CSP-HSORU
COLLABORATIVE RESEARCH INTO PHYSIOTHERAPY ORGANISATION

Levels of Work in Physiotherapy

Physiotherapy Organisation: 3

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Work, defined as decisions and responsibility, within an organisation, can be described using a number of hierarchically linked levels (or strata). These can be labelled as prescribed output (I); situational response (II); systematic service provision (III); comprehensive service provision (IV); and comprehensive field coverage (V). Sensitivity, skill, judgment and ethics may be required at any level, and no level is inherently better or more valuable than any other. Work at any level may affect work at other levels. Work at any level provides a context for work at levels below, for example through committal of resources or development of plans. Organisational structure requires a clear understanding of the work to be done and the level of that work. Relations between work roles depend on levels. For example, full managerial authority (if desired) is best exercised when the roles are one stratum apart. Physiotherapy organisation must take into account that professional work, defined as the assessment and intervention in a particular case, is stratum II.

IF YOU, the reader, were asked to be responsible for the provision of physiotherapy for the UK population, what would you do? Assuming that you accepted the challenge, you would first need to decide what is meant by 'providing physiotherapy for the UK population'. If you included clinical services and educational services, you would soon realise that it would not be practicable for you to treat and teach single-handedly. At this point, some form of organisation would probably seem inevitable.

The organisational structure would be preoccupying you far more than how to treat Mrs Smith! Nevertheless, you would be aware that if the result of your deliberations did not ensure that physiotherapy of adequate quality was provided for Mrs Smith then something would have gone seriously wrong. Matters of cost efficiency of the service and effectiveness of techniques would also be of concern and so the development of better organisation and treatment methods would also be on the agenda.

The decisions about social* structure and mechanism would depend very much on your understanding of what physiotherapy is, the nature of treatment and of education and a vision of where it is going; all considered within the context of the UK but with an eye to the international scene. Insofar as these images and ideas were incorrect, blurred, or poorly developed, the resultant organisation would prove unsatisfactory — there would be a mismatch between roles, social bodies, or other pieces of social structure which you created and the actual work to be done (Kinston *et al*, 1981).

The task of creating an organisation from scratch is rare. Much organisation arises in a historically conditioned piecemeal fashion, heavily influenced by chance events, intuition and political compromise (Øvretveit *et al*, 1981). An analysis of the continuing or long-term needs of the situation is often regarded as too complex or time-consuming, or simply unnecessary. Short-term expediency and inertia often win the day to the detriment of any control over the development and growth process. However, it is never too late to start thinking about important issues.

The task that faces the reader, then, is to develop an image of the work to be done and the matching organisation; both of which must be generally applicable and widely accepted. Work and organisation, therefore, have to be based on easily understood arguments which can be subject to criticism and modification. It is right that choices between different organisational models and choices within these will continue to depend on intuition and political sense.

Since society is constantly changing, there could be no

* In this article the word 'social' is used to connote human interaction or relations in groups. It is not equivalent to a 'population', eg all individuals with blue eyes.

sense in the idea of a fixed and final perfect organisation of its sub-units, including the NHS. Therefore, it is necessary to build in social mechanisms for reviewing and changing institutionalised arrangements. A developing profession such as physiotherapy will have a particular need to monitor its organisational structure.

Hierarchies of Work in Physiotherapy

One of the frequent criticisms of the work of the Health Services Organisation Research Unit (HSORU) is that it leads to unnecessarily hierarchical arrangements or is excessively managerial (Whittington and Bellaby, 1979). The researchers reject this; they are most concerned to explore any possibilities for organisation and particularly value the exercise of individual freedom within social structures. In any case, HSORU researchers never recommend particular forms of organisation. The problem in the task outlined above, as in the NHS as a whole, is that it is almost impossible to conceive of providing serivces on a national scale without some hierarchical arrangement. If this is so, then the task is to determine a helpful and sensible hierarchy with appropriate relations between the levels to facilitate the work rather than impede it. The sense of outrage about hierarchy stems from the social inequality implicit in the notion. This may become a separate, extremely important issue which can itself be researched.

We have defined work as activity in which part of the external world is transformed by decisions for which a person is responsible. This definition contrasts with sociological definitions in terms of pay or colloquial definitions in terms of physical activity. Consider the following:
When shall I put away the equipment? Leading to putting it away.
Is this patient suitable for manipulation? Leading to manipulative treatment or otherwise.
Which equipment should I order for next year? Leading to submitting an order.
What curriculum is necessary for the students? Leading to design of a curriculum.
How many physiotherapists will the new hospital need? Leading to negotiating for staff.
Where shall we open a new school of physiotherapy? Leading to allocation of capital resources.

