, will be concerned not to allow the enquiring initiative to pass into the hands of the subordinates; he defends himself against the disclosure of his own shortcomings by aggressively canvassing those of others, and by astutely avoiding any engagement that is likely to question his right to be in charge. An administrator who repels his new and eager subordinate as a worrying nuisance soon has the satisfaction of seeing the subordinate become so frustrated as to be incapable of constructive thought. To at least one member of this team, one of the most gratifying trends in modern hospital practice is the willingness of younger doctors to say, in reply to the questions of a layman, "I am sorry, but I do not know. Can you suggest how we might be able to find out?" It was also impressive to hear the new matron of a large Midland hospital, faced by the starched array of her sisters' meeting, say in reply to a technical question about some procedural circular, "Well, girls, would you believe it? That makes two of us. Can anybody tell us both the answer?" Such candid self-revelation and such unassuming self-confidence seem still comparatively rare, perhaps because the patient still demands of his doctor an omniscience to which no mortal man can attain; one certainly gains the impression that many doctors, obliged to act such a part for the reassurance of their patients, eventually grow identified with it, like the crow in the fable, flattered by the fox to believe that she had the voice of a nightingale. The same may not seldom be said of matrons; in situations that, to the young nurse, are charged with unconquerable surges of self-reproach, guilt and even remorse, and by suggestions that had one but done something different from what one actually did, the patient might have lived, there is a constant demand for emotional support and for a sharing of meaningful experience. But what if, in these tentative approaches, the senior should be proved wanting, unwilling to answer the questions, unready to remove the doubts, unable to offer conviction to the hesitating junior? In some hospitals, the system of authority, rigid

but insecure, must continually strive to protect itself against such undermining challenges and, sooner than admit the weaknesses of its human foundations, will deny the opportunity to call them into question. In the extreme, we find subordinates who, in their perceptions of the hierarchies under whom they serve, can think only in terms of the words used in the catalogue set out earlier in this paragraph. Even in happier organisations the principal defence mechanism of the insecure manager is a refusal to listen to what is said to him, and the vast majority of the human problems of industry are both aggravated for this reason and insoluble until it is corrected. There is now considerable evidence to suggest that, in institutions strongly dependent upon up-to-date information, the superior who displays inflexible or unsympathetic attitudes towards his immediate subordinates has probably first perceived them in his own superior; the matron, for example who is unsure of the support that, in her own anxious moments, she will be accorded by the hospital management committee (even supposing she is allowed to meet it) is likely to develop an unapproachable or even hostile attitude towards her own ward sisters. It has been shown in the course of this study that the ward sister transmits to her staff the attitudes she perceives in her superiors (see Table 29, Appendix 6). It is to the deeper analysis of these human factors that we turn in the next chapter. It was these surveys of hospital opinion which suggested the form which this analysis should take.

CHAPTER 8

ATTITUDE AND BELIEF AS HOSPITAL CHARACTERISTICS

(This chapter should be read with close reference to Appendices 5 and 5(*a*))

THESE ATTITUDE SURVEYS suggest that some student nurses continue to find it difficult to adapt themselves, even after their first year, to life on the ward. The differences between hospitals, however, in the average wastage rates of the student nurses during their early months is so impressive that we should seek better to understand them; in this search the specific comments of the student nurses about their problems may be helpful.

The statistical analysis of the results of the surveys encourages us to search for structure in these difficulties of adjustment. One question in particular seemed to us to be sufficiently important to demand an investigation in depth. Are the difficulties that the student nurses experience likely to derive from what is often regarded as the authoritarian tradition of the nursing profession, long established and permanent, or are they symptoms, characteristic of organisational disorders, perhaps temporary and tractable, at particular hospitals? In other words, is it some incurable preoccupation with rank and seniority latent throughout the profession as a whole, although coming to the surface in particular hospitals, that repels and disheartens all but the toughest of the junior nurses, those likely to survive and to carry forward their cauterising brand into a new generation? Or are there in these particular hospitals local, and perhaps temporary, failures of morale symptomatic of some internal malfunction? These questions are important: if the difficulties arise from a universal preoccupation with status, the outlook for the profession must be sombre; the likelihood of changing what is said to be the authoritarian outlook of the nursing hierarchy within one generation is remote, even supposing that such changes are necessary

or even desirable in themselves. If, on the other hand, the difficulties which the student nurses in certain hospitals have in making friends of their superiors stem from administrative or organisational shortcomings confined to these particular hospitals, it may not be beyond human contrivance to do something about it soon.

To summarise our conclusions before describing our methods and our experimental results we may say that the evidence suggests that the difficulties of the girls derive largely from failures in the organisation of the particular hospital, rather than from any supposed rigidity within the profession itself. Indeed, what is often described as its authoritarian tradition, which rarely fails to impress the bedside visitor unused to hospital life, may be a support vital for those within it. Certainly the third year student who may complain about what she imagines to be the privileges of her seniors will be speaking in a different tone three years later, should she herself by then become a junior sister; the facility with which those who climb the ladder of promotion also adopt the outlook of the levels to which they climb is impressive, and suggests to the student of human affairs some self-sustaining professional defence mechanism against the threats and tensions of responsibility. A system of authority seems to be as necessary for the student nurse to accept as it is for the matron and the ward sister to exercise; the question for us is of the spirit with which the system of authority is informed.

Specific questions from general attitudes

(i) *Hierarchy or Status:* When we classify the thousand or so remarks upon personal relations made by nurses of all ranks in the course of these free interviews, we find that they suggest a few simple ideas. Some of these we may try to describe. Consider, for example, the concept of status, that is, of the privileges, respect or authority granted to or demanded by certain persons by reason of their office or seniority alone. We heard a great deal of criticism by the junior nurses of the allocation of hours set out in the off-duty rota; they often felt that their superiors were unfairly given the best night to be out. This could be a source of intense indignation, since girls who had been banking upon a particular evening off often discovered at the last moment that they were to remain on duty. It is only fair to say in defence of most hospitals that on investigation the number of cases of justifiable complaint was much smaller than one would have imagined from the volumes of protest that were voiced, however deep the individual disappointments. Nevertheless, there was a strong belief in particular hospitals

that, in preparing the off-duty rota, the only consideration was seniority or rank within the nursing hierarchy. If, therefore, those in senior positions in a given hospital expressed unambiguously the belief that rank was, and should be, the main criterion adopted for allocating desirable hours, we may take it that this particular hospital displayed hierarchical commitment.

In other hospitals, we met senior nurses, including matrons, who, in private conversation, regretted that the nursing staff was so scattered at meal times; we also met the contrary opinion. Some large hospitals had as many as five different dining rooms, each, apparently, designed to ensure that the nursing staffs of different ranks did not mix with each other off the wards. While few would suggest that the profession ought to adopt a principle of one staff-cafeteria, in which the matron, sisters and nurses of all grades queue in the order of their arrival for their meals, we met thoughtful matrons who would have liked to persuade their sisters that less segregation might be observed at meal times. But we also found sisters who openly expressed the view that status concentration at meal times was essential to the efficiency of the hospital, that is, presumably, to the well-being of the patients. If, therefore, at any hospital it were possible to determine how many of the senior staff believed that the nurses of different ranks should not mix during their meals, we would have a further index of the rigidity of its nursing hierarchy.

These two indicators are drawn from the social life of the hospital. But it is also necessary to suggest how far such hierarchical inclinations might affect the learning situation on the ward. We found, for example, that about half the senior staffs of the hospitals whom we interviewed believed that student nurses should be taught in the training school that they must not speak to the doctor unless the doctor spoke first to them. We cannot be sure that this is necessarily evidence of hierarchical commitment because some sisters, for example, might, from direct experience, believe that the doctor's task is difficult enough already without his being distracted by what he might feel to be the chatter of eager 'teenagers. This belief seems, nevertheless, to be the inheritance of a previous age, when little children were to be seen and not heard. In some hospitals, indeed, the sisters shooed their junior nurses off the wards just before the main medical rounds took place. The sisters who did this no doubt had good reason to recall complaints by doctors that too much ward activity might interfere with the examination of their patients. Hence, although the extent to which sisters believed that their

junior nurses should be taught not to approach the doctors might be evidence of their commitment to hierarchical ideas, it was not used for this study. We chose instead the extent to which the ward sisters believed that they themselves and only themselves should always deal with the consultants who visited their wards, however many consultants might happen to turn up. This seemed to us to suggest how far the senior nurse on the ward was willing both to allow her junior to get the experience of discussing cases with those from whom she might learn most and to gain a little experience and responsibility, to use, perhaps, on her own initiative should the ward, at some future date, come under pressure and the sister be unable to deal with everything herself. The dyed-in-the-wool authoritarian can always be recognised by her unwillingness to allow any short-circuiting of the official channels, or any sharing of the power vested in herself.

Our fourth indicator of hierarchical attitudes was a measure of the reliance which the ward sisters placed upon their paper work. We had discovered, during our observations of how the ward team spent its time, that some sisters gave about 30% of their day to paper work and activities closely associated with it out of as much as 60% to administration all told; others gave as little as 10% out of 25% respectively. Granted that lives of patients are at risk and that information about their progress and treatment must be accurate; granted that many persons not readily able to meet face to face need to have access to this information. For all this, there is a limit to the authority that should be expected of written records; in the constant change and emergency of the ward one has to admit the responsibility of the human being to observe, to decide and to act irrespective of what might or might not be dictated by the papers. While nobody would advocate for hospital wards the example of Messrs. Marks and Spencer, who have recently, with striking effect, decimated their written records and insisted upon their staffs talking to each other instead, we suggest that the emphasis that the sister places upon paper work is a measure of the extent to which, as a person, she would sooner rely on what is down in black and white than she would upon the richer, if occasionally less reliable, faculties of her own staff. It is again a mark of the true authoritarian to place the responsibility upon the paper system rather than upon the living person; the French, with their ample vocabulary of womanly weakness, actually have a name for her, *la paperassière.*

Hence, by measuring the specific responses of the ward sisters to four particular statements, namely, about the need (*a*) to give precedence

to seniority in settling the off-duty rota; (*b*) for nursing staffs of the same rank to keep together at meal times; (*c*) for the ward sister always to deal with the consultants herself; and (*d*) to prefer the written record, we have been able to construct an index of hierarchical commitment. We found two interesting results. First, this commitment ranges very widely. There are some sisters who display in each of these four areas the most extreme hierarchical conviction; others hold contrary opinions. Secondly, there are very great differences between hospitals in the average commitment of the ward sisters to these hierarchical beliefs. While within any one hospital the beliefs of the individual sisters are widely spread, the average level in one hospital may be significantly higher or lower than the average level in another (see Appendix 6).

(ii) *Student Nurse Integration:* We may, in the same way, use our free interview material to define the attitudes of the ward sister towards the integration of the student nurse into her ward team. In measuring hierarchical commitment we have as far as possible tried to keep our specific responses clear of statements to do with instruction or training of the student. But we observed, either in the course of our ward studies or in the recollections of the student nurses, many situations which must have influenced their development profoundly. In the free interviews, for example, many student nurses remarked that their sisters always seemed too busy to spend time on explaining to the student nurse how to do what she had been told to do; Table 14 illustrates the very small amount of ward time which some sisters seem able to give to their juniors. The example is not chosen to exaggerate the point; it is typical of the hospital from which it was drawn. There were many sisters, too, who complained of the pressure of work and of the number of matters they were forced to attend to before they could devote time to training. Hence, we set out to measure the attitudes of the sisters on whether or not they felt they could find time to give to the student nurse only after they had disposed of more important matters.

We found, on the other hand, that many student nurses had been regularly brought by their sisters into conferences with the whole ward team. At these conferences not only had the progress and condition of the patients been discussed but so also had the problems of the staff and of the hospital organisation. Some student nurses spoke with feeling about the lack of these consultations in their experience, but when we managed to steer our conversations with the sisters towards these points we were frequently told that there was no time to organise such

conferences and that, in any case, they were not worth the time they would take up. We do not know much about learning processes in general, whether in hospitals or elsewhere, but there is evidence that all successful training offers to the student nurse the opportunity to ask questions about her present experiences and to discuss her problems with others who are also learning. If we know, therefore, whether or not sisters regard such ward conferences as worth while, we have at once an indication of their attitude to training. We therefore specifically measured this attitude among our ward sisters.

Our third indicator of the sister's outlook upon integration and training was the extent to which she believed that it was her responsibility to explain to the student nurse any instructions sent to the ward from her superiors. Here again, we find a wide divergence of perception; there were some who would regard such efforts as a sign of weakness: subordinates who are offered explanations may retaliate by questioning policies. It was sincerely felt by other sisters that there was no time to explain, much less justify, what perfectly competent people had already decided; others equally sincerely believed that, since, in emergency, the nurse had often to act upon instantaneous and arbitrary instructions, she should not be encouraged to be inquisitive about them. This is a real problem; the point of view is honest and well-intentioned, and it is easy for outsiders to misrepresent what lies behind it. Nevertheless, whatever the perception of the ward sister, her conviction that she should not explain "higher instructions" to the student nurse must not seldom militate against the girl's assimilation to the ward team.

