Time and general practice consultations - aspects of length, attendance and quality

Sven-Olof Andersson

Umeå 1995
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Umeå 1995
Summary

Time and general practice consultations
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The consultation is the GP’s form of work. How long a consultation should be, and what short/long consultations imply with regard to the satisfaction of patient and doctor has been much debated. The aim of this thesis was to study consultations with regard to content and time consumption in a short term and long term perspective. Three studies were carried out:

1. Consultations with the members of a group of GPs were investigated, where patients and doctors separately assessed different aspects of the consultation, and their ratings were related to the real length of the consultations. The following questions were posed: Was there time enough? Could the patient tell the doctor about her/his problems? Were the problems physical or psychological?
2. Nurses at the primary care health centres were interviewed about their considerations in booking short or long appointments for the patients.
3. Patients who frequently attended one health centre during one year and consumed much time were studied. Quantitative and qualitative methods were used.

The results of the first study (Papers I-III) show that the average length of the consultations was 21 minutes; there was considerable variation (ranging from 3 to 60 minutes). (About 600 consultations with 7 male doctors were registered in two batches). The doctors’ mean consultation length also varied widely, from 13-28 minutes. Consultations dealing with psychological problems were longer than those dealing with physical problems. Older patients had longer consultations than younger patients, and female patients had somewhat longer consultations than male patients. The patients were generally more satisfied with the consultations than the doctors were, and there were no clear affinities between long consultations and high satisfaction. Male patients and patients with physical problems mainly received short consultations, whereas patients with "mixed" problems and older patients received long consultations.

The single factors most decisive for the length of a consultation were ‘the doctor factor’, the character of the problem and the age of the patient. "Good" consultations (operational definition) were associated primarily with ‘the doctor factor’, and the real length of the consultations was less important.

The interviews with ten experienced primary care nurses (Paper IV) showed that the nurses worked in two perspectives: in the "immediate" perspective, appointments were booked according to rules which directly impacted the length of the visit, and in the "reflective" perspective, appointments were booked with a view to the quality of the work at the health centre and the long-term time consumption. Other factors of importance were the patient’s age and problem(s), the doctor’s experience and working style, and the current situation at the health centre.

Frequent attenders (FAs) at one health centre (Paper V) were compared with a contrast group of matched patients (CPs). The FAs represented 1.7% of the population of the catchment area and made 15% of the visits. The FAs were a heterogeneous group where small boys, women of working age and pensioners of both sexes were overrepresented. The FAs had higher consultation frequency than the CPs during the year of investigation, but few remained FAs for longer periods. The FAs had more problems and more complex problems than the CPs. Complaints regarding the musculo-skeletal organs, and psychosocial problems were common among these patients, often in combination.

The present work thus shows that longer consultations do not naturally imply higher patient satisfaction. Other factors than the time factor, in particular ‘the doctor factor’ seem to be more important. ‘The doctor factor’, the characteristics of the patients, the type of problem and the situation at the health centre also have a bearing on consultation length and time consumption in a short-term as well as long-term perspective. The implications of these factors and their relative importance are discussed, but further studies of certain issues, such as ‘the doctor factor’, are necessary.

Key words: General practice, primary health care, consultation, time, doctor-patient relation, satisfaction, primary care nurse, frequent attender.
Time
and
general practice consultations
- aspects of length, attendance and quality.

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Umeå 1995
It is a delusive illusion
that hours and days should fly
Time, time is never in motion
But people go by

Alf Henriksson,
Swedish poet.
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This thesis is based on the articles delineated below, in the text referred to by their Roman numbers.


In the following presentation these studies will be summarized together with some new and unpublished data.
Summary

Time and general practice consultations
-aspects of length, attendance and quality.

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Sammanfattning

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Resultaten från den första delstudien (Papers I-III) visade att besöken längd i genomsnitt var 21 min men variationen var stor (range 3-60 min). (Ca 600 besök registrerades i två omgångar hos 7 manliga läkare.) Den genomsnittliga besökslängden hos läkarna varierade också avsevärt (13-28 min). Konsultationer med psykologiska problem var längre än de med fysiska problem. Äldre patienter hade längre besök än yngre och besök av kvinnor var något längre än besök av män. Patienterna var på det hela taget mer tillfredsställda än läkarna och det fanns inga entydiga samband mellan längre besök och större tillfredsställelse. Korta besök gjordes frå av män och patienter med fysiska problem medan "blandade" problem och äldre personer dominerade i långa besök.

De enskilda faktorer som var viktigast för konsultationernas längd var ’faktorn doktorn’, problemens karaktär, och patienternas ålder. ”Goda” konsultationer (operationell definition) var mest associerade med ’faktorn doktorn’ och besöken faktiska längd hade mindre betydelse.

