BEING A PHYSIOTHERAPIST

professional role, utilization of time and vocational strategies
ABSTRACT

In a research series carried out between 1984 and 1988 in the county of Västerbotten in northern Sweden, various aspects of the professional role and work of physiotherapists were studied. A variety of research methods were used: questionnaires (n = 163), a time budget study (n = 149), and a qualitative interview (n = 24). Physiotherapy was considered varied and creative, but not well defined or very specific in its objectives. Physiotherapy is still a predominantly female profession, though the proportion of male physiotherapists was increasing. The proportion entering full-time employment in physiotherapy increased due both to the greater number of male graduates and the increasing number of women working full-time. A partial internal division of work between the sexes has arisen. More women than men are employed in in-patient care, while proportionately more men worked outside institutions. Most respondents were firmly in control of their treatment methods, but were somewhat restricted in their freedom to decide whom to treat, and when to terminate treatment. Few had carried out any research concerning treatment and results. The time budget study showed that the treatment of patients took up on average 33% of the physiotherapists’ gross working hours and was the largest single task. Continuing education accounted for 5%, development work for 1% and the remaining occupational tasks for 38%. Occupational area was the most important factor in explaining the distribution of working hours, when other factors were kept constant. Neither sex nor gender markedly affects the carrying out of tasks other than treatment. Nor does professional post particularly affect time utilization other than for administrative tasks. This profession has a double objective: care and service more generally and to provide physiotherapy in particular—both equally important. In order to improve the quality of physiotherapy, and at the same time to extend their own specific, theoretical body of knowledge, a number of physiotherapists have reappraised and extended their concept of the profession to include management and research in their everyday work.

Conclusion: The fact that occupational area exercises such a profound influence on the work of physiotherapists, taken together with the slight influence that professional post has, reveals that the individual physiotherapist must be prepared to play a broadly defined professional role. There seems to be a wealth of skill and expertise available within the profession, which could, however, be more efficiently used if the management and organization of physiotherapy service were better adapted to serve its objectives, and if these were better delineated and communicated.

Key words: Physical therapists, physical therapy, professional competence, professional practice, workload measurement, MCA, qualitative studies, employee orientation.
BEING A PHYSIOTHERAPIST
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Birgitta Bergman

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ABSTRACT

In a research series carried out between 1984 and 1988 in the county of Västerbotten in northern Sweden, various aspects of the professional role and work of physiotherapists were studied. A variety of research methods were used: questionnaires (n = 163), a time budget study (n = 149), and a qualitative interview (n = 24). Physiotherapy was considered varied and creative, but not well defined or very specific in its objectives. Physiotherapy is still a predominantly female profession, though the proportion of male physiotherapists was increasing. The proportion entering full-time employment in physiotherapy increased due both to the greater number of male graduates and the increasing number of women working full-time. A partial internal division of work between the sexes has arisen. More women than men are employed in in-patient care, while proportionately more men worked outside institutions. Most respondents were firmly in control of their treatment methods, but were somewhat restricted in their freedom to decide whom to treat, and when to terminate treatment. Few had carried out any research concerning treatment and results. The time budget study showed that the treatment of patients took up on average 33% of the physiotherapists’ gross working hours and was the largest single task. Continuing education accounted for 5%, development work for 1% and the remaining occupational tasks for 38%. Occupational area was the most important factor in explaining the distribution of working hours, when other factors were kept constant. Neither sex nor gender markedly affects the carrying out of tasks other than treatment. Nor does professional post particularly affect time utilization other than for administrative tasks. This profession has a double objective: care and service more generally and to provide physiotherapy in particular—both equally important. In order to improve the quality of physiotherapy, and at the same time to extend their own specific, theoretical body of knowledge, a number of physiotherapists have reappraised and extended their concept of the profession to include management and research in their everyday work.

Conclusion: The fact that occupational area exercises such a profound influence on the work of physiotherapists, taken together with the slight influence that professional post has, reveals that the individual physiotherapist must be prepared to play a broadly defined professional role. There seems to be a wealth of skill and expertise available within the profession, which could, however, be more efficiently used if the management and organization of physiotherapy service were better adapted to serve its objectives, and if these were better delineated and communicated.

Key words: Physical therapists, physical therapy, professional competence, professional practice, workload measurement, MCA, qualitative studies, employee orientation.
The thesis is based on the following papers, which will be referred to in the text by their Roman numerals:


II: Bergman B. Professional role and autonomy in physiotherapy: A study of Swedish physiotherapists. Scand J Rehab Med (accepted for publ.).


V: Bergman B. Vocational strategies among physiotherapists: A qualitative study (submitted for publ.).
INTRODUCTION

Since 1979, when the school of physiotherapy in Umeå was established, I have been involved in the training of future physiotherapists. Besides lecturing I have participated in the administration and planning of the physiotherapy curriculum, based on the central curriculum stipulated by the National Board of Universities and Colleges. From my teaching position I became interested in what constitutes physiotherapy knowledge and in the relevance of physiotherapy education to the needs of physiotherapy practice.

In order to investigate the demands placed on physiotherapists, in relation to their basic training and continuing professional education, a national survey was carried out (Bergman & Sundelin, 1982). A total of 416 physiotherapists, who graduated between 1977 and 1979, participated, of whom 84 per cent were women. About half (52%) of the physiotherapists felt their training to have been very good/good for their work tasks, though as regards their competence in physiotherapy treatment less than half of the respondents (42%) deemed it to be very good/good. By comparison, more than 90 per cent judged their competence in anatomy to be very good/good, as did about 70 per cent in physiology and other medical subjects. The result of that study revealed a discrepancy experienced between the training in physiotherapy and the actual needs of physiotherapy competence. The reason for this seemed to be the lack of a professional theoretical framework based on the actual needs of physiotherapy- a specific professional body of knowledge- a finding that has been previously noted by other authors (Hislop, 1975; Bromley, 1983). These results gradually led me to conduct a number of studies, in which both theoretical references and methodology have been varied to suit the different aspects of the research.

Physiotherapy, art and science

In 1975 Hislop stated that physiotherapy is knowledge, clinical science, and the reasoned application of science to human beings in real need of help. In her opinion, physiotherapy was developed to provide a service for those suffering physically handicapping conditions, and having its source in physical education with its knowledge of movement and exercise. She, like other authors (Peat, 1981; Dyer, 1982; Williams, 1986), regard physiotherapy as an intellectual handicraft, including both a scientific and an artistic dimension- both equally important.

Physiotherapists are, however, required to base and justify much of their practice on personal, anecdotal observations (Peat, 1981; Steffen & Meyer, 1985; Bohannan & LeVeau, 1986; Campbell, 1987). In their study concerning the notes on and outcome of physiotherapy, Steffen & Meyer (1985) found a substantial gap between how the therapists perceived their progress notes and outcome and what was the objective evidence: unlike most physiotherapists, two expert assessors were unable to discern any evidence of functional improvement in nearly half of the medical records they analysed. Physiotherapists have also been accused of being more interested in techniques and treatment modes and in approaches to treatments than in the analysis of problems (Shepherd, 1980). Such circumstances indicate that there are difficulties in developing a reliable and specific, theoretical body of knowledge. Moreover, Peat (1981) makes an assumption that physiotherapy practice is balanced on a small and narrow base of physiotherapy knowledge, supported by disciplines outside of physiotherapy and by information generated by others for
purposes unrelated to those of the physiotherapists. The focus, he wrote, of the original questions often differs from that which would be asked by physiotherapists.