Fourthly, we have chosen as an indication of the ward sister's attitude towards her juniors the extent to which she feels that she can set high standards of work without herself becoming disliked. In an age when many sisters believe that most young people have had too soft an upbringing, that parents do not exercise enough discipline over their children, or that education to-day is too theoretical, it is easy for them to express the opinion that if they ask high standards of their nurses they will be personally disliked in return. In fact, we found that this last opinion was held by considerably less than half the sisters. It nevertheless appeared to us to be a meaningful indication of the spirit in which the sister set out to engender high standards of performance in the nurses and so was included in our small battery.

We have therefore measured the attitudes of the sisters towards student nurse integration by testing their responses to four specific matters: namely, whether there is time to instruct the nurses amid the pressure

of all other ward duties, whether conferences of the ward team are worth the trouble and time that they would take to organise, whether it is necessary to explain instructions coming down from above and whether it is possible for the sister to demand high standards of her nurses without becoming personally disliked by them. Again we find that the measure of this attitude varies widely between sisters and also that its average level in particular hospitals differs widely from its average level in other hospitals. The variation between hospitals, as in the case of hierarchical commitment, is very significantly greater than the differences between individual sisters (see Appendix 6).

Status and integration not correlated

We find, however, that there is no relation between these two sets of attitudes (see Appendix 6). We find this result whether we take the sisters individually or whether we compare the averages in particular hospitals.* By saying that there is no relation we mean that sisters who have extremely authoritarian attitudes, that is, sisters who display marked status commitment, may nevertheless have sympathetic attitudes to student-nurse integration and *vice versa*; we mean also that sisters with little or no hierarchical commitment may nevertheless have unfavourable attitudes to training and *vice versa.* We also find that a hospital with an average status commitment that suggests institutional rigidity may (or may not) be staffed with sisters whose average attitudes to integration and training are sympathetic and favourable: or that a hospital which has little collective commitment to status may (or may not) display attitudes unfavourable to student integration. This is an interesting result, because it suggests that if the ward sister's attitude to integration is—as our free interviews with the student nurses suggest—significant in determining whether those students will remain to complete their training, we must look elsewhere than to status commitment to discover on what, if anything, that sister's attitude to integration is founded. The observational fact, mentioned above and brought out in Appendix 6, that some effect, specific to a particular hospital, helps to determine the training attitudes of the sisters who serve there means that this search may well be worth while.

* This is a revision of a conclusion expressed in R. W. Revans's paper of January 11, 1961 to the Manchester Statistical Society. In the earlier paper he attributes to the training block certain attitudes of the sister (towards always dealing with the consultants herself; and towards the need for more and more paper work) which are manifestly attitudes to status commitment. If these re-assignments are made the result given here is confirmed.

(iii) *The Sister's Perception of her Superiors:* Our observations on the floor of the ward showed that in most hospitals ward sisters are, from time to time, necessarily under considerable pressure. In saying this we do not suggest that they are, in fact, so busy that they cannot, for long periods together, attend adequately to their work, nor even that those wards which seem most busy cause the greatest anxiety to the staff who work on them. Elsewhere we suggest that a high activity rate may indeed be a sign of high morale and of well-adjusted student nurses; the evidence is that hospitals with a rapid turnover of patients tend to show a low wastage rate among the nursing staff. Many student nurses, too, suggested in free interview that no other satisfaction could compare with being run off one's feet in the interests of the patients; hospital cadets, not yet tarnished by the realities of institutional experience, rated the opportunity to do some useful hard work as the only reward their life had to offer. However this may be, we were also interested in how the sister spends her time and particularly in the attitude which she has towards those who would appear to influence the effectiveness with which she is able to work.

We found from the free interviews with the ward sisters that their outlook on life is strongly coloured by many features of the hospital organisation outside their wards, from the speed with which the medical records section deliver information when asked for it to the co-operativeness of the engineer in mending a chair or putting a new washer on a dripping tap. It was, however, out of the question to sample on a numerical basis the responses of the sisters towards all of these organisational influences and we finally selected for analysis four influences decisive among the sister's multifarious activities.

The first of these is the attitude of the sisters towards the medical staff for whom they work. We have noticed, without trying to make any statistical record of our impressions, that there are many doctors who regard the work of the nurses as something useful but inferior, as a business man regards the work of his typist or a pilot the ministrations to his passengers of the air hostess. Some sisters speak with emotion in these affairs, and we were given examples of doctors completely ignoring or even ridiculing suggestions made by sisters about the treatment of the patients.* In this particular analysis, however, we merely measured the extent to which the ward sisters felt that the doctors were accorded—by relatives, patients, and other doctors—too great a

* "Lazarus had to fall back on Jesus Christ. *Our* patients have Mr. X." . . . a Lancashire ward sister on consultants.

share of the credit for any success which the ward team might achieve. We found, for example, that in certain hospitals the ward sisters were practically unanimous in their view that the doctors took too much of this credit; in other hospitals not one sister imputed to the medical staff this exaggeration of their role. As in other attitudes which we have attempted to quantify, there were very great differences between hospitals in this relationship. While the extent to which the doctor assumes the credit for what is achieved may not measure the pressures upon the sister, the most casual observation reveals that it influences the cheerfulness with which she goes about her work. Ward sisters may be a class well-tempered in the flame of experience, and they may often maintain an illusion of detachment. But the outside observer who spends many hours among them very soon recognises the immense influence that is exercised on them by the doctors; a few words of appreciation or an admission by the doctor that such and such a suggestion from a sister has altered his view of a case often make not only the average sister's day, but, by this analogy, her whole life.

The perception held by the sisters of their matron is hardly less important than their perceptions of the doctors. While, in our view, the exact functions of hospital matrons and in particular their relation to the ward sisters seem to deserve more thought than they are usually given, the matron is the most important individual on the horizons of the sisters. The extent to which she seemed to be in touch with her sisters' problems and, moreover, able to do much about them was a source of voluntary comment by almost every sister; the average level of appreciation implied in this comment differed more widely between hospitals than any other systematically recorded.

We sought in this area to measure what appear to the sister to be two important influences. The first is the extent to which the matron's office seems to be in touch with the problems of the ward; this was mainly judged by the speed and understanding with which the nursing staff on the ward would be reinforced by the matron or her deputy in times of emergency or of particular difficulty; it was also judged by the sympathy with which the matron's office treated special requests from the sisters for equipment or supplies. Although these requests might eventually be turned down, the sisters were normally quick to grasp whether the matron's office understood and supported the recommendation or not. Secondly, we tried to observe the attitude which the ward sisters had towards participation in their regular meetings with the matron and her staff; some sisters spoke of this meeting with enthu-

siasm, saying that it did more to strengthen the link between the matron and her lieutenants than any other device in the hospital calendar. Other sisters were less enthusiastic; an outside observer soon notices great differences between these meetings in different hospitals; some which are conducted with little comment from the sisters' side may break up with a release of tension that is illuminating. In particular, the sisters judge the effect of the matron's meeting upon the running of their wards by the extent to which suggestions put forward at the meeting are eventually acted upon; nothing is apparently so frustrating as to spend a great deal of time discussing some particular problem at the matron's meeting and discover in the course of time that nothing can be done about it. We therefore chose, as an estimate of her confidence in her superiors, the extent to which the sister perceives these discussions as producing positive results.

Our fourth factor aimed at assessing the sisters' estimate of her superiors was the extent to which she believed that the ancillary departments of the hospital such as the dispensary, the diet kitchen, the pathological laboratory, the X-ray department and so forth, appeared to recognise that they existed primarily to help the wards. However uncharitable it may be to suggest that some ancillary departments are unmindful of this, the fact remains that we heard many dark allusions to those who suited their own convenience. The growth of functional specialism in any organisation, whether a hospital, a town hall or a coal-mine, always brings with it a concentration of technical expertise that may threaten to divide the experts from those who need their services; this tendency to isolation is likely to become worse if the technical specialist feels that his skill may be threatened by still newer forms of professional innovation. We found, for example, that some dispensers felt the growth of ready-made drugs or tablets was a threat to their technical skill and this, according to the sisters, made them at times difficult to handle. In other hospitals the specialist departments complained that they were unable promptly to attend to the demands of the wards because these were ill-formulated. We therefore invited all the sisters to reveal their attitude to the co-operativeness of other departments; evidently, if a ward sister is under pressure and in need of information or help from some other department of the hospital, it can only add to her apparent difficulties if, in her opinion, this other department seems unaware that its central function is to help the patients and those who look after them.

We have in this way measured the attitudes of the sisters towards the

effectiveness of the help given to them by their superiors, or towards the general functioning of the hospital organisation as it is motivated or controlled by those superiors. We find that the average scores of the sisters differ very greatly indeed between one hospital and another, more so than do the averages of the scores suggesting either attitudes towards hierarchy or status, or attitudes towards the integration and training of the student nurses (see Appendix 6). This is perhaps no very surprising result: the ward sister who is under pressure will be correspondingly conscious of the extent to which her superiors are, in fact, able to help her and since there are, even to the most casual observer, differences between the organisational effectiveness of otherwise comparable institutions, it is easy to believe that these differences will be noted and responded to by the ward sisters. But the second major conclusion is more interesting: attitudes of sisters towards nurse integration, although not correlated with their attitudes towards hierarchy or status commitments, are very significantly correlated with their perception of their superiors and of the organisation that their superiors control. This suggests that, insofar as the student nurses are in fact influenced by the treatment they get from their ward sisters, and particularly, insofar as this treatment helps to determine their wastage from the training courses, it is to the relations between the sisters and their superiors in particular hospitals that we should give our attention; attitudes towards hierarchy and seniority as such do not seem to influence the sister's outlook on these matters. The problem is not therefore to change an entire professional culture; it is to alter the attitudes of the senior staff in particular hospitals. Until we know a great deal more about the influences which form these attitudes it is unlikely that much progress will be made in this direction. For all that, the task is not impossible; the differences between otherwise comparable hospitals are so great that their causes might well be observable, and when causes are known remedies can perhaps be found.

CHAPTER 9

THE HOSPITAL AS A UNITY

THE EVIDENCE of the previous eight chapters lead towards one conclusion: there are in any hospital several characteristics, shared by all who work or are treated there, which can be measured and which, when measured, suggest that every hospital may differ significantly in these characteristics from other hospitals. There is a characteristic stability of staff, particularly of ward staff; there is a mean length of stay of patients in particular diagnostic groups characteristic of the individual hospital; at the end of Chapter 4 we suggest that these two factors, of staff stability and of mean length of stay are, in large samples of comparable hospitals, significantly related. Our attempts to measure the attitudes of ward sisters towards their superiors and towards their subordinates suggest that these are also related, but that neither follows the patterns of the sisters' attitudes towards hierarchy, status or professional precedence as a determinant of hospital morale or behaviour. We may now ask, as it was suggested in the study of the patients' attitudes by Anne McGhee (see Chapter 4), whether "the atmosphere of the ward" is likely to be related to the recovery rate of the patients. Does the common characteristic that seems, in the sample of five Lancashire hospitals, to enter into both staff stability and patient recovery, also help to determine the "atmosphere of the ward", or, to turn the question inside out, is there any relation between duration of patient stay and staff stability, on the one hand, and the "atmosphere of the ward" (whatever that may be), on the other?

Medical and surgical patient stay

To test this hypothesis, we collected statistics, and interviewed several hundred ward sisters, at fifteen acute or mainly acute general hospitals in the Midlands and North of England; all except one were in the Manchester or Sheffield Regions, the other in the Leeds Region; none

were teaching hospitals. One of the research team spent over a year in visiting these 15 hospitals to collect statistics of mean length of patient stay and of staff wastage, and although those familiar with hospital records may ask whether he could possibly have obtained any figures of value by doing so, we can only answer that we believe he did. The research worker concerned was a recently retired Director of Education, a physicist by early training, and a man who had spent a lifetime dealing with both professional men and bureaucrats, as well as the records with which they work. He collected, from the monthly reports to the Hospital Management Committees, the numbers of patients discharged in certain diagnostic groups common to all the hospitals, much as described in Chapter 3, and by weighting for numbers of patients, established two grand hospital average lengths of stay, one for all general medical, the other for all general surgical cases; these two parameters we call here M and S. Once the diagnostic groups had selected themselves the task, although tedious, was not difficult.*

Stability of qualified ward staff

The stability of the ward staff was not easy to estimate. We were soon obliged to study qualified staff only, namely, ward sisters, junior sisters and staff nurses; the records of the student nurses were so diverse and the overlapping of nurse training schemes within some groups of hospitals such that it would have been impossible to measure the stability or wastage of their student nurses. The records of the ward sisters and their qualified helpers were, at first sight, more promising; the date of entry into the hospital of each of these was recorded in the minutes and a sample of these was checked with the hospital finance officers. Nevertheless, it was difficult to estimate the mean length of stay, even of the qualified ward staff alone, by this method; our experience

* The essential quality of the research worker was not his understanding of statistics or of sampling methods, but his ability, acquired from a lifetime of experience in a London town hall, to interest the consultants, as well as the assistant records officers, in what he was trying to do. Much preparatory social research, whatever the purists have to say, can be started only if existing statistical material is used; if much of this is imperfect it is the business of the research worker to identify the character, and to allow for the magnitude, of its imperfections, and this he can do if he has the ability to work with the clerks who prepare the records. The need is imperative enough almost to merit the identification of a new branch of research: as theology is supported by the discipline of interpreting scriptural texts, namely, exegesis, so the student of society needs the support of those skilled in reading and verifying the records kept by clerks at the places to which they refer, and under the pressures and distractions of daily life.

at the first five hospitals, described in Chapter 2, had already suggested this. To collect the statistics of staff turnover where the range of individual stay may be from two months to 20 years or more demands sampling over a considerable period and our research team had not the resources in manpower to do this thoroughly.