Intervjuer med tio erfarna mottagningssköterskor (Paper IV) visade att sköterskorna arbetade med två perspektiv: Ett ”omdelbart”, som innebar att tid bokades utifrån principer av direkt betydelse för besökets längd, och ett ”refleterande”, som innebar att kvaliteten i mottagningens verksamhet och tidsåtgången på sikt vägdes in. Patientens ålder och problem, läkarens erfarenhet och arbetssätt, och den aktuella situationen på mottagningen var också av betydelse.

Mångbesökare (FAs) vid en vårdcentral (Paper V) jämfördes med en kontrastgrupp av patienter matchade för ålder och kön (CPs). FAs utgjorde 1,7 % av befolkningen och gjorde 15 % av besöken. FAs var en heterogen grupp där små pojkar, kvinnor i yrkesverksam ålder och manliga och kvinnliga pensionärer var överrepresenterade. FAs hade högre besöksfrekvens än CPs under åren kring mångbesökar-året men få var mångbesökare längre perioder. FAs hade både flera problem och mer komplexa problem än CPs. Besvär från rörelseorganen och psykosociala problem var vanliga, inte sällan i kombination.

Introduction

"If only I had had more time..." I sometimes say to myself with a sigh when working with a patient, I feel that I haven’t quite come to grips with her/his real problem, and the next patient is already waiting outside, anxious to see me; I know that I will have to finish this consultation without really having been able to come to a tenable conclusion. The frustrated feeling of not having time enough for the consultations is familiar. It became the starting-point of this work about time and general practice consultations.

The consultation - the GP’s form of work

When people feel unwell and want to see a doctor, they usually contact the nearest health centre to see a general practitioner (GP). In the consultation, the patient tells the doctor about her/his problem, the doctor makes a judgement and gives advice. The GP works near to the people in the community, and the patients’ complaints are often somewhat diffuse and indistinct, particularly when patient and doctor meet for the first time. Often, however, the doctor will meet his patients many times, and then the consultations are meetings with patients the doctor knows fairly well. The patient’s problem may be old or new, acute or chronic, simple or complicated, and the background factors may vary. Thus, the GP’s work extends over a wide range of meetings, and the quality of the contacts between doctor and patient in the consultation situation is of vital importance. Michael Balint expresses it in this way (1):

"It happens so rarely in life that you have a person who understands what you are up to and openly faces it with you. That is what we can do for our patients and it is an enormous thing."

The term ‘consultation’ basically means an act of consulting, a meeting held to exchange opinions and ideas, so that a decision can be made (cf. Lat. ‘consultatio’, act of consulting, deliberation, conference). We say that ”the patient consults her/his doctor”, which emphasises that the patient’s role is active, and a consultation is essentially a two-way communication between doctor and patient.
In Sweden, the patient’s meeting with the doctor is often called a ‘visit’ (cf. Sw. ‘besök’). This word has a certain formal ring, and does not focus on the content of the meeting or the patient’s active role, in the same way as the term ‘consultation’. There is thus a certain shade of difference of meaning between a ‘visit’ and a ‘consultation’, even if in the context of health care, both mean a meeting between patient and doctor. Regardless of the semantic difference between the terms, they are generally used as synonyms. Below, I have most often used the notion of ‘consultation’ to underline the importance of its content-oriented meaning.

It is at these meetings with the patients, the consultations, that the GP’s work is mainly done. A consultation is determined by certain external conditions such as time, place and actors. The consultation takes place in a certain room at a certain point of time, there are two main actors and they meet and talk for a certain length of time. These are the standard conditions, and within this framework, a unique event takes place every time.

The consultation is the GP’s form of work, but it is also an important source of knowledge for her/him. Over the years, the GP will gather experiences of thousands of meetings and contacts with patients. By seeing patients, by listening to what they have to say about their complaints, by following up what happens in a long term perspective, and to process these experiences in her/his mind and explore them, alone or together with her/his colleagues, the GP will develop and improve her/his clinical competence. This process is described by Rudebeck in his doctoral thesis where he claims that the consultation is the GP’s primary source of knowledge. (2). He uses the concept of ‘theory-in-action’ to elucidate the development of knowledge that takes place in the actual consultation situation. By ‘theory-in-action’ he understands ”the immediate frame of reference for professional reflection, making possible the creative and specific theory-practice relation of a discipline. The ‘theory-in-action’ in general practice is the real-life perspective of clinical medicine: the theme of the ‘lived body’.” The doctor’s ability to understand the patient’s ‘symptom presentation’ and what this actually stands for, creates the essence of the clinical competence.