''Although the research literature in psychology, physical education, physical medicine and the basic sciences is rich in pertinent findings and ideas that physiotherapists would be wrong to ignore, one vital point should be remembered: the focus of the original question often differs from that which would be asked by the physiotherapist.'’ (Peat, 1981, p. 172).
The research questions concerned are in broad outline: Who are the physiotherapists, what do they do, and why. These questions must, in my belief, be examined before it is possible to develop a specific professional body of knowledge. I consider these questions to be related to the concept of role and to the ideas on professionalisation, and also to ideas on sex and gender as related to occupational patterns. As these concepts or ideas were used for framing and planning the research they will be presented in brief.

- My first intention was to describe the work situations of male and female physiotherapists and to analyse their conception of the professional role and occupation and its implication for their work as related to the process of professionalization, and also to sex and gender.

- Subsequently, I wished to examine the way physiotherapists utilize their working hours, and to identify and study factors affecting the allocation of their working time.

- Finally, I wanted to gain an understanding of the ideas and beliefs on which physiotherapists base their work.

**Theoretical concepts**

The concept of role

Role theory has been described as a body of knowledge and principles that at one and the same time constitute an orientation, a group of theories, loosely linked networks of hypotheses, isolated constructs about human functioning in a social context, and a language system which pervades nearly every social scientist’s vocabulary (Shaw & Costanzo, 1970, p. 326). There exist two main streams known as the structural and interactionist approaches to role theory (Turner, 1985). In the structuralist’s view, roles and norms are treated as established social phenomena, whereas the interactionist’s interpretation of roles and role behaviour focuses on the meaning given by the individual to those acts.

The definition of role used in the present research is role as “the normative expectation of situationally specific meaningful behaviour” (Joas, 1985, p. 44). In the perspective of role theory, selective recruitment, long formal training, written ethical codes and common expectations from other occupations and society at large create fairly uniform behaviour in any professional group, although individual personalities contribute to variations in how the professional role is seen and played (Shaw & Costanzo, 1970; Hardy & Conway, 1978; Turner, 1985; Joas, 1985). The concept of role was simply used as a tool with which to structure and describe the professional role of the physiotherapist (cf. Agriest-Johnson, 1980; Jacobson, 1980; Grannis, 1981; Sotosky, 1984; Schwertner et al., 1987)- a role conception — in which both the individual’s cognition and perception of what a role consists of in terms of functions, obligations, positions and rights are involved.

Profession and professionalization

The study of professions has a long tradition in the social sciences (Weber, 1970 (1919);
Physiotherapy is sometimes classified as a 'para-profession' or a 'semi-profession', implying that it has not yet been accorded full professional status and is still subordinate to medical practice (Miles-Tapping, 1985; Sim, 1985). Medical practice, on the other hand, is often referred to as an ideal type of profession (Parsons, 1964, pp. 428 ff).

The majority of employees in the health care sector are women, yet the best paid, most prestigious and influential positions are generally held by men. The professionalization of traditional female jobs within this sector may therefore be regarded as an attempt to achieve equal status and greater recognition on the terms of the male establishment. Through professionalization, with emphasis on more formal education based on research and theory, the demarcation of responsibilities, and a professional monopoly over certain tasks, several occupational groups within the health sector are trying to enhance their prestige and hence gain increased influence and better wages and working conditions. Waerness (1984a), however, writes that this implies that some 'unqualified' tasks must be sorted out and handed over to less skilled labour, ultimately females, in order that the skills of the professionals may be more effectively used. Professionalization, in her opinion, contributes to a de-feminization of previous female jobs: i.e. the occupational role requires fewer of the qualities that have traditionally been ascribed to women, and an increase in the proportion of men in the managerial and research positions. “Person-orientation” is believed to be less important for male than for female employees (Waerness, 1984a).

The professionalization of physiotherapy as an occupation has attracted considerable interest in recent decades (Hislop, 1975; Mercer, 1980; Agriesti-Johnson, 1980; Peat, 1981; Dyer, 1982; Campbell, 1983; Dahle, 1984a; Bellman, 1985; Sim, 1985; Miles-Tapping, 1985; Calder, 1986; Handscombe, 1986; Williams, et al., 1986; Jackson, 1987; Ljunggren, 1987; Ramsden, 1987; Werner, 1987; Bjørke, 1988; Jensen, 1988; Miles-Tapping, 1989). The discussion is primarily concerned with the growth of the specific and theoretical body of knowledge and the increase of professional autonomy in order to define occupational practice. Sim (1985), however, states that physiotherapy today manifests many of the attributes connected with a profession: an ethical code, an incipient specific and systematic body of knowledge, and a discernible shift towards a greater degree of clinical and managerial autonomy.

Professionalization is generally pictured as a dynamic process by which an occupation moves along a continuum toward a professional role. Certain core characteristics or values are said to determine where on that continuum the occupation lies. The concept ‘profession’ is variously defined, but there is substantial agreement about its general dimensions: a specific and systematic body of knowledge, service orientation, distinctive ethics, and autonomy (Larson, 1977). In addition, Hellberg (1978) portrays a profession as an occupational group monopolizing a specific body of knowledge, which is perceived as essential for society and which constitutes the basis of the monopoly of certain occupational positions. Moreover, for a profession to obtain such an occupational monopoly, Hellberg (1978) states that the professional interests must hold the occupational group together, and clients must be willing to ascribe professional status to that occupational group. Abbot (1988) describes ‘the system of professions’ as a means of using, structuring, and controlling expertise in society. Professions are, in his opinion, somewhat exclusive groups of individuals applying rather abstract knowledge to particular cases (p. 318). This focus implies that trends in any profession affect others, and he declares that there
is a case of competition through abstract knowledge. He concludes that wide differences in structure and knowledge characterize the world of experts, and that professions both create their work and are created by it.

In this thesis the concept of profession and professionalization are used to describe and discuss physiotherapy as related to professional knowledge, autonomy, and expertise.

Sex and gender and occupational patterns

The effect of sex and gender on occupational patterns may be discussed from the idea that in a work-place with both men and women, either integration or segregation can occur (Forsberg et al., 1986). Integration means that the labour market would be dominated by concurrent competition between men and women over equal jobs. Segregation on the other hand, means polarization of jobs between the sexes. Feminization, i.e. a growing number of women in a previously male occupation, is sometimes used as a measure of down-qualification (Forsberg et al., 1986). An increasing number of men in a previously female occupation would thus be termed 'masculinization' entailing integration or segregation, and with a possible up-qualification of the profession.

Previous research has shown that sex or gender strongly affects occupational patterns and that it is mostly a case of segregation (Levitt, 1977; Gamarnikov, 1978; Phillips & Taylor, 1980; Murgatroyd, 1982; Dahle, 1984b; Holter, 1984; Lorber, 1984; Baude et al., 1985; Fürst, 1985; Lindgren, 1985; Florin, 1988; Wikander, 1988). Occupations dominated by either sex can thus be described as 'female' or 'male'. Men and women often work in different types of occupations. Occupations within the health care are to a great extent differentiated by sex (Levitt, 1977; Gamarnikov, 1978; Murgatroyd, 1982; Gustavsson & Lantz, in Baude et al., 1985). For instance, most physicians are men, whereas the majority of the remaining health care providers are women.