Our second decision was to fall back on establishment ratios, that is, the extent to which the hospital strength is maintained; if, in a given hospital, the complement of sisters, junior sisters and staff nurses on the wards, theatres and other units was, suppose, 40 in all, and if, in January, the number actually in the hospital was 32, this ratio would be 80%. The figure varied from time to time, even from month to month, but the average for the year could be readily computed. We therefore accepted as a measure of staff stability the establishment percentage; this is, admittedly, not a linear function of the mean length of stay of the sisters, but it must be positively correlated with it, if we consider enough sisters and enough hospitals. It is true that the time taken by advertisement and interview in filling a vacant post probably varies between hospitals and is bound to influence the establishment ratio: this must in turn reduce the correlation of staff stability with it. But a list of names of any 15 hospitals written down in rank order of wastage of sisters (and of other qualified ward staff) must look very like that of the same hospitals written down in order of their establishment ratios, but turned upside down. Certainly, most prospective matrons would find it hard to choose between the offer of a post at one hospital with the ward sisters generally at two-thirds of establishment, and at another where few sisters would stay more than two years. If, though we heard it only as expressions of opinion, sisters move towards certain hospitals because their friends are there or advise them to go there; and if, as is certain, sisters move out of other hospitals because they find themselves unable to settle there, it would appear that the hospital that the sisters do not like would be short of staff for both reasons: it would have plenty of resignations and few recommendations. The argument is no stronger than this; we have made no statistical study of the relationship, from one hospital to the next, between mean stay of qualified ward staff and the corresponding establishment ratio. Nevertheless, we have been able to rank the 15 hospitals by this single parameter, called here Q.

Perception, staff stability and patient stay

The other parameters measured are two of those described in Chapter 8; the first is the sisters' perception, averaged over the hospital,

of the approachability of their superiors, P; the second is the sisters' attitude towards the integration of their student nurses, K. It is these together that may be taken to suggest the "atmosphere of the ward". The array of 15 hospitals by the five measured parameters is set out in Table 19. Before discussing the significance of this, it may be desirable to emphasise that the research team, since they collected the statistics, are aware of their shortcomings. The attitude parameters, P and K, are, for example, determined for only a sample of all the sisters in the hospitals; these samples are, however, never less than two thirds of the total number of sisters on the hospital roll. The estimates of P and K were made but once; they were not averaged over a year as were Q, M and S, so that some sisters who had left by the end of the year in which Q, M and S were estimated may not have contributed to P and K. These are

Table 19

showing the rank orders of 15 acute general hospitals for the parameters set out below:

Hospital	Rank Order by Five Parameters				
	P	K	Q	M	S
A	1	5	2	1	1
B	2	1	9	2	3
C	7	6	1	5	6
D	4	3	12	8	2
E	3	2	6	6	14
F	6	4	7	7	7
G	8	12	3	4	9
H	5	10	5	14	13
I	14	11	10	3	10
J	13	15	4	12	4
K	11	9	13	9	8
L	9	13	8	11	11
M	12	7	15	13	5
N	15	8	11	10	12
O	10	14	14	15	15

P Sisters' opinions of senior staff.
K Sisters' attitudes towards student nurses.
Q Stability of qualified nursing staff on wards.
M Mean length of patient stay; general medical.
S Mean length of patient stay; general surgical.
Coefficient of Concordance, W = 0·51; significant at 0·1%.

a few of the objections that can be levelled at any attempt to find statistical relationships among these five measures. Yet it is highly unlikely that these randomising influences would conspire to make any effect that we are seeking easier to find; experiments relying upon any correlation between identifiable factors are made less, not more, sensitive by contaminating influences, unless the contamination itself is also strongly loaded into both or all of the identifiable factors.

We have ranked the 15 hospitals in this table from A to O according to the sum of the ranks of the five parameters; this varies from 10 to 68. The random probability that, over the array as a whole, the small numbers in the five columns will be associated as they are, and *vice versa*, is about one in a thousand; in statistical jargon, the coefficient of concordance is 0·51 and this is significant at approximately 0·1%. We must, therefore, conclude that the five parameters are to an appreciable extent related, in spite of the fact that certain hospitals, as, for example, J, show a perverse choice of both low and high rankings. The table confirms, as we should expect, a significant positive correlation between P and K, the two attitudes of the sisters; and a positive correlation between M and S, although it is significant only at 8%. Nevertheless we know from other and more detailed examples, that M and S are, when considered each as made up of many separate diagnostic groups, significantly correlated. The weak element in the concordance of Table 19 is Q, although even so this is positively correlated with the other four parameters, and the significance levels with P and M are 10% and 8% respectively. This confirms our interview material with the ward sisters, who frequently remarked that high turnover rate among the patients, on the one hand, and the approval of their consultants, on the other, were the two rewards worth having, and so would make the hospital that had them to offer a place to be worked in. Put in this way, the proposition is not in need of support from statistical evidence, itself none too strong. Yet the free interviews with the sisters, in which they volunteered such remarks, were held in a few hospitals only, and it is of value to find more general support for these associations in a wider sample of hospitals.

The estimates, within the fifteen hospitals of this sample, made of the sisters' attitudes to their superiors, P, and to their subordinates, K, are not only significantly correlated with each other at 1% (as we have shown in other hospitals), but they are also correlated with the mean length of patient stay of the medical patients. The correlation of sisters'

attitudes towards the integration of the student nurses, K, and the mean period of stay of medical patients, M, is significant at 5%. If we assume that medical patients are, on the whole, more dependent upon the communication system of the ward than are the surgical, it would follow that sisters' attitudes to students would be reflected in the mean stay of the medical patients more than in the mean stay of the surgical, since the sisters' attitudes to their subordinates would determine the amount of information passed, not only to the physicians, but also to the paramedical units upon which the diagnosis and treatment of the medical patient so much depends. It would also affect the solicitude that the student nurse would show to the patients and this may be an ingredient in recovery more vital to the medical patients than to the surgical. We return to this point below, but Table 19 suggests that the length of stay of medical patients is more strongly loaded with the hospital factor than any of the four other parameters.

We can use these not entirely surprising conclusions to speculate upon the qualities of "good" hospitals. There is some evidence to suggest that hospitals able to retain their staffs are also able to discharge their patients more rapidly. While we do not know how to measure the absolute standard of patient care (largely because we have not yet dedicated enough resources to asking what it may be) and so are unable to judge either the condition in which a patient is discharged from hospital or the amount of benefit that he has derived from having been in there, we may ask whether, over large numbers of patients, in comparable areas and identical diagnostic groups, hospitals with short durations of stay differ in any observable particular from hospitals with long; the particulars of greatest interest would be any that suggest the level of patient care provided in the hospital.

Need to determine nature of patient care

It would be of value, for a deeper understanding of many hospital problems, to study certain inter-hospital differences apart from those here discussed. We should know more than we do about, for example, the extent to which the medical staff consult each other over unusual or difficult cases, and how, if at all, they keep in touch with the general practitioners who have sent them; we should know the differing degrees to which the staffs of different hospitals use the services of their ancillary departments, order post-mortem examinations and employ such indirect facilities as the medical library. There is also a vast field for the objective

study of nurse-patient interactions at the bedside; 50 normal manual workers between 25 and 35 years of age will remain eight days on average, in hospital X when undergoing appendicectomy; 50 normal manual workers between the same age limits will, for the same operation, remain 12 days in hospital Y, less than 20 miles away. In what observable respects do their experiences in hospital differ? What occupies the 100 hours by which one average duration exceeds the other? We do not know the answers to these conundrums. It has often been remarked to the writer that it is obvious, or that it stands to reason, that the extra four days that, on average, these patients spend in hospital Y must bring to them benefits denied to their counterparts discharged so unfeelingly soon from hospital X. These are obscure subjects on which to advance definite opinions, and it would be well to have evidence to support them. For the present it is hardly possible to go beyond such an argument as this: "Suppose that hospital X, by forcing the pace of treatment, put the appendicectomies under some disadvantage from which those at hospital Y may be considered free. Then, since it has been shown that the duration of stay not only of appendicectomies, but of all other patients in hospital X will tend to be shorter than that of their counterparts in hospital Y, it would appear that patients in all diagnostic groups at X would suffer something of the same (supposed) disadvantage. If we examine, in otherwise comparable hospitals, those diagnostic groups in which, it may be presumed, the patients respond most variedly to their hospital treatment according to the three different channels of disposal open to them (namely, death, discharge home or transfer to another hospital), we should expect that the hospitals with a significantly short stay for patients discharged home also secure responses in the other classes of disposal less favourable than the hospitals that keep those discharged home significantly longer." But what, for example, is meant by suggesting that hospitals might be comparable? Even although particular diagnostic groups are compared only among themselves between comparable hospitals, what evidence is there that the average condition of the patients who enter one hospital is not different from that of those who enter another? The quality of the district nursing services may differ, or the general practitioners in one particular town, for example, may encourage patients with malignant neoplasms to enter the local hospital at a significantly earlier state of the disease than those in another; this would make both the survival rate higher and justify a shorter mean duration of stay among the patients entering that hospital with that complaint, since their average

need for treatment would seem to be less.* But it follows that, since there is a significant concordance between average duration of stay by hospitals in all diagnostic groups, this argument (or one producing the same effect) would have to apply not only to malignant neoplasms, but to heart diseases, to pneumonia, to diseases both of the central nervous system and of the digestive system; these five diagnostic groups were found to account for over 70% of the deaths in a sample of 11 hospitals whose records were kindly supplied by the statisticians of a Regional Hospital Board. They are presented in Appendix 8 and show, as we would expect, a highly significant concordance between the average durations of stay for these five diagnostic groups.

Other channels of disposal in contrasting hospital groups

The 11 hospitals, which are of different sizes, may than be divided into two classes: Class S, of the four hospitals with the shorter average stays, totalling 1,670 beds, and Class L, the seven remaining, totalling 1,586 beds. The classification has been made in this way to divide the total bed capacity roughly into two equal sub-totals. The ratio of patients per bed (in these five serious groups) averaged over the year is greater in Class S, by 4·33 to 3·09. Nevertheless, the transfer rate to other hospitals is significantly less in Class S, and when one asks whether there is any detectable difference between the survival rates of the patients who enter Class S hospitals, on the one hand, and those who enter Class L, on the other, the answer is that no clear pattern emerges. If the average total amount of effective care received by a patient discharged home in a hospital of Class S is less than that received by a similar patient in a hospital of Class L, because he has not stayed in there for so long, the factors that make for this deprivation have not, it seems, affected the mean chances of survival, since this is greater in Class S than in Class L. It may not be difficult to suggest reasons for this negative result, apart from those already mentioned, such as that, in spite of observable similarities, the hospitals are not in fact comparable, or that the average admissions at different hospitals are at significantly different stages of affliction with the diseases. For example, to send hopeless cases home to die after only a few days in hospital would both inflate the (apparent)

* The hospital that had these satisfactory relationships with local general practitioners would, in the sense of this essay, have a good communication system. The consultants who encouraged this precautionary behaviour among their external colleagues would also be likely to have good relationships with their subordinates inside the hospital.

survival rate and reduce the average duration of stay; to persevere with them at the hospital and see them eventually die would reduce the (apparent) survival rate without necessarily affecting the duration of stay of those discharged home, unless patients with a high chance of recovery were sent home rapidly to make beds available for the hopeless cases whose durations of stay were being prolonged. Two consultants in the same hospital who followed these different strategies might therefore both contribute to shortening the average duration of stay, although the efforts of the first cancelled those of the second in their incidence upon the survival rate. Many other speculation are available.

We are not on firm ground in suggesting that the appendicectomies of hospital X, by being there only eight days, have been deprived of something that was vouchsafed in 12 days to their counterparts in hospital Y, and in the absence of firm evidence it is wise to do two things. We should, first, encourage the detailed ward study that alone will enable us to define what we mean by patient care, and, if possible, to assess the extent to which different hospitals provide it. We should, secondly, proceed in the belief that, until evidence can be produced to the contrary, the hospitals that, in the sense of this present chapter, have the shorter average durations of stay are, when comparing like with like, doing no less for their patients than those having the longer. They are, in fact doing a great deal more for those who have not yet been admitted to their wards, by significantly reducing their waiting lists.