Consultation research is a systematically approach to the meeting between the doctor and the patient in a theory-in-action perspective, seeking answers to questions like ”What happens in the consultation?”, ”What are the
effects?”, and ”How can the consultation be improved?” (3). These questions focus on the link between consultation research and the everyday work of the GP, what takes place in the consultations and how they turn out. Consultation research can be seen as the GPs’ collective and public reflections on their work with the patients. Examples of recent seminal consultation research in the Scandinavian countries are, besides the above mentioned thesis by Rudebeck (2), Malterud’s thesis from Norway concerning female patients in general practice work (4), and Lunde’s from Denmark about patients’ self-evaluation of their condition (5).

**Time and the consultation - perspectives and literature review**

The starting-point of this work was the sigh of frustration I mentioned in the introduction - the feeling of inadequacy, of despair at the lack of time in the consultation situation. Such feelings are common among the GPs, and the lack of time is a problem they often talk about and see as a crucial factor for the quality of a consultation. This is evident also in Balint’s pioneering work with British GPs in the 1950’s. Lack of time in consultations was an often debated problem, and the doctors saw it as a major obstacle in their work with the patients (6).

In recent years health authorities in Sweden have stressed the necessity of enhancing the quality in health care, although the economy of the health care sector is deteriorating. Local county councils have also taken measures to improve quality in primary care. In this context the use of time is sometimes focussed upon, and today GPs often comment on the lack of time in their work. This gives cause for a closer view of the relation between time and quality in general practice consultation.

The consultation can be seen in different time perspectives, and two of these are described below, followed by a survey of the literature on the consultation and consultation length.

* One time perspective concerns the duration of the individual consultation. Research in this perspective utilizes descriptions and comparisons, and poses the question whether consultations should be short or long in terms of minutes, viz. ”Is there an optimal length of a consultation?”, ”Is the quality
of the consultation enhanced if there are ‘more minutes’ at the disposal of doctor and patient?’ There are seldom any straightforward answers to those questions, and consultation length is always at issue (7).

* Individual consultations constitute parts of a long-standing contact between doctor and patient. In a continuous relationship they meet a number of times, and the sum total of the time spent in consultations may be quite considerable. The GP and the patient keep sight of each other, and the patient’s problems and complaints bring them together in a joint effort over the years. Balint described how doctor and patient mutually invested in each other in a continuous relationship (6). Other works have likewise shown how the GP successively becomes acquainted with the patient, her/his personality and problems, and this knowledge is meaningful for the quality and efficacy of health care (8).

**Review of literature**

This chapter is a survey of literature on consultation length and time variations in relation to other circumstances.

**Consultation length in different countries**

The average length of a consultation varies a good deal among GPs in different countries, according to reports published by WHO and OECD. In these reports it is also shown that the organization, staffing and surgery equipment as well as the professional ethics of the GPs differ from country to country (9-12). According to these and other reports, the average consultation length in Spain and the Netherlands is 5 minutes, in Ireland 8 minutes, and in Germany 9 minutes, whereas consultations in Finland, the United States, Canada (Quebec) and France are on average 14 minutes.

Many studies of consultation length come from Britain, where the issue of consultation length has been discussed for many years. The consultation length in an international perspective is short, about 7 minutes on average. The debate among British GPs has been summarized in a review whose author came to the conclusion that longer consultations would probably be
good for the patients, but they would be more expensive to the community (13).

**Consultation length, and the remuneration system, list size, and appointment system.**

The way the doctor is remunerated for his work has a certain bearing on consultation length. In a Norwegian study it was noted that consultations were shorter if the doctor was paid per visit than if the doctor had a monthly salary (13.7 vs 14.8 minutes) (14). The authors concluded, however, that the age and sex of the patients as well as the nature of their problems were also decisive factors, as was also stated by the OECD (10).

The GP’s workload is often connected with the number of patients on the list or in the catchment area, and this also affects consultation length. Thus, it was found that in Britain, consultations were shorter with doctors who had long patient lists, and that the total time per year per patient was shorter at their surgeries compared to doctors with shorter patient lists. The differences of average consultation length and average total time per year was, however, relatively small (15-17).

The workload may vary from day to day, and the current workload situation also impacts the length of the consultations. In a large British study, the number of patients per surgery session per doctor was noted as well as the patient’s queue number. If the doctor had many patients listed for his surgery hours and tended to lag behind his time schedule, patients at the end of the queue often had to wait longer and got shorter consultations (18). In such situations, the doctors felt more stressed and pressed for time, and the patients were less satisfied. The problem was worst for doctors whose working pace was rather slow and yet had more patients booked per hour (19). Howie et al observed that this combination of slow working pace and many patients per hour created a difficult dilemma. Better time management would be of value.