When carrying out our study on education and professional demands on physiotherapists (Bergman & Sundelin, 1982) another interesting finding emerged: Earlier this century, male and female physiotherapists had a joint training program. From 1934 to the early 1960s, however, male physiotherapists had first to become instructors in physical education, in order to qualify (Parliamentary resolution no.269, 1934; SOU 1935:52, p. 357). This resolution was attributed to employment policy; there was a great demand for female jobs in the 1930s and hospital care was being expanded. Moreover, physiotherapy in the
hospital setting was at that time considered better suited to women than men: Three months of experience as an auxiliary nurse was required for entrance to physiotherapy training, and that position was considered to be for females only. Consequently physiotherapy became a predominantly female profession for a long period of time and this circumstance is believed to have had a profound influence on the professional role and work of physiotherapists. In the 1960s this extra requirement for male students was abolished (Svensk Författningssamling 1960, No 231) and the proportion of male applicants increased. This in turn has probably affected both professional role and work, and such effects ought to have become evident and amenable to study by the middle of the 1980s.
METHODS

Study population
All physiotherapists working in the County of Västerbotten (Fig. 1) in northern Sweden at the time of the investigation constituted the population for studies I—IV. Although they were not randomly selected, our sample was similar to the population of Swedish physiotherapists concerning working hours and occupational area. While the National number of males was 11 per cent, our sample contained approx. 25 per cent. However, among the new recruits to physiotherapy in 1985, 22 per cent were men more similar to the one in our sample. Also, the physiotherapists in Västerbotten were younger than in Sweden as a whole (SCB 1986). The selection was made from a theoretical as well as a practical point of view: the studies form part of a series of investigations concerning physiotherapists and their work, and Västerbotten County, having approximately 245 000 inhabitants, was found to be a suitable area for such a study. In study V a number of strategically selected informants were chosen to form the study population.

Figure 1. Map of Sweden showing the County of Västerbotten.
The study of the physiotherapists's work situation and professional role (Papers I and II)

All 178 physiotherapists working in the Västerbotten region in March 1984 constituted the study population. A total of 163 (92%) actually underwent investigation, of whom 124 (76%) were women. Two persons reported leave of absence as a reason for not returning the questionnaire, and 2 were on sick leave. The remaining non-respondents had similar proportions of men and women, amounting to 6 per cent.

The time budget study (Papers III and IV)

Of all the 194 physiotherapists working in Västerbotten County between August and October 1985, those who were on duty during the particular weeks studied constituted the study population: 149 subjects in all, of whom 109 (73%) were women.

Sixteen persons (8%), 10 women and 6 men, declined to participate in the study; about half of these gave reasons for not participating such as "shortage of time", "about to take up a new position", and "do not want to work with a stop-watch". The non-participants corresponded fairly well to the population at large, as far as age and sex- and also occupational area are concerned. A number of respondents (n = 29) were absent from work all the week in question and are therefore not included in the study. Most of the 29 were on vacation or off-duty for other reasons (n = 20). The remainder were on sick leave. There was a close correspondence between the factors studied among the physiotherapists on, off, or partly off duty, regarding occupational area, professional post, working hours, sex, and age.

The qualitative interview (Paper V)

A total of 24 physiotherapists, who had between 2 and 38 years of professional experience, made up the study population. The physiotherapists were specially selected to maximise the representation of the various aspects within the field of physiotherapy. Thus, in spite of a heavy numerical dominance of females in the profession, 14 female and 10 male physiotherapists were chosen. All informants worked in or near the university town of Umeå.

Instrument and procedure

The study of the physiotherapist's work situation and professional role (Papers I and II)

A questionnaire was composed including 39 questions, both closed and open-ended. The questions concerned the physiotherapist's sex, age, family relationships, year of graduation, occupational area, working hours, and educational background. Furthermore, a number of questions were asked concerning their job expectations, professional role, role conflicts, professional norms, characteristics of the physiotherapy profession, and professional power and influence. The physiotherapist's opinion of the character of the physiotherapy profession, professional norms, and status of four medical occupations were measured on bipolar, decimal scales, with the extreme statements concerning the actual situation at either end of the decimeter line.
Each physiotherapist was mailed the questionnaire together with a reply envelope and an introductory letter setting out the aims and objects and indicating the estimated time for filling in the form (45 minutes).

**The time budget study (Paper III and IV)**

Work sampling was used as a method to collect information on how much time the physiotherapists allocated to different work activities (Barnes, 1966; Cercone, 1978; Conine & Hopper, 1978; DiPiro et al., 1979; Mannisto, 1980; Allen, 1983; Domenech et al., 1983). A time budget form was constructed, developed from and very similar to the one used by Allen (1983) in Canada, but adapted to Swedish conditions. Eleven pre-coded work tasks, including 'other activities' were used. Space for individual comments was provided. Moreover, the form contained questions on age, sex, professional post, working hours, occupational area, week-day and date. Each of the week-days was divided into units of 30 minutes, and for each unit a stop time was noted. Each subject was given randomly distributed times in the interval between 1 and 30.

Attached to the form was a stop-watch and detailed instructions on how to use it and how to fill in the form. The physiotherapist was instructed to start the workday by turning the stop-watch to the first given random time. When the stop-watch signalled, she/he was instructed to indicate what exactly was being done at the time and immediately to turn the timer to next random time. The maximum number of notations per day was 18.

**The qualitative interview (Paper V)**

Data were collected by means of individual interviews. Qualitative methodology was used (Glaser & Strauss, 1967; Eneroth, 1984; Miles & Huberman, 1984, a & b; Duffy, 1985; Leininger, 1985; Silverman, 1985; Schmoll, 1987; Shepard, 1987; Hughes & Månsson, 1988; Repstad, 1988). Influenced by ideas from the authors mentioned, an interview-guide was framed, including the following topics:

1. What the respondent thought about physiotherapists spending on average 33% of their gross working hours on patient treatment, but only 1% on research and developmental work.
2. What the physiotherapist wants to achieve with the physiotherapy.
3. The various functional categories of the physiotherapists.
4. Requirements, rights, and duties of the physiotherapist.
5. The physiotherapist's professional knowledge and competence and the utilization of such.
6. Research and developmental work.
7. Autonomy and professionalism.

(Originally there was a question on male versus female physiotherapy, but this topic was not included in the analysis as quite a few physiotherapists abstained from making any suggestions.)
Statistics and data analysis

The study of the physiotherapist's work situation and professional role (Papers I and II)

Data are expressed as relative frequencies and means with standard deviation (SD). Differences between sub-groups were tested by the chi-square method, using the SPSS statistical program (Nie et al., 1975). An unpaired t-test was used to test means. The level of significance applied was 95 per cent.

Some variables were dichotomized to simplify analysis and presentation. The occupational areas were divided into non-institutionalized (NI) and institutionalized/partially institutionalized (IPI) care. NI care includes primary health care, occupational health service, private practice, preventive care, and sports medicine. IPI care includes in-patient somatic/geriatric care, psychiatric care, and pediatric care, and embracing the care of the mentally retarded. The physiotherapists were divided into two groups according to year of graduation, one from 1934 to 1979, and one from 1980 to 1984. We chose 1980 as a break-point because we assumed that any effects of the upgrading of physiotherapy training to university level in 1977 ought to have appeared by then.

The time budget study, part I (Paper III)

One-way analysis of Variance in the SPSS program was used to test the differences in mean time between different sub-groups of physiotherapists (Nie et al., 1975). The level of significance applied was 95 per cent.

The allocation of work-time was studied in relation to

1) external factors, connected with one's occupation: occupational area, working hours, and professional post;

2) personal factors: sex and age. To simplify presentation, the work tasks were classified into five principal categories: patient treatment, other work (meetings/conferences, administration/records, active preparation, teaching, conferring, other tasks, specified or not specified), transport (walking or travelling), vocational training (continued education and development work), and non-work (off duty and lunch/coffee).