The hospital as a learning mechanism

We must ask, therefore, why it is that some hospitals take 12 days to do what others can do in eight days. Since we have no evidence to suggest that the staffs of some hospitals are any more professionally competent than those of others, always excepting the occasional genius whose impression upon a particular hospital outlives him by a generation, there must be some quality of organisation that certain hospitals possess to a degree significantly different from that of others. Table 19 of this chapter suggests that sisters' attitudes, ward-staff stability and duration of stay are, in some way or other, associated with this quality. This is, in our view, the extent to which the system known as the hospital is able to give to the persons who work in it the information, including the interpretations thereof, that they need to do their work. To the extent that a hospital brings rapid, accurate and useful information to those whose effort requires it so will that hospital be a good one; where the

staff of a hospital know what they are supposed to do or are able to find out what to do; or, in the absence of exact information, can with confidence assess the risks that they are obliged to take, this hospital will tend to display two favourable responses. First, the staff will wish to stay there; secondly, the patients will recover more quickly. The organic quality of the hospital is the transparency of its communications.

The adjustment of the student nurse is evidently a learning process, and since she is called a student it is clear to most people that she has a major need to learn. But it is not so evident that the whole hospital is, or should be, a gigantic learning mechanism and that every act of every person in it contains, or should contain, a significant element of learning. If we may repeat an obvious truism, hospitals *are* different from most other institutions because they deal essentially in human life and health, and it is an observable fact that no two patients are alike, even if they are both Lancashire weavers of the same age, build and habits, with hernias clinically indistinguishable: they are not only different persons, both in the eyes of Almighty God as well as in the more prosaic co-ordinates of their domestic lives, but they react differently to the same nurses on the same ward of the same hospital, and these nurses, in turn, react differently towards each of them. Each patient presents a learning problem to each nurse, to each sister; and each nurse presents each patient with a fresh learning problem in her turn. Just as the doctor has to learn what is wrong with the patient, and perhaps rely upon the nurses to help him with his lessons (especially with medical patients), so will the patient have to learn to adjust himself to life on the ward where he is to be treated. The important element in these vital processes of exchanging information, modifying perceptions, integrating previous experiences and so forth is to perceive and to interpret the effects of one's own activities; learning is the process whereby all in the situation, doctor, nurse and patient alike, are able to find the answers to their own questions. Learning, or adjustment, occurs when, by being enabled to follow the train of one's own doubts or questionings, one can recognise or supplement the contradictory and incomplete patterns of one's existing consciousness. Learning does not occur when one is merely to carry out the instructions dictated by a superior, and in a hospital situation it is impossible beyond narrow limits to lay down universal instructions that suit all patients and all conditions, let alone all consultants and all sisters. Learning, which is the key to the continuous adjustment essential for student nurse and patient alike, may be defined

as helping to solve one problem in a way that enables the learner to deal better with the next problem by himself. Every nurse, every sister, every doctor will talk about "good patients" and "bad patients". But they do not at all mean the same thing; to some sisters it is the "good" patient who spends his time in the ward in a state of terrified submission, not daring to ask about his condition, much less to question the logic of his routines.* Such patients must learn little, though they may be subjected to much. To other sisters the "good" patient is one who asks intelligent questions and who, by trying to understand both his condition and his treatment, is able to accelerate the process of his own recovery, not least by being reassured on some of the grosser fears conjured up by his fevered imagination. We have not yet, alas, been able to study the attitudes of patients, but we have little doubt, in the 12-day hospital we have been discussing, the ward sisters would have a view of a "good" patient significantly different from that of the sisters in the eight-day hospital of an adjacent town, and we believe that the patients would reflect and amplify these differences. In terms of the hospital as an organism the "good" patients of the eight-day hospital would be those who wanted, to the best of their ability, to learn how to participate in their recovery and hence who both generated and absorbed information that enabled the nurses and the doctors also to learn; the "good" patients in a 12-day hospital, on the other hand, would be those who conformed to the ethic of unquestioning obedience, and who, in not perplexing the nurses or doctors with questions in their own clumsy and unprofessional language, withheld thereby the information enabling the staff to understand the patients better, to diagnose their conditions more keenly and even to recruit them as intelligent members of the teams pledged to their own recovery.

The social dependence of medical patients

There is no evidence to support these speculations, and they must remain the subjective results of our studies. But there is a significant statistical result, set out in Appendix 7, that lends additional colour to this concept of a hospital characteristic helping to determine the recovery of the patients. Consider again the broad distinction between medicine and surgery; subject to qualifications, it may be said that the physician must rely more upon reading signs than must the surgeon;

* It would not surprise members of the research team to learn that in some hospitals the patients are able to face the prospect of death with greater composure than can the patients in others.

he must at times have at his disposal so fleeting and yet so complex a pattern of information as to be taking decisions almost upon his intuition. There is, for example, little in the diagnostic processes of the physician that compares with so decisive an act as opening a patient to the inspection of the surgeon; when he is trying to treat the same condition as the surgeon, such as a peptic ulcer, there must always remain some uncertainty in the mind of the physician about the progress of the case. There are, on this account, patients in certain diagnostic groups who depend upon communications between physician, nurse and other departments of the hospital to a degree altogether more marked than patients in certain other diagnostic groups. Nor is this all. The progress of the patients in those groups that demand good communications also depends more upon the quality of the nursing; we have shown that the sisters' attitudes to her subordinates reflect the impressions made upon her by her superiors. The solicitude with which the nurses treat their patients is therefore closely bound up with the attitude and communication pattern of the ward; since the pattern on any ward is influenced by a hospital factor, we should expect to find the diagnostic groups treated by the physicians more sensitive to this factor than those treated by the surgeons. In simple language, the average physician is more socially dependent, both for his diagnoses and for the success of his treatment, than is the average surgeon.* We must therefore expect that, in the same hospitals, the lengths of stay of patients in each medical group are more strongly influenced by the hospital factor than are the lengths of stay of patients in each surgical group. In the sample of 12 general hospitals that we have been able to examine, in which information has been given of the length of stay of all patients discharged home, we find that the correlation between medical group averages is significantly greater than that between surgical. In other words, it is possible to demonstrate that patients in the six following diagnostic groups

(i) allergic, endocrine, metabolic and nutritional diseases;
(ii) diseases of the central nervous system;
(iii) diseases of the heart;
(iv) pneumonia;
(v) other diseases of the respiratory system; and
(vi) other diseases of the digestive system

* This is not contradicted by the demonstration in Chapter 3 that length of patient stay of surgical cases in a given diagnostic group in a particular hospital is independent of the consultant.

are more affected by hospital characteristics, for good or for ill, to shorten or to lengthen their stays, than are patients in another six main diagnostic groups treated in the same hospital; these others are, by and large, less dependent upon the social skills of doctors and nurses alike. The other diagnostic groups are:

(vii) appendicitis;
(viii) hernia of the abdominal cavity;
(ix) diseases of the bones and organs of movement;
(x) benign neoplasms;
(xi) diseases of male genitals;
(xii) diseases of female genitals.

This statistical result, set out in Appendix 7, gives support to the claims so often made by the sisters on medical wards that they are the "real" nurses, and that it is their skills, both in observing the patient and tending for his needs, no less than those of the doctors, that make for his recovery. Since the deployment of these skills is strongly influenced by the tone of the organic unity with which the hospital is endowed by its communication system, it follows that, in hospitals where this system is opaque, the progress of all medical patients will tend to be retarded, whatever their diagnostic group; where the communication system is lucid all medical patients will tend, whatever their disease, to progress rapidly. The surgical and other patients, on the contrary, while responsive also to the general tone of the hospital, will not show so great a unanimity, since their fates are more in the hands of the individual specialists by whom they are treated. It is remarkable that this significant result can be found in statistics not specifically prepared for this research, and an eloquent illustration of the tenacity and pervasiveness of these social influences.

CHAPTER 10

THE AUTOTHERAPEUTIC ORGANISM

WE HAVE TRIED to show that the interactions between the nurse, the patient and the hospital in which they find themselves are simultaneously both complex and simple. We repeat the general argument here in order to introduce suggestions for improving our understanding of these interactions, and so, perhaps, eventually eliminating some of the less desirable results that they produce.

The hospital is an organism characterised by anxiety. Anxiety is enhanced by uncertainty. Uncertainty is magnified by communication failure. Unrealistic ideas about one's own role, knowledge, intelligence, status and other features of the self will increase the difficulties of communicating and of being communicated with. Anxiety, in turn, may inhibit communication through fear of threatening consequences. A regenerative process may start: anxiety, uncertainty, communication blockage, *anxiety, uncertainty, communication blockage*, ANXIETY, UNCERTAINTY, COMMUNICATION BLOCKAGE, etc. But if anxiety is present throughout the hospital, so also is the need to learn. Those who do not know, yet must control the world around them, need to learn. But learning depends upon the very exchange of the information that communication failure suppresses; the greater the anxiety the less is the possibility of the learning that alone can remove the anxiety.

The hospital is an organism endowed with many social systems; the official flow of information and reports is but one of these. For the purpose of this essay this system may be regarded as that which keeps the senior staff of the hospital in touch with, and hence, it is to be hoped, ready to treat the events and emergencies of the wards. It is designed by those in authority to inform and instruct those in authority, so that they may perceive from hour to hour what they should do; this official reporting system is for them a learning mechanism, to remove doubts, to increase knowledge, to test impressions, to resolve arguments, to

verify theories, to permit choice, to guide decision, to fortify personal security, to consolidate status, to provide legal evidence and, above all, to respond in whatever way those in charge of it may demand. If this system needs improvement, should it fail to satisfy those who use it as their principal medium of information and learning, it will be amended. In practice, continuous thought will be given by those in authority to these affairs; the system of reporting or of control will be tightened whenever faults are discovered and new checks will be introduced when old methods are found to be wanting. And all this has one main purpose alone: that those in charge may be kept informed and free of doubt, or simply to learn.

There is no corresponding aid for those whose needs to learn are yet greater: the nurse and her patient. Their needs do not require to be repeated in detail; it is enough to say that their entire processes of adjustment to hospital life, whether to stay in the profession or to get better in the bed, are substantially processes of learning, and to repeat that nurses and patients alike do not learn when they are merely told what others think is good for them. Mankind is not just taught; it learns. It learns when, at its own desire and in its own way, it reorganises its own knowledge. The hospital system is not officially designed to make this readily possible for those in subordinate positions, and the extent to which it happens to be possible is the extent to which the hospital is, in this sense, unofficial, informal, unconventional. The task in hand is to encourage certain hospitals to become, in this sense, less official, less authoritarian, less code-ridden.

This problem is also essentially a learning problem. Those within the hospital, or at least a majority of them, must perceive that their subordinates, in order to learn, must be permitted to make unprogrammed demands upon their superiors. These demands, moreover, may be expected to disturb or even threaten; they may come at times inconvenient to the senior; they may question, even if unintentionally, the authority, knowledge, judgement or values of the senior; they may bring to the senior facts or interpretations of facts that he or she would prefer not to recognise; they may suggest a need for change in the senior, change that might be not merely difficult but painful.

It is quite evident that, if such learning is desirable, it will not come about by exhortation. It is of no use merely to point out to any particular hospital that it has an abnormally high nurse wastage rate and a mean length of patient stay significantly longer than the average for others of a comparable class, and that these, in the perception of outsiders, will

be reduced only when communications are improved. For the very communication difficulties that have brought with them these disabling effects will prevent the organism from assessing its own vision; general arguments about nurse wastage will be countered by remarks about the poor quality of local recruits; general arguments about length of patient stay exceeding the average will be met by remarks about the high quality of treatment given in return. These responses we know from experience.

In some hospitals it may be possible to effect improvement by purely institutional methods. Specific administrative steps may help, such as setting up consultative committees between different levels or classes of staff, but they will make progress only if there is a collective will to do so; if they are not supported in this way from the start, they may do positive harm and give existing isolationisms or animosities a new dimension. It might, conceivably, make student nurses or cadets more at home in the hospital to attach each of them to a personal tutor, who might or might not be a member of the teaching staff; there is no reason why a ward or departmental sister should not be the established confidant of half a dozen junior nurses if the staff of the training school is overburdened with official duties. This sytem of nominating a senior member of the staff as the personal adviser or tutor of each junior nurse could, although with difficulty, it is true, be extended to those classes of patient whose stay in the hospital was likely to exceed, say, two whole weeks. It has recently been suggested that the medical staff should undertake these very duties. These and other ways of establishing channels of information designed to help all subordinates to learn will occur to any student of hospital organisation whose attention is drawn to the need.

It is, however, questionable whether by themselves they would produce much improvement. True communication lies not so much in the physical passage of information, as, for example, through telephone systems and on hospital forms carried by messengers, as it lies in the will to communicate and in the desire to know whether the communication is serving the needs of those who seek it. A personal tutor must make a positive effort, personal to herself, not only to find out what is the problem of her student—and the student may not, at the outset, know her problem any more clearly than the patient knows his illness; a tutor must also go to great pains to understand her personal relations to the student and her own motivations behind any advice that she may care to offer her. This self knowledge, if, but only if, it is sought by being desired, can be gained by appropriate exercises in group dynamics; there is no doubt that methods of social psychotherapy, such as are

being developed in America by the National Training Laboratories and in Britain by the Tavistock Institute, have considerable promise in the hospital service generally. Their success, however, will probably be bound up with the future success, if any, of social psychology in the wider field of medical education.