Some of these decisions and the associated tasks will appear 'trivial', others 'proper' work and others 'too big' for any particular physiotherapist. It should be agreed that none is unimportant and that all are tasks which should involve or be the responsibility of physiotherapists. Some decisions provide the context for others: thus it is impossible to put equipment away if it has not been bought; and it is impossible to give manipulation in the new hospital if staff are not appointed and paid for. In each case the second decision provides the context for the first. The difference in the 'size' of decisions and the concept of 'context' are the bases of a meaningfully arranged hierarchy. This hierarchy of work to be done needs to be reflected in organisational design.

Many organisational hierarchies do not appear to be based rationally on the work in hand and members of them are unclear where decisions are made. Only one thing is clear, the higher in the hierarchy the more status and pay. Common sense suggests and research confirms that strings of hierarchically-ranked positions, generated mainly for career purposes, rarely relate sensibly to the work to be done. Such organisation is the source of much personal discontent, bureaucratic confusion, work delay and disruption. Analyses of work in a variety of institutions suggest that there is a limited number of hierarchically arranged work levels or strata, and that these provide a basis for helpful organisational arrangements and a rationale for career development (Rowbottom and Billis, 1977; Jaques, 1976).

The crucial feature of the work strata patterns to be described below is that members of the same strata carry similar responsibilities and so can comfortably exert only limited authority over each other. Roles which are one stratum or more apart may allow much stronger authority, for example it seems to be proper to a worker in one stratum that the person working in the next stratum above should have the *right* to have a major say in the worker's appointment, appraisal of his performance, or taking decisions which affect his work as a whole. In subsequent papers we will open up for discussion the forms of authority which seem to be possible or necessary for physiotherapy.

Although prestige and pay may rise with the strata, this is a secondary phenomenon. The strata are 'higher' principally in the sense that the extent of the impact of decisions is greater, more resources are committed, and the time until the results of decision making can be assessed is longer.

The value of this organisational approach is that it considers all the work there is to be done and that its language can be used for the different types of physiotherapy work (clinical, including specialties, educational and administrative) as well as the work of other organised groups. The work strata have been discussed with some hundreds of physiotherapists individually and in groups and the ideas have repeatedly been found relevant and applicable (Tolliday and Jaques, 1978). In later papers we will often draw on the scheme. This paper aims only to present it with examples and to discuss some of the implications.

The model assumes that the work to be done can be ordered in terms of complexity. This ordering is paralleled by the sense of responsibility felt by the person. Seven or eight broad bands of work have been distinguished and five defined in detail. These are called 'strata' because within these bands it is often possible to describe higher and lower levels of responsibility. We shall describe each of the first five strata using the brief labels for the kinds of output required by Rowbottom and Billis (1977) and the suggested maximum time-spans of discretion of Jaques (1976) (table 1).

Table 1: Time needed for longest task at various levels

Stratum	*Output required*	*Maximum time-span*
I	Prescribed output	3 months
II	Situational response	1 year
III	Systematic service provision	2 years
IV	Comprehensive service provision	5 years
V	Comprehensive field coverage	10 years

Prescribed Output

In stratum I, the output expected from the worker can be completely prescribed beforehand so far as it is relevant. If there is any doubt as to what is required, the worker can turn to his superior, or if self-employed to the client or customer, for instructions. Clerical work, driving or cooking is usually in stratum I. It will be clear that this work, like all work, requires knowledge, skills, judgment and (if people are involved) sensitivity, and that its standard will tend to improve with experience. Assessment of priorities between tasks and decisions about

different ways of producing a desired result are also features at this stratum.

In physiotherapy, this is the work that is expected of helpers. For example: 'Assist Mr X to dress after his treatment; walk Mrs Y and stop if she gets too breathless.'

Situational Response

In stratum II, it is not possible to determine the outcome of the work beforehand. Each specific situation must be assessed; further work depends on that assessment. Demands for work, whether from the client or from another agency, are never taken at face value; instead the situation is explored in order to determine the 'real needs'. Whereas the skills at stratum I tend to be technical or manual, those at stratum II are often labelled professional or managerial. Dealing with people is often required.