The time budget study, part II (Paper IV)

To analyse the data, a Multiple Classification Analysis (MCA) in the SPSS system was used for causal interpretation (Andrews et al., 1973; Nie et al., 1975; Allard, 1980). The dependent variables were the mean time utilization of various occupational tasks represented in seven categories: Patient treatment (33%), individually or in groups; Teamwork (17%) (meetings/conferences, teaching, conferring with colleagues, etc.); Administrative tasks (13%) (administration/records, active preparation); Other tasks (8%) (non-specified, or specified, such as servicing equipment, cleaning, visiting patients in their homes or work places, etc); Vocational training (6%) (continuing education and development work); Transport (6%) (travelling or walking); and Non-work (17%) (lunch/coffee, and occasional hours or days leave of absence from work). The factors were: Occupational area (somatic/geriatric care, psychiatric care, pediatric care including care of the mentally retarded, primary health care, occupational health service, and private practice/other area: preventive care and sports medicine); Professional post (chief, senior...
physiotherapist, and physiotherapist): *Working hours* (full and part-time); and *Sex*. Age was excluded as it does not generally affect the distribution of work activities.

The following measures were used:

*Eta*, a coefficient which gives an indication of the effect of each factor on the variance in the dependent variable, when no control is made for the other factors.

*Beta*, a coefficient which gives a measure of the same effect when other factors are kept constant. This gives an indication of the relative importance of each factor for the allocation of work time.

*R*\(^2\), the multiple correlation coefficient, is a measure of the overall variation in the dependent variable which has been explained by the factors included in the model. Thus, it gives an indication of the ability of the particular set of variables to explain the variation in the allocation of time.

The adjusted empirical, arithmetic averages for the dependent variables, where the effects of the other factors have been controlled for and eliminated. Higher-order interactions were not calculated, as in an MCA where several non-metric factors are involved the interpretation of such interaction effects are problematic (Nie et al., 1975, p. 413). The levels of significance used were 99.9% (***) , 99% (**), and 95% (*).

The distribution of working hours differed significantly between the different weeks studied. Thus, *period of time* was introduced as a covariate in order to control for the effect of period of time on the distribution of work-time spent on various tasks.

**The qualitative interview (Paper V)**

The data were analysed qualitatively, and the analysis was generally done in the way described by Miles & Huberman (1984a; 1984b). It includes basically three phases of analysis: 1) data reduction, including coding, selection, focusing and simplifying the data; 2) data display, involving descriptive and explanatory word matrices; 3) conclusion-drawing and verification. The information was summed up and presented by the so-called "ideal-type" method (Weber, 1949; Eneroth, 1984). Using this method, one tries to catch the essential, the typical thing about a number of cases, without charting all its characteristics.
RESULTS AND DISCUSSIONS

Masculinisation and professionalisation of the physiotherapy profession (Paper I)

The majority (81%) of the 163 respondents were either married or cohabiting. Each had on average 1.3 children. The mean age was 37 years for the women, 34 years for the men; range 49 (21—70) years. The proportion of male physiotherapists was increasing, comprising 38 per cent of the group that graduated from 1980, compared with 15 per cent of those earlier graduated. The relative frequencies of male and female physiotherapists concerning age, year of graduation and working hours are displayed in Table I.

Table 1. Relative frequencies of male and female physiotherapists concerning: Age, Year of Graduation, and Working hours

<table>
<thead>
<tr>
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<th>Women</th>
<th>Men</th>
<th>Total</th>
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<tr>
<td></td>
<td>n=124</td>
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<td>n=163</td>
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<tr>
<td><strong>Age in years</strong></td>
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<td>20—29</td>
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<tr>
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<tr>
<td><strong>Year of Graduation</strong></td>
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<tr>
<td>1934—1979</td>
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<td>38.5</td>
<td>61</td>
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<tr>
<td>1980—1984</td>
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<tr>
<td>No given</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Most respondents were working in in-patient somatic/geriatric care (34%) and in primary health care (27%). A significantly greater proportion of men (72%) than women (39%) worked in NI care. There were also significant differences between men and women regarding occupational area, in relation to year of occupation. All but one man (93%) who had graduated before 1980 worked in NI care, whereas the women who graduated in the same period were almost equally divided between NI care (47%) and IPI care (53%). Table II shows the relative frequencies of male and female physiotherapists in IPI and NI care as related to year of graduation.

A total of 58 per cent of all physiotherapists worked full-time. A greater proportion of men (85%) than women (50%) did so. However, the proportion of full-time workers increased to 86 per cent among those graduated since 1980, from the earlier 41 per cent. This was partly due to the increase in full-time working women from the earlier 35 per cent to 82 per cent, and partly to the increased number of men in the profession.

The most frequent reasons for entering the profession were: ‘a wish to work with people’ (32%), ‘an independent and free occupation’ (19%), ‘interest in sports’ (13%), and ‘the labour market’ (11%). Almost two-fifths (37%) of the physiotherapists who graduated before 1980 reported ‘a wish to work with people’ as their prime motivation, compared with 24 per cent of those who had graduated since 1980. For the latter group ‘an independent and free occupation’ was the main reason (27%), though closely follow-
Table II. Relative frequencies of male and female physiotherapists in institutionalized/partly institutionalized (IPI) care and non-institutionalized (NI) care in relation to year of graduation

<table>
<thead>
<tr>
<th>Occupational area</th>
<th>Year of graduation</th>
<th>1934—1979</th>
<th>1980—1984</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women %</td>
<td>Men %</td>
<td>Women %</td>
<td>Men %</td>
</tr>
<tr>
<td>IPI care*</td>
<td>53</td>
<td>7</td>
<td>72</td>
<td>42</td>
</tr>
<tr>
<td>NI care**</td>
<td>47</td>
<td>93</td>
<td>23</td>
<td>58</td>
</tr>
<tr>
<td>No area</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
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</tr>
</tbody>
</table>

N 85 15 39 24 163

A significantly larger proportion of men than women worked in NI care (Chi-square 10.616, p = 0.002). A significantly larger proportion of men than women worked in NI care, in relation to year of graduation, 1934—1979 (Chi-square 9.207, p = 0.003); 1980—84 (Chi-square 5.794, p = 0.02).

* In-patient somatic/geriatric care, psychiatric care, paediatric care.

** Primary health care, occupational health service, private practice, preventive care, sports medicine.

ed by ‘a wish to work with people’ (24%). The belief that physiotherapists were in great demand increased from 6 to 19 per cent. There were differences between female and male respondents regarding their reasons entering the profession. A total of 37 per cent females vis-à-vis 15 per cent males reported ‘a wish to work with people’ as their principal reason. A ‘good labour market’ was the principal reason for some men (26%), but was rather unimportant among women (5%).

The physiotherapists were asked to rank the three most prominent characteristics of an ideal physiotherapist. Following the ideas of White (1984) and Sim (1985) on a possible division of a profession into two parts according to professional values, we dichotomised the physiotherapists into two groups according to their first-rank phrases: professionals, including ‘good professional body of knowledge’, ‘professional’, and ‘skills’; and generalists, including ‘knowledge of human nature’, ‘good pedagogic and communicative ability’, ‘good personal qualities’, and ‘ability to cooperate’. The generalists comprised 51, and the professionals 43 per cent. Altogether 6 per cent did not give any preference, most of them (70%) graduating in the 1980s. There were no significant differences between the proportion of generalists or professionals on the one hand, and year of graduation, occupational area, or sex on the other.

A large proportion (61%) answered “no” to a question about having sufficient knowledge and proficiency for the present work-tasks, despite the fact that 86 per cent considered their educational training to be good or fair, and despite a high degree (84%) of participation in further education. No differences were found in this respect between the sexes, between physiotherapists in different occupational areas, or between physiotherapists who graduated before/after 1980.