There is, however, an urgent need for therapeutic methods of a more direct, if less sophisticated, nature, merely to advance the cultural preparation by which these exercises in group dynamics must, if they are to succeed, be heralded. It is essential to engender within many of the hospital staffs as they now exist this concept of an organic unity, of a mutual dependence and of the necessity for each individual to perceive more clearly his or her role in the total process. Where this concept of the organism is lacking, and the hospital suffers from parataxis, a major learning effort is called for, but this should be attempted only if there is a common desire to succeed in it. Those in the confused situation should set out to improve their relationships only if they want to do so. This desire is partly an emotional, partly an intellectual drive, and it is impossible to suggest in general terms, that is, without detailed local study, whether it might already exist, or could be engendered, in any particular hospital. Even if, in some way, a collective will to improvement could be identified there might still be substantial problems in canalising it.

Yet our researches suggest that there are, or may be, reasonably straightforward ways of tackling these problems. Our excursions into the methods of general attitude surveys show that interesting patterns of problems can be traced in different hospitals. The data of Table 18 (i), (ii) and (iii) can be rearranged by subject of comment to show that such-and-such a problem may be of great concern to large numbers of persons within the hospital. The problem may involve different departments, from operating theatre to medical records, and different levels of authority, from consultants to porters; whatever it may be, the attitude survey brings it into the open, identifying, too, any anxiety that it may create, with all the emphasis of detail revealed by the aerial photograph of an overgrown Roman encampment. Problems that are brought out in this way are, of course, usually felt by the hospital administration; it would be presumptuous to suggest, for example, that the hospital secretary might be unaware of stresses within the patient-movement system, or that the matron was not already uneasy about her need to fill the nursing establishment with many auxiliaries simply because there was a lack of students. This is not the point. However

painful the problem may be, the hospital is in no position to deal with it unless it has a clear view of the effects it has upon those who suffer under it. For a hospital secretary to say that he is aware of a patient-movement problem is one thing; to take therapeutic action is another. To know that one is unwell is an experience granted to us all at some time or another; to know our precise trouble and what to do to put it right are quite different things. To know that one's village is the site of a Roman settlement is one thing; to trace its ramifications and access roads by aerial reconnaissance is quite another. The attitude survey, if properly carried out, amplifies the impressions of those in authority at the hospital to a comparable degree.

It should not be difficult, given the pattern of anxiety aroused by particular problems at a particular hospital, to seek some kind of cure or treatment for one or more of them. If widespread concern about patient-movement has been voluntarily expressed by a large number of those involved in moving patients, it may be assumed that they feel an emotional drive to help improve the system; our studies show that in attitude surveys the first comments volunteered are about matters on which the staff would like action to be taken. The desire to improve the situation is there, and may add up to a substantial social force; the problem is then to bring this force intelligently to bear. This is the precise field of the operational research worker, with his systematic approach to the delineation of complex problems, with his analysis of statistical data, his measurements of work tasks, his mapping of procedures and his reduction of processes and methods to their elements. It would be an advance of the first magnitude to make freely available to the hospital service the services or advice of a few teams of operational research workers.

But the hospital presents special problems and the operational research worker has still an apprenticeship to serve within the hospital. For within industry, where his success is now widely acknowledged, he is normally the adviser or the agent of the most senior level of authority; he draws his powers from the Board, he makes his recommendations to the Board and, if the Board approve them, it is the Board that put them into effect. In practice, the Board may well seek his advice upon their possible impact, but he is the servant of the policy makers and he is there primarily to improve their grasp. In the hospital the main problems, as they are argued in this essay, are not those of policy; the nurses, the sisters, the doctors, the paramedical staff, the porters and domestics are at one with the hospital management com-

mittee and with each other; all are agreed that their collective task is to help the patients to the greatest extent within their capacity. There is, unlike in most industrial and commercial concerns, no conflict between their value systems; it is over their different perceptions of the hospital problems that the conflicts arise. The confusion is not strategic but tactical; it is not about the tasks that need to be done, but about the manner of their doing. The operational research worker is thus to be regarded as a servant or colleague of the staff rather than as an agent of the superior administration. His task, moreover, is as much to identify the perception that different members of the staff hold of their roles and of their part in the total problem under review as it is to delineate any objective problem itself. It thus follows that a team set on to assist this process of social learning will need to command a significant understanding of the psychology of perception. Nor is this all. As far as possible the collection, interpretation and use of whatever data may seem to be needed for the solution or amelioration of the problem in hand should be carried out by the staff largely affected by that problem. The perception and attitudes of ordinary persons are not altered merely because somebody produces intellectual arguments, however sound, in favour of such alteration; these processes of change, if they are to succeed at all, demand constant interaction between the subject and the surroundings that he is encouraged to reassess. The essence of this interaction, which is the foundation of all learning, is the feedback loop by which the subject becomes aware of his own effect upon the situation, and of the effect that the situation has upon him. It is by this feedback loop that the child learns his mother tongue, by observing, interpreting and employing the responses that are made by those around him to his baby utterances; these early lessons he will remember more tenaciously than the expensive and laborious efforts of later life, when other parties, in the form of teachers, try to impose upon him a foreign language. Indeed, to attempt any fundamental change, or learning, mainly through the medium of a third party or, even more so, to press down upon the subject by the weight of authority alone some new programme of rules intended to modify the behaviour, in the hope that values, perceptions, attitudes and similar determinants of personal conduct are susceptible to purely external manipulation, are alike unprofitable exercises. Only by working through problems that have for the subject a strong emotional content is there any possibility of modifying his or her role-perception and hence of diminishing the amount of parataxis from which the hospital may suffer.

"Working through the problem" is, of course, a complex process; some members of staff may be involved more deeply than are others; some may be well placed to collect or interpret such-and-such facts, others may find it more rewarding to attempt this part of the solution rather than that. In trying to organise the collective desire of those at the hospital to see some part of its system improved, the operational research team will need to secure many agreements from those in authority about the depth and nature of the participation that they might subscribe from the various members of staff. We have a great deal to learn in preparation for this activity; we must, in particular, be realistic enough to recognise that these experiments in social therapy are going to appear as a threat to some senior officers. "If", some hospital secretary will say, "you discover by your attitude surveys—the results of which, in any case, I do not accept, because how can you possibly know whether people are telling you the truth?*—that patient movement creates as much widespread anxiety as you suggest—and you are not telling me anything I don't know already—surely the *right* thing to do is to let the management committee decide what ought to be done about it? After all, they are in charge of the hospital, aren't they? Surely you agree that those in charge must put it right? . . ." It would be impossible to attempt this form of social education in such a hospital until the attitude of the secretary had itself been modified.

Yet, in the opinion of at least one observer, the biggest difficulty is not in the upper ranks of the hospital administration; there are, on the contrary, many people in the Ministry, at the offices of the Regional Boards and among the Hospital Management Committees who would be willing to see radical experiments undertaken in the field of attitudinal change, and to give them their personal approval and even financial support. One of the less visible benefits of the nationalisation of the hospitals has been, in a few imaginations at least, a more structured view of their human problems. The obstacles to success in the kind of programme suggested here are rather our lack of experience in how to apply these methods of social therapy in institutions as fraught with anxiety as are hospitals; and, perhaps more so, the extreme shortage of operational research workers knowledgeable in these affairs. The protests of those to whom all learning, all change, all progress is but a scandalous corruption of some golden past may still attract applause,

* This usually means: "In situations of complete freedom of expression, where there are no fears for the consequences, I personally should not know whether to tell the truth or not."

but there are at many strategic points in the hospital service those who recognise the need for and will support new approaches. It remains to be seen whether their patience will be rewarded throughout the long and difficult research processes necessary to finding those who can undertake these studies, and who themselves must slowly learn the methods best suited to effect the changes.

One thing is clear. The hospitals themselves, personified by their administrators, their doctors and their nurses, must actively join these studies, and members of these professions must learn to conduct surveys, to interpret their findings, to seek the structure of the problems so revealed and to build the programmes of participation by which these problems may be ameliorated. There is no lack of goodwill or of first-class human material; at all levels in the service there are those for whom a co-operative study of this type would be one of the most rewarding contributions to their career development. It is at present a question of how such researches can best be done and how the universities and the hospital professions can co-operate. A hesitating start is being made; it will eventually succeed. But change can be no faster than the hospital service can envision, and no faster than the research workers can themselves stumble forward. We are now only getting ready at the starting post; what race is to be run we do not yet perceive. This we can be sure of: the going will be hard, yet, although some of the spectators will be hostile, the prizes will be well worth winning.

APPENDIX 1

NURSE SICKNESS RATES AS HOSPITAL CHARACTERISTICS

Table 2 of Chapter 1 reveals significant differences between hospitals in overall sickness-absence rates among student nurses. These may be due to differences in levels of medical attention or merely to differences between the reporting or recording systems. It is interesting to see the reported sickness rates increase from A to C and then decrease from C to E. This trend, first up and then down, appears to be significant, or associated with the various hospitals. Is the pressure of disapproval in hospitals D and E such that it is regarded as a weakness for a student nurse to report sick? Table 2 of Chapter 1 may be rewritten in terms of rank orders of sickness-absence rates as Table 20 below.

Table 20

Class of Student Nurse	A	B	C	D	E
(i)	1	3	4	5	2
(ii)	2	1	5	4	3
(iii)	1	2	5	4	3
Sum of ranks	4	6	14	13	8

(Coefficient of concordance = 0·84; significant at 1%)

In our studies at Hospital E we found considerable direct evidence of nurses working under stress; some ought undoubtedly to have been receiving medical attention. Their comment was that it was unendurably depressing to be ill, since the sick room was so miserable a place; and that the nurse obliged to enter it was shown no sympathy and was even denied visitors. It may well be that many student nurses in this hospital eventually responded to a total pattern of treatment, embracing inadequate medical care, by giving up their training altogether. The shoemaker's children grow accustomed to being the worst shod, but there is much to suggest that care of the nurses' health not seldom deserves more attention than it appears to attract.

APPENDIX 2

SIZE-EFFECTS IN HOSPITALS

The hospital service provides some interesting illustrations of size-effects: one of the most curious was noted by Sir James Young Simpson in 1869.

Table 21

The risk of death following the amputation of any of the four limbs, by hospitals according to size, 1869.

Size of hospital by No. of beds	No. of limb amputations	No. of deaths	Deaths per 100 amputations
Private Houses	2,098	226	10·8
Less than 25	143	20	14·0
26–100	761	134	17·6
101–200	1,370	310	22·6
201–300	803	228	28·4
Above 300	2,089	855	41·0

Source: *B.M.J.*, 1869.

These figures were collected when ideas upon cross-infection were perhaps less in the medical mind than they are said to be to-day. But it would be rash to assert that this table and Table 3 of Chapter 1 have nothing in common.

Hospital accident rates

A second size-effect is the trend of accident rates as hospitals become larger.

If, as Freud suggests, accidents fulfil the useful purpose of enabling a person to retire from a situation that he does not like, the very marked rise in the employee-injury rate accompanying the increase in size

Table 22

Number of accidents per million employee hours in American hospitals, 1953, by type and size of hospitals.

Size of hospital by No. of employees	Accident rate by type and size of hospital				
	General	Mental	T.B.	Special	All
Below 10	2·5	6·3	7·5	2·9	2·6
10– 19	2·5				3·2
20– 49	4·1		9·1	9·3	5·0
50– 99	4·5	8·1	7·4	6·7	5·1
100– 249	5·3	7·6	8·0	8·6	6·0
250– 499	6·2	8·7	12·6	9·5	7·3
500– 999	7·4	15·4	16·4	13·4	10·0
1,000–2,499	8·4	21·0	13·8	25·5	13·5
2,500 and over	10·3		—	—	12·4

Source: US Bureau of Labor Statistics.

of American hospitals would seem to indicate poor adjustment to the large community. Note that this table suggests a higher risk to the individual, not merely a greater total number of accidents simply because there are more employees to suffer them.

Hospital absences

The absence, both for sickness and for other reasons, of hospital staffs as a function of hospital size is interesting. No pattern emerges as long as all hospitals are considered together, but when they are considered as two distinct classes, those in which there are more full-time staff than part-time, and vice versa, an interesting pattern is revealed. One of the Regional Hospital Boards which takes a special interest in its statistical services has supplied the data of Tables 23 and 24. There are 60 hospitals in the region with a predominance of full-time staff (Class 1) and 25 with a predominance of part-time (Class 2). The full-time staff in the Class 1 hospitals and the part-time staff in the Class 2 show highly significant size-effects in the absence patterns; there is no such pattern among the part-time employees in Class 1 hospitals nor among the full-time staff in Class 2.

The trends of increasing absence with increasing size are thus highly significant for full-time staff in Class 1 hospitals; and for part-time staff in Class 2 hospitals. The larger hospitals with a majority of part-

Table 23

showing, for all 60 Class 1 hospitals in the same region, distribution of all staff absences by size of hospital, 1960.

Size range by No. of full-time staff	No. of hospitals	Full-time staff			Part-time staff		
		Total staff	Total abs.	Av. abs. per person	Total staff	Total abs.	Av. abs. per person
Above 50	16	3,282	1,030	0·314	652	222	0·340
25–50	22	978	221	0·226	460	164	0·356
Below 25	22	276	54	0·196	150	48	0·320

Table 24

showing, for all 25 Class 2 hospitals in the same region, distribution of all staff absences by size of hospital, 1960.