The practice of physiotherapy proper begins at stratum II. For example, it is clear that a task such as: 'Assess Mr X's mobility after the operation and decide the nature and course of his rehabilitation', requires a physiotherapist. The result of the assessment might be an instruction to a helper or students; this would be a managerial act. If the case was delegated to a junior physiotherapist, the junior's ability and responsibility would be acknowledged and managerial instructions would be inappropriate and unacceptable.

Increasing ability in the practice of physiotherapy does not correspond to an increase in the level of work beyond a certain point. Expertise is the property of a physiotherapist, a particular person, and not of a social role. The only demand in a role is that the holder shall have sufficient expertise, ie minimum standards are laid down. However high these are set, many physiotherapists will be well above the minimum if the standards are realistic. They will not have the additional remuneration or status within the NHS system that they might achieve in private practice. This subject will be discussed in more detail in a later paper.

Systematic Service Provision

At stratum III, the work involves more than just handling a specific presenting situation no matter how expertly. It requires considering the flow of work, ie determining and predicting future patterns and providing for them. This is done by setting up systems, procedures, and policies within which stratum II work can be carried out with best effects. Usually, matters relevant to these systems emerge daily and detailed involvement with specific instances is called for. The larger decisions, however, may be made six-monthly, annually or less often. This sort of work has an administrative character.

A teacher in a physiotherapy school may be expected to plan and organise a subject over a year. This may involve him in ensuring co-operation of other teachers and clinicians, as well as lecturing. The work is administrative but not managerial. In clinical services, the work content of the superintendent role is at stratum III when it includes responsibility for personnel systems, hospital policies and other tasks requiring planning on an annual basis.

The existence of physiotherapists in stratum III reflects awareness of the need for long-term planning. Only work at this level or beyond can lead to and sustain changes in the profession. Advancement of knowledge and development of and provision of services to specified populations are achievements dependent on the higher levels of work. It could be argued that all physiotherapists should practise at stratum III; the issue of clinical roles at stratum III requires further consideration in a later paper.

Comprehensive Service Provision

Stratum IV work consists of providing services to a particular social territory. It involves noting gaps in services and the potential for new developments and providing for them, over two to five years or longer. This requires control of resource allocation, which usually means deployment of personnel as well as finance. Once a need is determined and resources are allocated, then a stratum III approach can be applied to servicing the need.

To use an example from the previous section, in teaching, it will be the responsibility of the head of a school to decide the curriculum and the emphases, before the teacher can proceed to plan the course. In clinical work it may be necessary to balance the needs of the population, the rehabilitation facilities, the medical profession, the physiotherapists and student physiotherapists. Attending to gaps in service or education may require implementation of sometimes unpleasant priorities affecting whole groups of physiotherapists.

Comprehensive Field Coverage

The task given to the reader in the first sentence of this paper was pitched at stratum V. It involves responsibility for the whole field of need within the given social territory. This usually requires a capital budget; much interaction with sponsoring, political or other public bodies; and national or international connections. There are no socially designated stratum V work roles in physiotherapy at present; whether they are desirable or necessary requires research. Work at this level is done at present in a variety of ways under the control of national bodies, or is simply left undone.

Discussion

The theory described above can be used to minimise unnecessary impingement or interference between people working in different strata and to meet the need for definite context-setting. Both are requirements for a smoothly running bureaucracy. The helper wants instructions, but not a running commentary as he works; the practising physiotherapist wants hospital policies to be laid down, but not to be told how to treat people; the teacher wants a curriculum to be set, but not to have his lectures interfered with. Those in higher strata will make decisions which affect those in lower strata unpleasantly at times: the principal may have different views from the teacher about what is important; the superintendent may decide on equipment priorities which do not suit all the practising physiotherapists; the helper may be asked to do a boring task. Consultation and explanation prior to decision-making is useful and conducive to a pleasant working atmosphere; however, the context-setting (higher level) decision is always taken in the light of wider issues than are assessable (or even noticed) by the people affected.

Painful decisions may have to be taken, for example, units closed down or manning reduced, particularly at times of resource cut-backs. Such decisions may feel like interference but result from a choice between a range of painful options. Participation and involvement in painful decision-making need not be simply a matter of personal style. It can be organised. However, requisite social mechanisms to meet this need are as yet relatively undeveloped.