Almost half of the respondents (46%) considered the curriculum in physiotherapy to be well suited to their profession. A total of 40 per cent approved of the program, but had minor criticisms; the remaining 14 per cent regarded the curriculum as poor. The educational program was perceived as significantly much more adequate among those graduated more recently. Altogether 70 per cent of those graduating since 1980 regarded the training program as suitable for their occupation, compared with 31 per cent of those who graduated before 1980. None of the physiotherapists with a recent training regarded the training program as poor, compared with 21 per cent of those who graduated earlier.
Men and women in physiotherapy — a case of internal division of work

According to our interpretation a partial internal division of work between the sexes has arisen. The legal obstacle to men entering the profession was abolished during the 1960s and in consequence male recruitment has increased (Yearbook of Educational Statistics 1986, p.277). Westbrook & Nordholm (1987) report a similar change among physiotherapy students in Australia. In 1986, males comprised 34 per cent of students starting the degree course at one college, compared with 10 per cent in 1976.

A larger proportion of women than of men are working in IPI care, in areas that, as regards physiotherapy, can be considered to be rather person-oriented, least instrumental, and not always orientated towards effecting immediate results. For instance, physiotherapists working in the pediatric and psychiatric care are likely to work for long-term rather than for short-term results. Proportionately more men, irrespective of year of graduation, worked outside institutions, in settings considered to be more instrumental and orientated toward short-term results, and also less patriarchal and hierarchical. These areas are not bound by female professional traditions. In these areas, salaries are generally higher than those in hospitals and are considered more prestigious and consequently professionally more attractive. The male physiotherapists, to a much higher extent than the females, seemed to have ignored the recommendation of the national union of physiotherapists, recommending two years in-patient care before working in NI care. Growth-oriented and more technological and result oriented jobs in health care are said increasingly to be occupied by men, whereas the service and person-oriented jobs remain, traditionally, occupied by women (Levitt, 1977; Waerness, 1984a, 1984b; Ressner, 1985a).

The process of professionalization

The results of our study have been interpreted in terms of a continuing professionalization of physiotherapy. There is a significant change in attitudes to work between physiotherapists who graduated before/after 1980: the more recently graduated work longer hours. The educational program is experienced as much more adequate by those graduated more recently. The main reason for entering the profession has shifted from a humanistic wish ‘to work with people’ to a concept of physiotherapy as a ‘free and independent occupation’. Moreover, feelings of inadequate skills and knowledge, admitted to by many physiotherapists, may be due to the short training program, or to increasing demands placed on physiotherapy from patients, from other staff, as well as from the physiotherapists themselves. It may also, however, be a sign of an increasing specialization and professionalization of physiotherapy, which would place greater demands on professional knowledge and skills.

Professional role and autonomy in physiotherapy (Paper II)

The relative frequencies of male and female physiotherapists concerning age, year of graduation and working hours are displayed in Table I, and their representation in the different areas of occupation, in Table II.

The respondents considered physiotherapy to be both varied and creative, but neither particularly well-defined, nor very specific in its objectives. There were only minor differences between the opinions of female and male physiotherapists. The more recently graduated physiotherapists regarded physiotherapy as significantly better defined than did those who graduated earlier. Fig. 2 shows the opinions on the various characteristics of the physiotherapy profession as related to year of graduation.
Opinions varied when the respondents were asked to estimate whether or not they had attained professional norms during their formal training. On a decimal scale with the extremes ‘no, not at all’, and ‘yes, definitely’, the mean was 4.4 (SD 2.4). Men and women scored fairly equally irrespective of occupational year. Physiotherapists who graduated in the 1980s claimed a significantly better knowledge of the professional norms than did those who graduated before 1980, mean 4.9 (SD 2.3) vs. 4.0 (SD 2.4) earlier.

Most respondents (86%) were in firm control of their treatment methods, but had somewhat restricted freedom in deciding whom to treat, and when to terminate treatment. One-fourth of the physiotherapists (25%) always felt free to decide whom to treat, while another 55% were often free to do so. There were no significant differences between those possibilities as regards sex, year of graduation or occupational area. More than half (53%) of the respondents said they could always decide when to terminate treatment, and 36 per cent could often do so. A significantly larger proportion of those working in NI care (95%) than in IPI care (84%) reported that they could always or often decide when to terminate treatment. Most (96%) physiotherapists regarded their professional tasks as being important for others. Few (14%) systematically evaluated their methods and results, hence few got any objective feedback from their work. There were no significant differences as regard time spent on evaluation in relationship to sex, year of graduation, or occupational area. The majority of the respondents (84%) had participated in further education in physiotherapy, and 40 per cent had earned between 1 and 9 university credits before or after graduating in physiotherapy.

More than one-third (36%) of the physiotherapists deemed physiotherapy to be indispensable to the treatment of patients; the remainder saw it as an important complement to
other forms of treatment or important for certain patient categories. Significantly fewer (23%) believed their head of department to regard physiotherapy to be indispensable in their sphere of work. More than half of them (55%) thought that the physician primarily expected them to act as independent professionals, while about one-third (34%) felt that they were expected to undertake treatment after referral from or discussion with the physician. Few (2%) believed that the physician had any other expectation or none at all. The remainder did not make any assumptions.

The physiotherapists assumed that patients first and foremost counted on direct improvement (61%) or cure (22%) as a result of treatment. Only 8 per cent believed that their patients mainly expected régime or preventive measures. Few physiotherapists reported conflicting expectations from other staff concerning professional matters, but around 30 per cent were often confronted with conflicting expectations from their patients.

Most of the physiotherapists (72%) seldom or never expected any conflicts between their family and their own professional role. There was, however, a significant difference between females and males in this respect, as there was between mothers and fathers. Of the women, 28 per cent, vis-à-vis 10 per cent of the men constantly or often experienced such conflicts. Of the mothers, 36 per cent, vis-à-vis 11 per cent of the fathers constantly or often experienced conflicts between their family and their own professional role. Proportionately fewer of those mothers who graduated in the 1980s reported that they constantly or often suffered such role conflicts (18% vs. 42%, respectively).

When asked to estimate the status of a physician, a nurse, a medical social worker and a physiotherapist, the physiotherapists ranked the physician highest. Most ranked their own profession ahead of the other two para-medical personnel. The females ranked all professions except the nurse significantly higher than did the males, although the congruency between the sexes regarding the hierarchy itself was fairly close. Physiotherapists graduated in the 1980s gave nurses, medical social workers, and physiotherapists a significantly lower status ranking than did those graduated earlier (Fig. 3).

The characteristics of the physiotherapy profession as related to educational background
The opinions of the physiotherapy profession as not being well-defined nor very specific in its objectives are consistent with the results of the national survey conducted in 1982 (Bergman & Sundelin, 1982). One possible reason for this state of affairs seems to be the fact that physiotherapy training up to 1977 rather resembled a condensed medical training than a training based on the needs of physiotherapy (Bergman & Sundelin, 1982; also cf. Thompson, 1979; Ross et al., 1980; Miles-Tapping, 1985). Up to 1977 the central curriculum for physiotherapy training, stipulated by the Board of Education together with the Board of Universities and Colleges, did not even mention the word ‘physiotherapy’. The words ‘professional theory’ and ‘vocational training’ were used instead. The curriculum was at that time—much more than today—orientated toward science and medicine, and expressed the opinion of the physician as the one responsible for and expert in physiotherapy treatment (Bergman & Sundelin, 1982).