Size range by No. of staff* employed	No. of hospitals	Full-time staff			Part-time staff		
		Total staff	Total abs.	Av. abs. per person	Total staff	Total abs.	Av. abs. per person
Above 50	4	189	66	0·349	338	209	0·618
25–50	7	143	22	0·154	221	56	0·253
Below 25	14	102	27	0·265	180	39	0·217

* The number of staff for setting the size class is taken to be the sum of all full-time plus half of the part-time staff.

time staff show very high sickness-absence rates; this could be explained on the assumption made throughout this essay, namely, that any effect tending to increase the difficulty of communications tends also to depress morale.

APPENDIX 3

DIFFERENCES BETWEEN LENGTHS OF PATIENT STAY

Table 7 of Chapter 3 suggests that the average lengths of stay of appendicectomies in seven acute general hospitals differ among themselves; the shortest is 8·3 days, the longest 11·6. The significance of the differences can be demonstrated by analysing the variance of the length of stay among the 654 patients into variance between hospitals and variance within hospitals. Table 25 shows the results of this analysis.

Table 25

Source of variation	Sum of squares	Degrees of freedom	Estimate of variance	F
Between Hospitals	1,144	6	191	7·02
Within Hospitals	17,588	647	27·2	
Total	18,732	653	28·7	

So large a value of F could have occurred by random chance about once in a million times; we conclude that the differences between the averages are thus not random and must be assigned to real differences between the hospitals. The multi-sample median test is simpler; the 654 lengths of stay are set out in rank order and the median identified. If there were no significant differences between hospital averages, all hospitals would tend to have half of their sample above and half of it below the median; it is easy to calculate whether any tendency for samples not to be equally divided is significant. In the present sample, χ^2, for six degrees of freedom, is about 81, suggesting very significant

differences indeed. Similar methods can be employed to test the significance of differences between surgeons or wards in helping to determine the length of stay within any given hospital; no such differences could be found in the sample of seven hospitals and 3,000 cases examined.

APPENDIX 4

LENGTH OF PATIENT STAY AS A HOSPITAL CHARACTERISTIC

The following table is formed by putting the entries of Table 10 of Chapter 3 into rank orders, instead of actual days, of duration of stay.

Table 26

showing rank orders of length of patient stay for 14 hospitals in same region, and for nine diagnostic groups; all patients discharged home.

Hospital	Rank order of length of patient stay by diagnostic groups								
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
I	11	3	6	11	11	4	1	1	2
II	13½	13	9	3	1	1	2	12	14
III	13½	12	12½	14	12	13	3	10	9
IV	8	11	7	13	14	10½	4	3	5
V	7	7	10½	8	6	6½	13	7	8
VI	9½	2	1	7	8½	3	8½	2	1
VII	5	4	3½	2	2½	5	10	8	6
VIII	6	6	8	1	5	8	6	11	7
IX	4	1	12½	4	8½	10½	5	9	4
X	2	8	2	6	2½	6½	12	6	10
XI	9½	9	5	10	13	9	11	14	12
XII	12	10	10½	12	10	14	7	13	13
XIII	3	14	14	9	4	12	14	5	11
XIV	1	5	3½	5	7	2	8½	4	3

Identification of diagnostic groups:

(i) Arteriosclerotic heart disease
(ii) Varicose veins
(iii) Hæmorrhoids
(iv) Pneumonia
(v) Bronchitis
(vi) Peptic Ulcer
(vii) Appendicitis
(viii) Hernia Repair
(ix) Diseases of the gall bladder

The sum of the ranks, across the rows, varies from as low as 39 for hospital XIV to as high as $101\frac{1}{2}$ for hospital XII (half marks arise from the sharing of two rank orders in event of a tie). The coefficient of concordance of this array is 0·31. This is significant at one part in a thousand, corresponding to a value of $\chi^2 = 36$ for 13 degrees of freedom; to an unpractised and sceptical eye the table, and Table 10 of Chapter 3, may look quite formless.

The table of rank orders above has, however, been included for another reason. The correlation between rank orders of bronchitis and pneumonia is 0·77, significant at about one part in a thousand, while there is no corresponding correlation between rank orders of appendicectomy and hernia repair. The concordance of the "surgical" groups as a whole is only just significant, whereas that of the "medical" is highly so. This point is dealt with more fully in Chapter 9 and demonstrated again, in a different sample of hospitals, in Appendix 7.

APPENDIX 5

THE MEASUREMENT OF SISTERS' ATTITUDES

1. In Chapter 8 we suggest that the attitudes of ward sisters towards the integration of their student nurses are dependent upon their perceptions of the attitudes of their own superiors rather than upon the sisters' own commitment on questions of hierarchy and status. We base our argument upon measurement and correlation in the following way.

2. Suppose that the 12 attitudes that we attempt to assess are set forth in the following specific statements (see Appendix 5(*a*)):

(i) *about integration and training*

(*a*) Sister can devote time to instructing the student nurse only at the expense of what may be more important demands.

(*b*) Conferences of the ward staff to discuss their personal or clinical problems are not worth the time they would take up.

(*c*) Sisters need not attempt to explain to their subordinates instructions coming down from a higher level.

(*d*) A sister who demands a high standard of work from her staff usually makes herself disliked by them.

(ii) *to hierarchy and status*

(*e*) In planning the ward duty rota, preference for desirable hours and time off should be given according to seniority.

(*f*) The tradition that nursing staff of similar status should keep together at mealtimes is essential to the efficiency of the hospital.

(*g*) Even on a ward with two or more consultants sister should always deal with them herself.

(*h*) Modern developments in clinical practice can succeed only if sister gives more and more time to purely clerical work.

(iii) *to superiors*

(*i*) In the doctor/nurse partnership the credit is unfairly divided.

(*j*) The matron and her administrative staff are no longer as closely in touch with ward problems as they should be.

(*k*) Sisters in this hospital are confident that any solutions to their problems reached at their formal meetings will always be put into effect.

(*l*) Ancillary departments, such as the pharmacy, kitchen or maintenance, seem to sister to be organised for their own convenience rather than that of the wards.

3. Sisters were invited, in conditions of secrecy and non-collusiveness, to state to what extent they agreed or disagreed with these remarks. Five alternatives were offered

(i) strongly agree,
(ii) agree or tend to agree,
(iii) uncertain or no opinion,
(iv) disagree or tend to disagree,
(v) strongly disagree.

Where the opinion suggested closeness, ease of contact or positive personal involvement scores of + 2 or + 1 were awarded; opinions that suggested aloofness, difficulty of contact or personal disengagement attracted scores of − 1 or − 2. Thus, agreement with all statements other than (*k*) would attract negative marks, disagreements would

Table 27

	a	b	c	d	e	f	g	h	i	j	k	l
a		21	27	20	01	03	09	09	23	39	11	15
b			20	19	03	04	−08	−08	11	37	32	26
c				15	02	17	−03	−03	08	39	16	18
d					09	05	05	−07	15	21	12	11
e						19	22	19	07	07	−01	07
f							15	24	−08	03	00	08
g								27	06	06	07	13
h									07	03	−02	06
i										10	31	29
j											21	30
k												41
l												

attract positive marks. The average mark scored by 350 sisters in 15 hospitals was significantly positive in all 12 cases.

4. We correlate the scores of all 350 sisters between pairs of statements; from these twelve pairs we find 66 correlation coefficients. They are in fact 66 drawn from a much larger population of 2,145 correlation coefficients, since not only the 12 statements above were employed but 54 others as well (see Opinion Survey among Ward Sisters, Appendix 5(*a*)). These 2,145 were normally distributed around a mean of + 0·05 with standard deviation 0·10. The particular 66 coefficients in which we are interested are set out in Table 27, in which decimal points are omitted.

5. If T stands for a collective attitude to the integration of the student nurse, H to hierarchy and P to superiors, Table 27 can be expressed as Table 28.

Table 28

	T	H	P
T	0·203 (6)	0·024 (16)	0·209 (16)
H		0·210 (6)	0·043 (16)
P			0·270 (6)

In this table the figures in brackets are the numbers of correlation coefficients, whose average value is also given to three figures. It is easy to show that the means of four sets of these coefficients, namely TT, TP, HH and PP are significantly greater than the population mean of 0·05 and that the means of HT and HP are not significantly different from that population mean. This conclusion depends only upon the distribution of the correlation coefficients as observed; it does not depend upon the significance of any particular correlation coefficient.

6. The significance of these coefficients cannot be read from ordinary tables as we do not correlate normally distributed bimodal variates. Either can assume one of five discrete values only, namely + 2, + 1, zero, − 1 and − 2. But a comparison of these coefficients with the tetrachoric correlation coefficient shows that we are safe in testing their significance by the formula $\chi^2 = nr^2$ used with the tetrachoric coefficient.

Since $n = 350$ a value of $r = 0{\cdot}2$ gives $\chi^2 = 14$ for one degree of freedom. This is significant at about 0·02%. It means the chances of the four statements of TT, whose six coefficients average more than 0·20, not displaying some common factor, but reaching this very significant value by pure chance six times (though there are but 3 degrees of freedom), is negligible. These four statements thus belong to a particular family, as one would expect on the grounds of common sense. Likewise with HH and with PP.

7. The cross-correlations of T and P are of the same average order of magnitude. Whatever it is that is common to all T is no less loaded into all P; and vice versa. The mean of the 28 coefficients in the PP, PT and TT blocks is indeed 0·220, which suggests an inner consistency.

8. The 32 correlation coefficients, on the other hand, of the four H-statements and eight of P and T, average, however, only 0·034. This is not significantly different from the population mean and gives us no reason to feel that H is related to either P or T.

9. We conclude from this that the commitment of the ward sisters to hierarchical beliefs is in no way associated with their attitudes to the integration of their junior nurses. On the other hand, there is a significant relationship between their attitudes to the integration of the junior nurses and their perceptions of their own integration into the larger organisation of the hospital on which they themselves depend.

10. We can demonstrate this dependence in a more direct fashion. Consider the following statements that reveal once more the attitudes of sisters.

(i) Most young people of to-day have had too soft an upbringing.
(ii) Education to-day gives the student nurse too much theory.
(iii) Sisters can devote time to instructing the student nurse only at the expense of what may be more important demands.
(iv) The matron and her administrative staff are no longer as closely in touch with ward problems as they should be.
(v) The medical staff tend to treat suggestions from the nurses with less consideration then they deserve.
(vi) Ancillary departments, such as the pharmacy, kitchen and maintenance, seem to sister to be organised for their own convenience rather than that of the wards.

The opinions of 622 ward sisters drawn from 28 hospitals and two conferences were collected on these six statements, and scored as in two blocks, each of three statements. Scores thus ranged from + 6 to − 6 on each block of three statements for any individual sister. The grouping of the statements into two blocks of three was, of course, the first three statements to measure T; the second three to measure P. All sisters can then be classified into four ranges both by their T scores and their P scores as follows.

(*a*) *attitudes towards T*

− 6, − 5, − 4 or − 3	: disparaging
− 2 or − 1	: indifferent
zero or + 1	: aware
+ 2, + 3, + 4, + 5 or + 6	: solicitous

(*b*) *perceptions of P*

− 6, − 5, − 4 or − 3	: hostile
− 2 or − 1	: aloof
zero or + 1	: responsive
+ 2, + 3, + 4, + 5 or + 6	: forthcoming

The distribution of the 622 sisters by these two sets of criteria is given in Table 29.

Table 29

showing the distribution of 622 ward sisters by impressions of superiors, P, and by attitudes towards subordinates, T.

T, or attitude towards subordinates	P, or impression of superiors			
	Forthcoming	Responsive	Aloof	Hostile
Solicitous	58	42	23	9
Aware	60	47	44	36
Indifferent	32	53	50	41
Disparaging	10	24	36	57

This shows that there is a highly significant association between the impression made upon a ward sister by her superiors and the attitude that she displays towards her subordinates. In simple terms, a ward sister passes on to her nurses the treatment she feels herself to receive

from those to whom she is in her turn responsible. The thesis advanced in this essay is that the mechanism of transmission is the degree of tension or anxiety by which the sister is disturbed; this anxiety is a measure, in turn, of the uncertainty that she feels in her task, and this again depends upon the communication system of the hospital; and in particular upon the confidence that she feels in its responses to her needs. If she can, in other words, on her own initiative, get her questions answered or her problems dealt with, she will help her nurses to overcome their own problems, and so to learn.

APPENDIX 5(*a*)

OPINION SURVEY AMONG WARD SISTERS

The following set of printed statements was put simultaneously to the ward sisters of one particular hospital, generally in the relaxed informality of the sisters' lounge. Collusion was always impossible and anonymity was maintained throughout. The percentages entered under each statement give the responses, averaged over about thirty hospitals, of 622 ward sisters. The average time of completion was twenty minutes; two sisters alone refused to fill in the document. The discussions that followed the exercise were always prolonged, vigorous and, for research workers and sisters alike, highly informative.

In this document there are 66 statements.
None are necessarily true; none are necessarily false. They contain no hidden meanings; there are no catches in them. But you will agree or disagree with them to some extent, perhaps strongly, unless you are uncertain what any statement means, or unless you cannot be sure which way the balance lies. Will you please show under each item what your opinion is by putting a ring round the appropriate letters?