Misconceptions

Work strata are not a solution to anything in themselves: they are a descriptive framework. It would be a mistake to assume that any stratum is inherently better or more necessary than any other. We predict that claiming

that stratum I work has the responsibilities of stratum II work, for example to get more pay, will lead to problems. In any case, issues such as social change and pay are complex and depend on a variety of social factors, not just work stratum.

A common misconception is that a particular role label always reflects the work being done. Because role labels are often poorly defined and abused, the level of work expected varies from post to post. In addition, an individual in a role may have been over-promoted or may have created complex work challenges for himself. This distortion of roles is a frequent cause of discontent or bureaucratic breakdown.

Similarly it is false to assume that any existing hierarchy of appointments, even if supported by a salary structure, can be easily equated with the hierarchy of work strata. For example, if a 'regional physiotherapist' role were created, the work level would be an open question, and to be decided by the work to be done.

Work level is not indicative of personal influence or effectiveness but of socially-defined expectations and accountability. A junior physiotherapist, by judicious complaints and suggestions, could produce many useful changes without being responsible socially. Similarly, a government adviser may have tremendous influence but never carry the burden of implementing advice, or the blame for its consequences.

Grading

Strata reflect discrete jumps in the type of responsibility. As mentioned above, it is possible to discern a continuum of responsibility of more or less the same type within strata. This continuum is often broken up into levels. These will be called 'grades'. Divisions are sometimes made within grades for purposes of pay; these increments usually accrue automatically and relate to time in post.

Table 2 represents a hypothetical example. Work exists at stratum III, there are three grades, IIIa, IIIb and IIIc, and three increments exist in IIIc.

Abuse of grading may be as organisationally damaging as abuse of strata. Again, the appropriate grading of a post is determined by considering the work to be done, rather than the ability of the person who happens to be in post.

Personal Capacity

The ability to work at a particular level is assumed to be personal — a property of the individual in post. Career progression can be socially observed — presumably it should be related to the growth of personal ability. Individuals working below their capacity may complain of feeling restricted and hemmed in. Those working at strata beyond their capacity feel overburdened and tend to retreat, if possible, to activities within their ability. Both distort the systems within which they work. In other words it is hypothesised both that people choose to work at levels which match their capacity, and that organisations will operate most effectively if this criterion is met (Jaques, 1976).

This is a large subject and we will return to it in later papers. At this point, it can be noted that matching can be partly regulated by institutional means. Work is socially defined and therefore can be changed by public decree; and the reservoir of capacity in the profession can be altered by recruitment policies.

Table 2: Division of a stratum

Stratum	*Grading*	
III	a	
	b	
	c	(I)
		(II)
		(III)

Conclusion

In this paper, we have outlined a system of work stratification that can be applied to physiotherapy. It is designed to expedite decision-making and the flow of work by indicating where particular decisions ought to be taken and where natural authority lies. By itself, however, it provides no answers. It has been found useful in the analysis of particular problems faced by physiotherapists. The ideas will be used when we examine the problems of the Senior I grade.

The descriptions of work provided in the paper have been highly simplified. The complexity of such roles as District Physiotherapist will be discussed in more detail in later papers.

Suggestions for Further Reading

Part 3 of Jaques' *A General Theory of Bureaucracy* discusses work, level of work, capacity to work and stratification of work. It gives examples of how these ideas are applied. The chapter by Tolliday and Jaques in *Health Services* is particularly concerned with levels of work in physiotherapy. The paper by Rowbottom and Billis is reprinted in *Health Services.*

Suggestions for Further Discussion

What is the level of work of your role? What level of work can you perform? What level of work were you doing five or ten years ago? What level of work do you think you will be capable of in ten years time? What is it like working with someone at your level? One stratum up? Two strata up? One stratum down? Two strata down? What would physiotherapy be like if 90% of the profession worked at stratum I? At stratum II? At stratum III? At stratum IV?

Any questions, criticisms or comments concerning the papers in this series should be addressed to Steering Group (Brunel Project), CSP, 14 Bedford Row, London WC1R 4ED. All letters will be acknowledged and at an appropriate stage issues raised in them will be discussed in the Journal.

Correction

We regret that the name of one of the authors was omitted from the second paper in this series, 'The physiotherapist as a bureaucrat', *Physiotherapy,* 1981, **67**, 6, 168-170. Dr Kinston and Mr Øvretveit worked with Mr David P G Teager, Principal, North London School of Physiotherapy for the Visually Handicapped.

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