In 1977, training for the physiotherapy profession in Sweden was incorporated into university education, leading to a University Certificate in Physiotherapy, from having earlier been an extension of the nine-year compulsory state education. This gave a new standard to the educational program and also made it possible for physiotherapists to enroll in educational programs leading to a post-graduate degree. Since becoming incor-
The physiotherapists had as a rule received a thorough training. This fact corresponds with findings in the national Swedish survey (Bergman & Sundelin, 1982) and also with findings from other countries (Woodbury & Peat, 1980; Morrison et al., 1982; Nordholm & Westbrook, 1985). Besides, the physician’s role as an expert in physiotherapy is now less entrenched. This development has followed the same line as described by other authors (Øvretveit, 1985; Jackson, 1987; Ramsden, 1987; Samuels, 1987; Westbrook & Nordholm, 1987; Miles-Tapping, 1989; Ritchey et al. 1989). Yet, the physiotherapists seemed to feel that they had a relatively subservient relationship vis-à-vis professional expertise, i.e. as mere consumers. They took part in courses and university studies, but very few systematically and regularly evaluated their treatment methods or results. Consequently, few could demonstrate any objective outcome or evolve physiotherapeutic methods or knowledge.
Autonomy and decision making

Physiotherapy seems to be well defined, both on the basis of professional organization and from the standpoint of other medical staff, but not equally well defined in the view of the patients or of the physiotherapists themselves. Few physiotherapists reported incidents of role conflicts with other occupational groups concerning their profession, despite reported differences in expectations vis-à-vis patients. The reported lack of professional conflicts with other medical staff may indicate that the physiotherapists did not challenge the physician’s authority by making explicit their own physiotherapeutic opinions. The absence of role conflicts might therefore be interpreted in terms of a low professional profile on the part of the physiotherapists.

Studies on the relationship between doctor and physiotherapist reveal that the latter are not always satisfied with the performance of doctors as team members or supervisors (Ross et al., 1980; Uili et al., 1984; Stanton et al., 1985; Bower Hulme et al., 1988). Williams & Gelmon (1982) discussed two concepts for the health team, one in which the physician leads the team, and one where professional members accept patients without referral, and refer patients for subsequent services as required (pp. 261—262). The authors expressed a fear that, with the latter model, the result might be that the health services are provided in a fragmentary fashion. This model, involving comradely professional collaboration concerning common tasks, ought in my opinion, to lead to a better outcome. This, however, does not exclude the need for coordination and management.

Work and job motivation and satisfaction

To interpret and summarize the findings, the concept of the impact of work planning on job motivation and satisfaction and also on the quality of work, as described by Hackman & Oldham (1975) and Eppler & Nelander (1984), was used. Its basic idea is that certain core job dimensions will provide the individual with experience, which in consequence give job motivation and satisfaction, individual development, and quality of work. The five core dimensions are: skill variety, entirety, importance for others, autonomy, and feedback (Eppler & Nelander, 1985, p. 51).

The fact that physiotherapists regard their profession as a varied and creative occupation obliges them to have at their command a wide range of skills and knowledge and a constant responsibility to be au fait with the latest forms of therapy in order to fulfil their duties satisfactorily. Usually skill variety is a constructive attribute, but it must not become so great that it is felt to be burdensome and hence a drawback (Hackman & Oldham, 1975; Eppler & Nelander, 1984). Physiotherapists are not completely autonomous in their profession. They are not always able to see their job through from start to finish and show visible and measurable results—the job thus lacks in entirety. Few systematically evaluate their treatments and methods and thus few obtain any objective feedback from their work concerning the results. Responsibility for the outcome of one’s work is said to be closely connected with autonomy (Hackman & Oldham, 1975; Eppler & Nelander, 1984). They experienced, however, a certain degree of independence within their field of therapy and this accords with earlier research on physiotherapists and their work (Mercer, 1980; Sim, 1985). The job was felt to have a substantial impact on the lives or work of other people, to be important for others, and therefore meaningful to the physiotherapists. This seemed to be an important work attribute for the physiotherapists, as it is described to be in other care-giving occupations (Ressner, 1981; Viklund, 1981).
In a Canadian survey of the physiotherapy profession, it was shown that a low level of professional satisfaction was associated with dissatisfaction with working conditions (Gelmon & Williams, 1983). Atwood & Woolf (1982) studied job satisfaction among physiotherapists, using an instrument based on Maslow's hierarchy of needs. Their conclusion, with which I agree, is that work combining significant skill requirements with autonomy and accountability, as well as a reasonable income, is likely to produce high job satisfaction for those engaged in it.

The way in which physiotherapists utilise their working hours (Paper III)
Most participants (n=132=89%), worked as physiotherapists, 6 persons were chief physiotherapists and 11 held the post of senior physiotherapist. The mean age was 38 years for the women and 35 years for the men (range 23—59 years). Treating patients, either individually or in small groups, took up on average 33 per cent of gross working time and was the largest single task. Continuing education accounted for 5 per cent, development work for 1 per cent, and other work for 38 per cent. Gross working hours is the working week inclusive of travelling or walking between different duties, coffee and lunch breaks, and also occasional hours and days leave of absence. Net working time is gross working time minus time off duty and also breaks for lunch and coffee. Fig. 4 shows a comparison of gross and net mean working time distribution.

There were large differences between the various occupational areas in time allocation: patient treatment, other work, transport, and non-work all differ significantly between the various occupational areas. Physiotherapists in private practice and primary health care spent the largest share on patient treatment (47 and 43%). Those in the occupational services and pediatric care on the contrary spent the least share on patient treatment (22 and 23%). Table III shows the distribution of patient treatment in the different occupational areas.

Physiotherapists in the occupational health services assigned the largest share of their work-time to 'other work', 49 per cent compared with 38 per cent on average. The proportion of time spent on transport, walking and travelling between different duties or premises, varied according to occupational area. Physiotherapists working in pediatric care, embracing care of the mentally retarded, spent the largest proportion of time

![Figure 4. A comparison of gross and net mean working time distribution (%).](image-url)
moving around (13% vs. 6% on average). Physiotherapists in primary health care spent on average the least time on transport (3%).

There were no significant differences concerning vocational training, embracing continuing education and development work, as related to occupational area, professional post, working hours, sex, or age.

Using a one-way analysis of variance it was shown that full-time employed physiotherapists spent a significantly greater proportion of their work-time on patient treatment than did those working part-time (35% vs. 29%). Chief and senior physiotherapists were found to allocate a smaller share of their work-time to patient treatment than did ordinary physiotherapists (22%, 25%, 35% respectively). There was also a significant difference between the average time chief, senior and ordinary physiotherapists spent on 'other work' (54%, 41%, and 37% respectively). Male physiotherapists allocated a significantly greater proportion of time to treatment than did female physiotherapists (39% vs. 31%). (Cf. Table IV.)

**Allocation of working hours**

Treatment of patients is the most important single task in physiotherapy. The results reveal that the physiotherapists used about 70 per cent on average of their gross work-time for duties that can be looked upon as professionally specific. By contrast, in a study of pharmacists it was found that they used on average 37 per cent of their work-day on professionally specific tasks (DiPiro et al., 1979). Furthermore, the physiotherapists in Västerbotten used on average 40 per cent of their net work-time on treatment, a proportion slightly less than that reported by Allen (1983) which amounted to 44 per cent.
Standard deviations are largest within the work components patient treatment, continued education, and sick leave/off duty hours. This fact is partly related to the data collection procedure; further education usually consists of courses and conferences over one or several days. Consequently, physiotherapists involved in such activities do not then treat any patients. This will polarise the time distribution. Absence due to sickness or vacation will have the same effect. The method of work sampling contributes to a better understanding of the work of physiotherapists, partly by revealing the extent of different work components, and partly by indicating factors connected with the use of time.