S.A. means Strongly Agree
A. means Agree or Tend to Agree
U. means Uncertain or Undecided
D. means Disagree or Tend to Disagree
S.D. means Strongly Disagree

Example: Sister should always try to be cheerful.

S.A. (A) U. D. S.D.

1. Sisters cannot do much to improve the morale of their ward staffs since they cannot alter the policies of the hospital.

S.A.	A.	U.	D.	S.D.
4%	11%	4%	42%	39%

2. If matron asks a sister to make a change affecting the work of nursing students it is unnecessary for the sister to discuss it with them first.

S.A.	A.	U.	D.	S.D.
4%	20%	6%	43%	27%

3. Most young people of to-day have had too soft an upbringing.

S.A.	A.	U.	D.	S.D.
10%	30%	19%	37%	4%

4. One of the most important characteristics of a good nurse is the respect she shows for the medical staff.

S.A.	A.	U.	D.	S.D.
10%	44%	9%	28%	9%

5. The first principle of good leadership is to issue precise and detailed instructions to one's subordinates.

S.A.	A.	U.	D.	S.D.
56%	35%	3%	6%	—

6. Sister is expected to take the view that her immediate superior is always right.

S.A.	A.	U.	D.	S.D.
2%	18%	11%	50%	19%

7. It is impossible for a sister to run a ward with a large staff without at times appearing to display favouritism.

S.A.	A.	U.	D.	S.D.
—	13%	8%	49%	30%

8. The matron and her administrative staff are no longer as closely in touch with ward problems as they should be.

S.A.	A.	U.	D.	S.D.
20%	33%	8%	29%	10%

9. In planning the ward duty rota, preference for desirable hours and time off should be given according to seniority.

S.A.	A.	U.	D.	S.D.
9%	37%	6%	39%	9%

10. A sister should use her own judgement about what information to give the patient without consulting the doctor.

S.A.	A.	U.	D.	S.D.
5%	33%	8%	38%	16%

11. Ward problems that may concern both matron and the hospital secretary (such as finance or supplies) are generally dealt with quickly and sensibly.

S.A.	A.	U.	D.	S.D.
4%	39%	20%	28%	9%

12. Conferences of the ward staff to discuss their personal or clinical problems are not worth the time they would take up.

S.A.	A.	U.	D.	S.D.
2%	9%	14%	47%	28%

13. Sisters are given every encouragement to contribute items of business to their regular meetings with matron.

S.A.	A.	U.	D.	S.D.
20%	56%	8%	12%	4%

14. The medical staff tend to treat suggestions from the nurses with less consideration than they deserve.

S.A.	A.	U.	D.	S.D.
8%	29%	8%	47%	8%

15. Education to-day gives the student nurse too much theory.

S.A.	A.	U.	D.	S.D.
13%	34%	15%	31%	7%

16. There are times when sister should go out of her way to understand the personal problems of her staff.

S.A.	A.	U.	D.	S.D.
38%	56%	3%	3%	—

17. A sister who wants to get on in her profession must seek frequent changes of hospital.

S.A.	A.	U.	D.	S.D.
10%	28%	19%	38%	5%

18. Parents to-day do not exercise enough discipline over their children.

S.A.	A.	U.	D.	S.D.
23%	47%	19%	10%	1%

19. Sisters in this hospital are confident that any solutions to their problems reached at their formal meetings will always be put into effect.

S.A.	A.	U.	D.	S.D.
15%	39%	20%	21%	5%

20. The tradition that nursing staff of similar status should keep together at mealtimes is essential to the efficiency of the hospital.

S.A.	A.	U.	D.	S.D.
7%	32%	11%	36%	14%

21. Departments like path. lab., X-ray and medical records always have to be chased to give sister the information she needs.

S.A.	A.	U.	D.	S.D.
19%	32%	12%	32%	5%

22. A reprimand is more effective when given in front of others.

S.A.	A.	U.	D.	S.D.
—	—	—	31%	69%

23. Ancillary departments, such as the pharmacy, kitchen or maintenance, seem to the sister to be organised for their own convenience rather than that of the wards.

S.A.	A.	U.	D.	S.D.
11%	31%	13%	37%	8%

24. Sisters can devote time to instructing the student nurse only at the expense of what may be more important demands.

S.A.	A.	U.	D.	S.D.
10%	38%	8%	39%	6%

25. Nurses should not address each other by their Christian names when on duty.

S.A.	A.	U.	D.	S.D.
77%	16%	2%	2%	3%

26. Nurses of all ranks feel perfectly free to seek clarification of orders from the consultants themselves.

S.A.	A.	U.	D.	S.D.
7%	21%	15%	39%	18%

27. Matron should consult the sisters before changing the work routine of the nursing staff.

S.A.	A.	U.	D.	S.D.
54%	43%	1%	2%	—

28. As a matter of principle matrons should always be in charge of hospital housekeeping.

S.A.	A.	U.	D.	S.D.
7%	14%	27%	38%	14%

29. It is essential that even the most junior nurse should know all she can about the diagnosis and treatment of her patients.

S.A.	A.	U.	D.	S.D.
58%	37%	2%	2%	1%

30. The junior nurse makes little real contribution to the work of the ward before well into her second year.

S.A.	A.	U.	D.	S.D.
4%	7%	4%	51%	34%

31. Modern developments in clinical practice can succeed only if sister gives more and more time to purely clerical work.

S.A.	A.	U.	D.	S.D.
4%	14%	20%	39%	23%

32. In this hospital sister would make a recommendation about a patient only if the doctor asked her for it.

S.A.	A.	U.	D.	S.D.
1%	6%	9%	51%	33%

33. Generally speaking, it is undesirable for junior nurses to accompany the consultant on his ward round.

S.A.	A.	U.	D.	S.D.
9%	39%	10%	33%	9%

34. Unquestioned obedience to one's superior is absolutely essential in the hospital.

S.A.	A.	U.	D.	S.D.
19%	38%	9%	28%	6%

35. A marked professional distance is kept between the senior medical staff here and those recently qualified.

S.A.	A.	U.	D.	S.D.
2%	16%	19%	55%	8%

36. If matron wants to make a change affecting the duties of the nursing staff it is a sign of weakness for her to discuss it with the sisters first.

S.A.	A.	U.	D.	S.D.
3%	2%	—	39%	56%

37. Sister should know what the nurse thinks and feels about her work even if she seems to be putting her back into it.

S.A.	A.	U.	D.	S.D.
30%	63%	5%	2%	—

38. Only the senior nurse on duty should discuss the patient's condition with a relative.

S.A.	A.	U.	D.	S.D.
56%	39%	2%	2%	1%

39. Formal meetings of sisters with the senior staff at this hospital seem little more than somebody laying down the law.

S.A.	A.	U.	D.	S.D.
4%	16%	20%	43%	17%

40. Taken over the whole year, sister has very few complaints about getting all the information she needs to run her ward properly.

S.A.	A.	U.	D.	S.D.
7%	60%	16%	15%	2%

41. Discipline is impaired if sister has a personal friend among her ward staff.

S.A.	A.	U.	D.	S.D.
16%	33%	14%	31%	6%

42. The medical committee always ask the sisters what they think about any changes of practice that will affect nursing care.

S.A.	A.	U.	D.	S.D.
8%	43%	17%	26%	6%

43. In the doctor/nurse partnership the credit is unfairly divided.

S.A.	A.	U.	D.	S.D.
4%	17%	20%	52%	7%

44. Ancillary departments, like the laundry, kitchen or engineers', do not always realise that they are there primarily to service the wards.

S.A.	A.	U.	D.	S.D.
20%	44%	8%	24%	4%

45. Even during her preliminary training the student nurse is still given glamourised ideas of her future work.

S.A.	A.	U.	D.	S.D.
4%	18%	10%	58%	10%

46. A good sister will not admit to her staff that she has made a mistake.

S.A.	A.	U.	D.	S.D.
—	6%	3%	60%	31%

47. Most of the consultants seem to treat the other doctors who work for them as fairly equal members of the team.

S.A.	A.	U.	D.	S.D.
6%	73%	10%	10%	1%

48. In this hospital many forms and other returns that do not deal with the patient are superfluous.

S.A.	A.	U.	D.	S.D.
10%	32%	28%	29%	1%

49. It is no longer necessary to insist upon the ward staff using formal titles when working together.

S.A.	A.	U.	D.	S.D.
3%	10%	4%	59%	24%

50. The best sister is often the most unpopular.

S.A.	A.	U.	D.	S.D.
4%	19%	9%	47%	20%

51. Even in a ward with two or more consultants, sister should always deal with them herself.

S.A.	A.	U.	D.	S.D.
7%	39%	8%	41%	5%

52. It does not matter what a nurse is thinking and feeling provided she is getting on with her work.

S.A.	A.	U.	D.	S.D.
1%	8%	5%	63%	23%

53. There are times when the sister should be the first to point out that a mistake on her part has created misunderstanding.

S.A.	A.	U.	D.	S.D.
30%	67%	1%	1%	1%

54. A sister at this hospital would be personally consulted about any proposals affecting her ward, whether coming from matron, the medical staff, the secretary, the engineer or any other quarter.

S.A.	A.	U.	D.	S.D.
24%	51%	8%	14%	3%

55. Ward activity must be regulated for the medical staff's convenience.

S.A.	A.	U.	D.	S.D.
6%	17%	9%	47%	21%

56. A sister who demands a high standard of work from her staff usually makes herself disliked by them.

S.A.	A.	U.	D.	S.D.
3%	12%	7%	58%	20%

57. The hospital situation requires that new instructions should be issued in writing rather than by word of mouth.

S.A.	A.	U.	D.	S.D.
15%	59%	11%	14%	1%

58. The consultants at this hospital all have their little ways of liking their prestige to be acknowledged.

S.A.	A.	U.	D.	S.D.
10%	57%	17%	14%	2%

59. From time to time sister may need openly to question the traditional policies of the hospital.

S.A.	A.	U.	D.	S.D.
8%	61%	18%	12%	1%

60. The medical staff should be more co-operative in choosing times for their ward visits.

S.A.	A.	U.	D.	S.D.
29%	48%	7%	15%	—

61. Sisters need not attempt to explain to their subordinates instructions coming down from a higher level.

S.A.	A.	U.	D.	S.D.
1%	16%	7%	57%	19%

62. Junior nurses should learn about the patient from sister rather than from the medical staff.

S.A.	A.	U.	D.	S.D.
21%	54%	10%	14%	1%

63. The hospital cannot run smoothly unless sister believes that the senior staff are always right.

S.A.	A.	U.	D.	S.D.
5%	18%	13%	53%	11%

64. Student nurses should be taught not to speak to the doctor unless spoken to first.

S.A.	A.	U.	D.	S.D.
5%	29%	13%	45%	7%

65. If junior nurses have any complaints, they should make them through their ward sister.

S.A.	A.	U.	D.	S.D.
23%	63%	6%	8%	—

66. The consultants here bring the junior medical staff into their important clinical decisions.

S.A.	A.	U.	D.	S.D.
10%	64%	21%	4%	1%

APPENDIX 6

SISTERS' ATTITUDES AS HOSPITAL CHARACTERISTICS

[A note on the statistical significance of differences of attitudes between hospitals. (The data is not always drawn from the same samples as are referred to in Chapter 8 and Appendix 5, but the results are typical.)]

1. If we select as indicators of hierarchical commitment the sisters' responses to the three statements:

(*a*) In planning the ward duty rota, preference for desirable hours and time off should be given according to seniority;
(*b*) The tradition that nursing staff of similar status should keep together at mealtimes is essential to the efficiency of the hospital; and
(*c*) One of the most important characteristics of a good nurse is the respect she shows for the medical staff,

we may accumulate the scores of these responses (as in Appendix 5, paragraph 3) and analyse the variance within and between hospitals. The results, for 350 sisters in 15 hospitals, are given in Table 30.

Table 30

Source of variation	Sum of squares	Degrees of freedom	Estimate of variance	F
Between Hospitals	338	14	24·2	5·1
Within Hospitals	1,588	335	4·74	

For 14 and 335 degrees of freedom the 1% and 0·1% significance levels are about 2·2 and 2·8 respectively. There is thus no doubt that

commitment to the opinions expressed in (*a*), (*b*) and (*c*) above is strongly associated with particular hospitals.

2. If we measure attitudes to the integration and training of student nurses by the responses of the sisters to the three following statements:

(*d*) Most young people of to-day have had too soft an upbringing;
(*e*) Education to-day gives the student nurse too much theory;
(*f*) Sisters can devote time to instructing the student nurse only at the expense of what may be more important demands;

we may analyse the scores again as in Para 1 above. The results are set out in Table 31. (This result is for 352 ward sisters in 19 provincial acute general hospitals; this is a more homogeneous sample of hospitals than used to produce Table 30, which included teaching hospitals as well as ex-municipal infirmaries.)

Table 31

Source of variation	Sum of squares	Degrees of freedom	Estimate of variance	F
Between Hospitals	304	18	16·9	2·77
Within Hospitals	2,038	333	6·1	

This result is significant at about 0·1 %, showing that attitudes towards training (as suggested by responses to items (*d*), (*e*) and (*f*)) differ much more between hospitals then they differ among the sisters within them.

3. If, finally, we measure the perception that ward sisters have of the organisation for which they work by their responses to the following three statements (see Appendix 5):

(*g*) The matron and her administrative staff are no longer as closely in touch with ward problems as they should be;
(*h*) The medical staff tend to treat suggestions from nurses with less consideration than they deserve;
(*i*) Ancillary departments, such as the pharmacy, kitchen or maintenance, seem to the sister to be organised for their own convenience rather than that of the wards;

we may again analyse the scores as in paragraph 1. The results, for the same 352 sisters in the 19 hospitals referred to in paragraph 2, are given in Table 32.

Table 32

Source of variation	Sum of squares	Degrees of freedom	Estimate of variance	F
Between Hospitals	264	18	14·7	2·53
Within Hospitals	1,925	333	5·8	

This result is again significant at about 0·1 %, showing that perceptions of the organisation itself differ much more between hospitals than they do among sisters in the same hospital.

4. These three results leave no doubt whatever of the existence of hospital characteristics. Whether we consider the mean commitments of sisters throughout any particular hospital to questions of status and seniority; or their sympathy towards student nurses; or their perceptions of the co-operativeness of those on whom they themselves depend in their own hospitals, there are highly significant differences between hospitals.

5. For the 19 hospitals referred to in paragraphs 2 and 3 above the coefficient of correlation between the 19 pairs of hospital means of

(i) attitudes towards integration of student nurses; and
(ii) perceptions of co-operativeness of seniors

is + 0·601; this is highly significant (1 % = 0·561).

Hence senior staff in hospitals where ward sisters tend to display sympathetic attitudes towards student nurses seem in turn to display co-operative attitudes towards the ward sisters. There is, on the other hand, no correlation between pairs of hospital means involving status commitment as one of the two variates.

APPENDIX 7

DIAGNOSTIC GROUP AND SOCIAL DEPENDENCE

It was suggested in Chapter 9 that hospital characteristics, as distinct from the personal skills of individual members of staff, are likely to influence, for better or for worse, the recovery rates of medical patients more than those of the surgical, since the medical patient is the more socially dependent, both for diagnosis and for treatment. It is said that the physician's trade demands that he be more socially aware and more dependent upon the ideas and suggestions of others than need be the more individualist surgeon. The physician seeks to interpret the signs that may first be noticed by others, the Joseph reading Pharaoh's dream, the Daniel at the feast of Belshazzar; it is no coincidence that, whereas the assistant surgeon was known as the dresser, the assistant physician was known as the clerk. It would be interesting to examine the careers of successful doctor-administrators; according to this theory of social awareness and dependence one would expect comparatively few surgeons to succeed in the highly intuitive business of assessing human motive that is the chief preoccupation of the administrator.

However this may be, we may test the hypothesis of social dependence by examining the records of length of stay of medical and of surgical patients by hospitals. If we consider a set of medical patients in different diagnostic groups in the same hospital, and thus likely to be treated by different physicians, we should expect, if that hospital has a good communication system, all the medical patients, irrespective of diagnostic group, and hence of consultant, to recover more rapidly than they would in a hospital where the communication system was poor. All medical care, both in diagnosis and in treatment, in the one hospital would be more effective than all the medical care in the other hospital; there would, on the other hand, be a weaker "hospital communication system influence", for good or ill, upon the surgical patients.

We show in Table 33 the mean lengths of stay of all the patients from

12 hospitals discharged home out of 12 diagnostic groups, six largely medical and six largely surgical. All hospitals are classified as Acute or Mainly Acute; all are under the direction of the same Regional Board. The coefficient of concordance of the six medical groups is significantly greater than that of the six surgical. Since there are no known tests for comparing directly the significance of two such concordances, Table 34 sets out the arrays of rank order correlation coefficients, together with the sums of these coefficients set out against the diagnostic group, as giving some indication of the factor loadings. It is clear that these are significantly greater among the six medical groups. If the 30 correlation

Table 33

showing for 12 acute general hospitals, rank orders by length of patient stay in six common medical and six common surgical diagnostic groups.

Hospital	Rank orders by length of patient stay											
	Medical cases						Surgical cases					
	OR	P	H	OD	AE	N	A	HR	O	MG	BN	FG
I	1	3	1	1	1	1	1	5	4	3	3½	10
II	2	2	7	4	4	2½	3	1	5	5	5	1
III	3	10	9	8	5	8	2	2	3	2	11	7½
IV	10	8	10	10	3	2½	6	10	2	11	2	2
V	5	1	3	2	7	6	10	6	6	8	9	6
VI	11	12	8	11	8	7	5	9	1	1	8	12
VII	4	7	4	5	2	5	9	7	8	9	12	3½
VIII	6	5	2	7	6	4	12	11	11	6	10	5
IX	9	4	6	3	10	10	8	4	9	4	3½	7½
X	7	6	5	9	9	12	4	3	7	7	1	3½
XI	12	11	11	12	11	9	7	12	12	12	6	11
XII	8	9	12	6	12	11	11	8	10	10	7	9
			W = 0·56						W = 0·38			

Key:

OR Other respiratory diseases
P Pneumonia
H Diseases of heart
OD Other diseases of digestive system
AE Allergic and endocrinal diseases, etc.
N Diseases of central nervous system
A Appendicitis
HR Hernia of abdominal cavity
O Diseases of bones and organs of locomotion
MG Diseases of male genitals
BN Benign neoplasms
FG Diseases of female genitals

coefficients are transformed to Fisher's z, which is normally distributed, the difference between the means of the two sets of six sums is significant at 1%.

Table 34

showing the rank order correlation coefficients of lengths of patient stay in 12 hospitals, by six medical and six surgical diagnostic groups.

	P	H	OD	AE	N	Sum		HR	O	MG	BN	FG	Sum
OR	61	58	70	67	49	3·05	A	57	66	52	38	−03	2·10
P		70	84	33	40	2·88	HR		33	52	14	33	1·89
H			63	50	53	2·84	O			52	11	08	1·70
OD				33	33	2·83	MG				−11	−29	1·16
AE					86	2·69	BN					15	0·67
N						2·51	FG						0·24

In the 30 correlation coefficients of these two arrays, all zeros and decimal points are omitted.

This therefore shows that, at least in these 12 (typical) hospitals there is a hospital influence, for good or ill, upon the progress of the medical patients significantly greater than upon the progress of the surgical. Hospital influences, of course, affect both classes; the surgeons also rely upon communications and upon the support of their nurses. But their dependence, although observable in Tables 33 and 34, is significantly less than is the dependence of the physicians.

APPENDIX 8

DURATION OF PATIENT STAY AND RELATIVE MORTALITY RATES

1. A Regional Hospital Board produced a survey on July 1, 1960, of the disposal of all patients at 14 general hospitals in its region. This survey classified all the patients at the hospitals by both diagnostic group and by disposal, either dead, discharged home, or transferred to another hospital or unit for further treatment or recovery; the data are for the year 1957. Since the survey was initiated, prepared, published and discussed without reference to this present study it may be regarded as an unbiased source of random information.

2. In using this survey to test the hypothesis that some hospital factor may influence the mean duration of patient stay, a factor independent of the disease treated, the data for 11 hospitals only were analysed. One was rejected because the number of cases in certain diagnostic groups was too small (less than 20); two more were rejected because of the high proportion of beds (42% and 80%) allocated to long stay patients.

3. The five diagnostic groups accounting for the majority of hospital deaths were chosen for statistical study. They are:

(i) malignant neoplasms;
(ii) diseases of the central nervous system;
(iii) diseases of the heart;
(iv) pneumonia; and
(v) other diseases of the digestive system.

Between them these five account for just over 70% of all hospital deaths in the sample of 11 hospitals.

4. Table 35 sets out, by 11 rows and five columns, the mean duration of stay for all patients discharged home. The hospitals are placed

roughly in rank order of duration, all five diagnostic groups being ranked separately and the hospital with the smallest sum of its rank orders appearing at the top. AA's rank orders are 2, 1, 1, 3, 1, total 8; LL's 11, 10, 11, 10, 11 total 53. It can be shown that there is a tendency, as apparent in these two hospitals, for rank orders to keep in step; the coefficient of concordance, W, is 0·60 and so high a value as this could have occurred by chance only once in a thousand times. Since we found it at our first attempt it is difficult to believe that it was a random result of sampling. We must assume, on the contrary, that there is a cause tending to influence the duration of stay at any hospital, whatever the disease for which the patient is under treatment at that hospital.

Table 35

showing, for 11 General Hospitals in one Region, mean length of stay in days for all patients discharged home in five diagnostic groups.

Hospital	Malig. neo.	CNS	Heart	Pneumonia	Digest. syst.
AA	21·8	16·4	18·6	15·2	13·8
BB	18·6	17·5	29·0	14·8	15·7
CC	24·4	17·9	25·0	14·2	14·7
DD	24·8	17·7	20·9	16·4	17·2
EE	26·2	17·8	24·2	17·1	16·6
FF	26·6	32·2	27·6	15·9	15·3
GG	23·8	18·9	26·5	16·8	18·4
HH	23·9	17·5	30·8	18·1	19·8
JJ	22·6	19·6	29·2	25·4	19·9
KK	25·7	21·2	30·3	21·9	18·3
LL	33·5	24·7	33·2	22·8	20·6

Source: a Regional Hospital Board's Statistics.

5. It is true that the percentages of beds occupied by long stay patients varies between hospitals. Table 36 presents the figures; these show, for example, that AA has no long stay patients, whereas LL had 25%, or 31 beds out of 124. We have therefore divided the 11 hospitals into two classes; the first four form Class S, with 156 beds out of 1,670 occupied by long stay patients, while the remaining seven hospitals form Class L with 97 long stay beds out of 1,586. Class S hospitals thus have significantly more long stay beds among them; all are in the same hospital, CC.

6. Table 36 also shows the disposal of the patients in these five diagnostic groups. Consider first the transfers to other hospitals or to convalescent units; in all five diagnostic groups the ratio of patients transferred to patients discharged home is greater in Class L than in Class S. The difference is not always significant, but it is always in favour of Class L. It cannot be argued, therefore, that the four hospitals of Class S, taken together, had the consistently shorter durations because they had easier access to discharge by transfer than had the seven hospitals of Class L.

7. Table 36 also shows the relation between the numbers of deaths and of discharges home in each class by each diagnostic group. In two groups, diseases of the central nervous system and pneumonia, Class L has a significantly larger number of deaths than Class S; in the three other diagnostic groups there is no difference between the two classes of hospital. There is thus no evidence to suggest that the hospitals of Class S, with the significantly shorter stay of patients discharged home, has a higher incidence of deaths per 100 admissions. We are dealing here with very large numbers of patients, although it would be interesting to see this analysis for a larger sample of hospitals. For the present, however, the general argument that hospitals which discharge patients home rapidly may in some way be scamping their duty to the patient finds no evidence in the mortality rates of otherwise comparable hospitals. It is, of course, argued throughout this book that, provided the short stay is a *consequence* of that efficiency which derives from good communications, then there is no harm, indeed, every likelihood of benefit, to the patient treated in the hospital which discharged sooner rather than later. Suggestions that one hospital whose mean duration of stay is up to one week less than that of another (comparing like with like) is in some way necessarily depriving its patients of better service do not find support in the evidence, if that service is to be measured by the probability of dying in hospital from one of the five major killing diseases.

Table 36

showing for 11 General Hospitals in one Region, total numbers of beds, and of beds occupied by long stay cases, 1957; and numbers of patients in five diagnostic groups who, in that year, died (b); were discharged home (c); and who were transferred (d) to another hospital.

Hospital	Total	Long Stay beds (a)		Malignant neo.			Dis. of C.N.S.			Dis. of heart			Pneumonia			Other Ds. of D.S.		
				(b)	(c)	(d)	(b)	(c)	(d)	(b)	(c)	(d)	(b)	(c)	(d)	(b)	(c)	(d)
		%	No.															
AA	109	—	—	25	56	9	21	35	—	10	26	1	7	42	1	13	80	2
BB	263	—	—	69	220	26	50	123	11	90	164	6	42	107	4	18	315	6
CC	608	26	156	113	311	23	81	205	27	101	246	7	32	388	6	16	481	10
DD	690	—	—	231	538	71	127	278	99	163	441	59	114	688	33	55	701	14
Totals Class S	1,670	9	156	438	1,125	129	279	641	137	364	877	73	195	1,225	44	102	1,577	32
EE	365	—	—	85	331	59	62	122	26	68	185	42	44	127	13	23	270	47
FF	198	7	14	30	94	24	21	39	10	22	47	10	18	78	5	4	98	6
GG	410	9	37	65	118	14	83	99	28	74	133	12	52	118	15	14	148	6
HH	147	—	—	45	153	41	31	35	12	27	49	8	12	46	8	6	129	35
JJ	190	8	15	30	87	22	23	47	7	28	54	9	5	30	5	9	146	16
KK	152	—	—	31	53	1	23	20	3	15	53	4	4	26	2	7	141	5
LL	124	25	31	44	55	5	22	34	7	28	53	6	11	28	2	6	71	2
Totals Class L	1,586	6	97	330	891	166	265	396	93	262	574	91	146	453	50	69	1,003	117

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