The method used requires that the work categories are well established, and assumes that each individual honestly and accurately records the work-sampling data. A similar form was successfully used by Allen (1983). Mannisto (1980) found stop-watch time studies suitable when a precise assessment of the time and a finer breakdown of activities were wanted. In a study comparing work sampling and continuous observations, the two methods showed a high degree of similarity (Wirth et al. 1977). The authors conclude that "Work sampling is preferred because of time, cost, and possible observer influence on non-patient activities" (Wirth et al., 1977, p. 953). The instrument is thus deemed to have an efficient validity and reliability.

Factors affecting work-time allocation among physiotherapists (Paper IV)

Table V shows the correlations between the dependent variables and the factors studied, expressed in eta- and beta-coefficients in the MCA, and also the $R^2$-coefficients for each dependent variable, when the effect of period of time is controlled for. A comparison of the eta- and the beta-coefficients shows only small mutual differences, which indicates a limited effect of interrelationship between the factors included in the model.

The explained variance, $R^2$, is 0.37 for 'patient treatment' and 0.30 for 'transport'. The factors thus explain about one-third of the total variance of the time allocation for those tasks. The $R^2$-coefficients for the remaining dependent variables are low, which indicates that the factors studied have a lesser explanatory power for that kind of time distribution.

Using the beta-coefficient, the conclusion can be drawn that occupational area is the most influential factor in explaining the variations in time distribution, when the other factors are kept constant. There were only small differences between a model including

Table V. Eta and Beta coefficients in the MCA analysis, with the $R^2$-coefficient. Significant effects of the factors in the analysis of variance are indicated by *** (99.9%), ** (99%) and * (95%)
the covariate 'period of time' and a model without this covariate. The dependent variables 'administrative tasks' and 'other tasks' remained uninfluenced. The explained variance for the remaining dependent variables increased somewhat, especially for vocational training, where the $R^2$-coefficient increased from 0.04 to 0.12. Fig. 5 shows a model of the effects of the most influential factors, according to the beta-coefficient, on the variances in the physiotherapists' allocation of working hours.

The most important finding of the MCA study is that occupational area is the one factor studied that considerably affects the physiotherapists' distribution of working hours, and that neither sex nor gender excessively affects the carrying out of tasks other than patient treatment, nor does professional post markedly affect the utilization of working hours other than for administrative tasks. Vocational training and non-work were the only dependent variables on which no significant effect of the factors was found on the variances in the allocation of work-time.

**Determinants for organizing professional work**

The fact that the occupational area is such an influential factor for explaining the variances of the physiotherapists' work-time, together with the fact that professional post has only a slight influence on that variation, reveal that the individual physiotherapist must be prepared to play a widely defined professional role. That professional role has relatively little influence on the distribution of working hours, may indicate that physiotherapy as a profession has a fairly low degree of professional stratification. In organizations, supervisory professionals are usually accountable for the aggregate performance of the employees under them and for maintaining an organizational perspective (Lipsky, 1980).
If this situation does not obtain, the individual physiotherapist must have both an organizational as well as a close ‘day-to-day’ perspective. The great differences in work-time distribution between the various occupational areas might be a sign that physiotherapists are well adapted to varied occupational and organizational demands. From another point of view, these differences might be a sign that physiotherapists are adapted but subservient to organizational demands and thus have difficulty in claiming specific professional interests. The latter interpretation agrees with the conclusions drawn here. Brown (1985) discusses the implications for physiotherapy of changing health environments, when focusing on the organization and management of physical therapy services. He believes that the education of physiotherapists should be reviewed to explore the opportunities for increased exposure to subjects such as economics, law, finance, and management, in order to provide a foundation for better understanding and for more effective participation in decision-making processes concerning the provision of health care services. His and our conclusion is that old ideas on physiotherapy education and practice must be examined and challenged in the light of current expectations and demands of clients of the national health service.

Developmental work ought to be a logical expression of the process of professionalization. However, this study indicates that neither ordinary physiotherapists nor chief or senior physiotherapists expend much work-time on such tasks. Consequently, none of them seem to exploit their special professional position to organize their working hours in a way which would benefit research and development work. Like Hofman (1986) we believe that more attention must be focused on how the obstacles to research can be overcome and that the professional organization must be revised in order to make clinical physiotherapy research possible. Hofman (1986) concludes that “the hospital in which research is encouraged and stimulated will inevitably become a more progressive, innovative institution- one in which patients and staff are ultimate beneficiaries.” (p. 29).

This study cannot explain why the physiotherapy profession has a low degree of professional stratification. One possible explanation is the limited prospects for advancement for physiotherapists. The possibility of professional advancement is said to have a profound impact on the attitudes of employees to their own achievements (Kanter, 1977, p. 129 ff; Ressner, 1985b). Hierarchy as an organizational attribute is known to have profound psychological implications for its members (Tannenbaum, 1966, p. 45 ff; Alvesson 1983, p. 124 ff; Ressner, 1985b). If there is a hierarchy, then it is possible to achieve success! Kanter (1977) writes that people with bright career prospects tend to have a ‘vertical’ orientation, compare themselves with their ‘superiors’, and also have high aspirations and are more committed to the organization. People whose opportunity horizon is limited, she declares, have on the other hand a ‘horizontal’ orientation, compare themselves with peers, and also tend to limit their professional aspirations and seek satisfaction in activities outside of work (pp. 246—7).

Hierarchy is, however, sometimes said to work against the best interests of both medical care as such and of the patients for whom the medical service is intended (Waerness, 1984b). It is conceivable, however, that physiotherapists value other aspects of work than prospects of advancement. Levin & Olesen (1980) as well as Westbrook & Nordholm (1984) and Ressner (1985a) suggest that people with ‘lateral’ ambitions value more the intrinsic aspects of work such as opportunities to develop skills, a preference for individual autonomy, and a sense of achievement from doing a job well. This might well be true of physiotherapists.
Vocational strategies among physiotherapists (Paper V)

The informants held various professional posts (chief, senior, and ordinary physiotherapist). They worked in various occupational areas (in-patient somatic care, geriatric care, psychiatric care, primary health care, pediatric care including care of the mentally retarded, occupational health service, and private practice). The respondents were between 25 and 59 years old and had graduated between 1950 and 1985, and had thus between 2 and 38 years of professional experience.

The ideal-types the treater, the consultant, the doubter, and the innovator, depict various coping strategies for vocation and professional role. For reasons of simplification, all ideal-types are depicted as feminine, although each ideal-type includes both female and male physiotherapists. The treater is characterized as giving priority to patient treatment, taking the view that she is responsible for care and service-giving in the form of physiotherapy, but also based on her own interest. The consultant is characterized by an intent to work as an adviser and expert in physiotherapy, rather than with treatment, in an experienced non-hierarchical setting. The doubter is characterized by giving priority to patient treatment, even when suspecting that combining patient treatment and research would promote professional knowledge as well as clinical work. The innovator is characterized by a deliberate desire to work with management and research as well as with treatment, in order to promote both patient work and professional autonomy.

Those ideal-types can all be perceived to emanate from an identification with and a responsibility to cater for other peoples’ interests and needs. The physiotherapists view their profession as having a double objective: the supply of care and treatment in the form of physiotherapy- both equally important. Management and research receive low priority and are not a regular part of the average physiotherapist’s work. What restricts many of the physiotherapists’ working opportunities seems to be their limited professional autonomy- an inability to apply their professional knowledge independently, but also the actual limits of physiotherapy- its immature corpus of knowledge. A number of physiotherapists have, however, reappraised and extended their concept of the profession to include management and research in their everyday work, in order to be able to verbalise and account for their treatment methods and results, and at the same time to extend their own specific, theoretical fund of knowledge. Those activities are in turn seen to be associated with an increased professional autonomy as well as with the time to collaborate with other professionals and with the opportunity to take an active part in devising overall work objectives and routines.

Theoretical implications

The four ideal-types represent various, seemingly rational professional choices, where the individual physiotherapist is to some extent able to develop her own professional interests and competence. With the exception of the consultant’s sphere of work, management and organization of the work-place do not seem to be suitable to the physiotherapist’s work, and, in consequence, not for the patient/client either. Mostly it is a case of hierarchy and bureaucracy: physiotherapists in Sweden have direct access to patients, though patients require a physician’s referral in order to obtain reimbursement from the social insurance office. The physiotherapist is sub-ordinate to the physician on ‘medical’ questions, which obviously also include putting a patient on the sick-list for physiotherapy treatment, authorizing social insurance cards, and also signing letters of referral, etc. Furthermore, the physiotherapist has certain limited possibilities to collaborate and participate in deci-
Being a physiotherapist

Some physiotherapists seem to have what Purtilo (1986) calls a "narrow" concept of professional responsibility, meaning that the provision of good health care mostly involves direct patient care. This concept is seen to be deeply rooted in the professional culture—the ideas and values concerning the purpose and practice of physiotherapy (cf. Bueno & Vincent, 1986; Kinnunen, 1986). Such a concept is, however, questioned by a number of physiotherapists, chiefly from an experienced need of being able to verbalise and give reasons for their treatment methods and results, in order to improve the quality of physiotherapy, and at the same time to extend their own specific body of knowledge (cf. Samuels, 1987; Starks, 1987; Krebs & Harris, 1988; Roux, 1988; Pratt, 1989).

To sum up—in my interpretation, the four ideal-types seem to differ in their awareness and desires concerning autonomy, but also have different approaches and wishes concerning how to gain and develop professional knowledge. However, it seems, to be a question of a dynamic, open-ended process, having several possible outcomes. Fig. 6 is an attempt to depict this process.

*Figure 6. An interpretation of the approaches and wishes of the four ideal-types to professional knowledge and autonomy, with the arrows suggesting various possible future prospects.*
CONCLUDING REMARKS

The breadth of physiotherapy is an important characteristic of its overall contribution to health care. There also seems to be a wealth of skill and expertise available within the profession, which could, however, be more efficiently used if the management and organization of physiotherapy service were better adapted to serve its objectives, and if these were better delineated and communicated.

The professional role of physiotherapists is depicted as being multifaceted and complex. Physiotherapists consider physiotherapy to be a creative and varied profession, but neither well defined nor very specific in its objectives. These circumstances together with the fact that occupational area has such a profound influence on the work of physiotherapists and that professional post, on the contrary, only slightly influences that work, reveal that the individual physiotherapist must be prepared to play a broadly defined professional role. The professional culture of physiotherapy is pictured as stemming from the physiotherapist as a treater or “doer”. Patient treatment is in reality the main single occupational task. There is, however, considerable differences between the time physiotherapists, in various occupational areas, allocate to treatment. Furthermore, a small proportion of treatment does not seem to be replaced by any particular equivalent professional work task. Rather, the physiotherapist’s work seems to become more diversified. Also, the results of this study unveil that many physiotherapists have difficulties claiming their specific professional interests and thus become subservient to organizational demands rather than being able to organize and fulfil their work in a way that is believed to be more beneficial for their patients and clients. This also restricts their opportunities to take in and judge physiotherapy as part of a greater whole. It is a case of hierarchy and bureaucracy. It is, however, also because the physiotherapists themselves are holding a low professional profile. This in turn seems partly to be due to the fact that physiotherapy is in most cases a dominated paramedical occupation. Altogether this state of affairs indicates that the individual physiotherapist require additional knowledge and skills besides those directly connected with treatment to be able to raise the professional standard.

According to Abbot (1988), full professional status implies the full right to use, control, and structure both practical and abstract, theoretical physiotherapy knowledge. For this to be feasible physiotherapists must revise their working organizations, seek new alliances besides that with physicians, and secure the right to collaborate and participate in authorities where important decisions are taken. Physiotherapists have to make clear both to themselves and to other professional groups in the health care sector as well as to patients and clients and society at large, what precisely they- and no other occupational group- can achieve and do and how this might be accomplished. Here it should be emphasized that the physiotherapists themselves must take on the responsibility of defining what constitutes physiotherapy expertise. This should involve a more overt discussion between physiotherapists and other professional groups and between physiotherapists with different professional approaches and different frames of reference. It should also include increased opportunities for physiotherapists to engage in and broaden physiotherapy development and research. Furthermore, it should include a revision of physiotherapy education to define and strengthen physiotherapy as such, but also to enlarge such subjects as management, law, and economics, not to mention psychology and education (Cf. Brown, 1985).
A partial division of work between the sexes has arisen following the increasing number of males in the profession. According to previous research on sex or gender and work (Phillips & Taylor, 1980; Murgatroyd, 1982; Fürst, 1985; Lindgren, 1985; Florin, 1987; Wikander, 1988) there is an obvious danger that physiotherapy in “female” occupational areas will be considered increasingly less prestigious and in consequence fall off in status and salary, and also be increasingly of less significance when defining and developing professional competence. As physiotherapy, independent of occupational area, is considered to be important to the treatment of patients, it must be of utmost importance to avoid such prospective.

The fact that many physiotherapists express a desire to be able to verbalise and account for their way of working in addition to their knowledge of praxis, links up with the idea of physiotherapy as being both art and science (Hislop 1975; Peat 1981) and with a discussion by Johannessen (1988) about different concepts of knowledge, based on the concept on knowledge of the philosopher Ludwig Wittgenstein (1889—1952).

Johannessen (1988) distinguishes between two concepts of knowledge; “factual knowledge” including rules, predictions and statements, and “tacit knowledge”. “Factual knowledge” concerns such knowledge that can be entirely articulated verbally, whereas “tacit knowledge” concerns such skills which for logical reasons cannot be completely explained verbally but are shown in practical application, which is mostly the case with physiotherapy knowledge. This tacit knowledge is partly demonstrated as the skill of using statements and partly as a certain familiarity with those states of affairs (Johannessen, 1988). He concludes that it is not possible entirely to reduce tacit knowledge to rules or statements. Practice itself is part of the creation of concepts. Thus, the creation of concepts and exercising these are integrated parts. This is a very important aspect in the case of physiotherapy. Such ideas imply that developing practical and theoretical knowledge should be integrated activities — physiotherapy as both art and science!

To integrate practical and theoretical skills, research methodology as well as physiotherapy organizations and situations ought to be discussed and modified. Schön (1982) presents a strategy for linking research with practice. He portrays “the reflective practitioner”, who deals with practice by technical proficiency and also by reflecting on the nature of clinical problems as well as the potential results of treatment. For the reflective therapist, problem identification is as important as problem solving. Schön states that the artistry of the competent professional lies largely in the ability to select what to pay attention to in the face of the numerous uncertainties and complexities that arise in practice. Problem identification, or problem setting, is a conceptual rather than a technical process. In problem setting the therapist states what should be attended to in practice and frames the context for intervention — “name it and frame it” as Schön says (1982). Going back and forth between conceptualization of a problem on the one hand and appraisal of treatment effects on the other is what Schön (1982) calls a “reflective conversation with the situation”. With “reflecting-in-action” the therapist can develop a keen ability to articulate reasons for the myriad of decisions made in treatment. There is that sharpening of sensitivity to fine cues and increased flexibility in clinical decision making, that Dreyfuss & Dreyfuss (1986) picture as being an expert’s rather than a novice’s action.
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What is the truth in Berlin and Jena
Is just a bad joke in Heidelberg.

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