One surgery tried to change the booking routines, and a study was carried out of the effects of extending the appointments from 7.5 to 10 minutes (20). In this way, the real length of the consultations was extended by 0.5
minutes, while the patient’s waiting time was reduced by 5 minutes. The workload remained unchanged, however, and the doctors often got some extra patients towards the end of each surgery session. Just to extend the time booked for each appointment was apparently not a practicable way out of the dilemma.

There is a Swedish report of effects of changes in the appointment system, including better access, shorter waiting time for the patients and less feeling of time pressure (21). By improving the telephone counselling system and keeping certain open times at the beginning of each surgery session, improvements were made with respect to access and the patients’ waiting time, whereas consultation length remained largely the same (25 min. before, and 23 min. after the development work).

In Sweden, appointments are usually made by the primary care nurses, and when the patient wants to make an appointment with a doctor, it is often the nurse who is her/his first contact. A well-known dilemma for the nurses is the difficulty of fulfilling the patient’s wishes for time with the doctor (22). The shortage of time modules for appointments is thus a problem not only for the doctor but also for the nurse.

It may be that the patients themselves could be able to determine how long time they need with the doctor. In a Danish study it was found a good agreement between the patient’s expectations of a certain consultation length before the meeting, and the actual consultation length (23). In a British study, where the patients themselves decided length of appointments, it was also found a good accordance between the booked and the actual consultation length (24).

Consultation length, and characteristics of patients and their problems

Patients differ with respect to the time they need for a consultation, and one decisive factor is age. The older the patient, the longer the consultation (25). In a recently published study it is shown that consultations with teenaged patients are remarkably short (26). The patient’s gender seems also to be an influential factor, as female patients generally have longer consultations
than male patients (14). In a recent Swedish study it is shown that immigrant patients also require more time (27).

The patients’ problems also impact consultation length. As can be expected, patients with many problems tend to need longer consultations (25). But the nature of the problem is also of importance. Patients with psychosocial problems often take more time per consultation than patients with physical complaints (25, 28). Frequent attenders often have complex problems with medical as well as social and psychological dimensions (29).

The nature of the patient’s problem seems also to impact the development of the doctor-patient relationship. A study of ‘difficult’ doctor-patient relationships shows that the patients often had complex problems with psychosocial dimensions (30). In other studies, patients of this kind have been called ‘heartsink patients’ and ‘frustrating patients’ (31-33). However, such labels rather mirror the difficulties and frustrations of the doctors than the problems of the patients. Yet it is not surprising that patients who evoke that kind of feelings in the doctor often take more time than the average patient, and come back more often.

**Consultation length, and characteristics of doctors and their working styles**

"What is a good doctor?" asks McCormick, and his answer is: women are better doctors: "They have a greater sense of the realities of life and are more comfortable than men with its necessarily messy and distressing nature. They have also less inclination to don the mantle of inappropriate godlike omniscience" (34). When saying this, which particularly refers to the role of the GP, McCormick does not present any empirical data to corroborate his statement. However, other studies show that female doctors give somewhat longer consultations and have a somewhat higher continuity, particularly with regard to female patients; there are also other differences between female and male GPs with regard to consultations (35-37).

The working style of a doctor is shaped by the fact that her/his training took place in the context of a hospital. The applicability of experiences gained in the hospital context are however limited in the general practice context, and
several authors have pointed to the readjustment process which doctors have
to go through when they begin working as GPs (2, 7). Tate makes the point
that doctors are often forced to go through this readjustment process
without any external support, because as GPs they work alone with the
patients, and they cannot expect much guidance and supervision from
colleagues at work (7). In a nowadays classic study of the working styles of
doctors, Byrne & Long show that during the course of this readjustment
process, the GPs adopt a limited number of patterns of behaviour which
they adhere to whether or not this behaviour is adequate in relation to the
patient’s problem (38). When a GP has adopted a working style, it
obviously becomes internalized and difficult to modify (38, 39).

The working pace of doctors varies a good deal; some doctors work rather
fast while others work more slowly. The effects of these differences in
working pace were studied in Britain where one surgery with generally
fairly long consultations (mean length 8 mins 3 secs) was compared with
one with fairly short consultations (mean length 6 mins 18 secs). At the
‘slower’ surgery there were fewer patients who returned for another visit,
and the number of prescriptions was lower (40). The results seem to
indicate that a few extra minutes per consultation are important for the
content and effect of the health care.

The doctor’s pattern of behaviour face-to-face with the patient, and the
interaction between doctor and patient in the consultation situation is also
important. Concepts like ‘patient-centred’, and ‘doctor-centred’ or ‘disease-
centred’ have been used to characterise the working styles of doctors (38).
Patient-centredness implies that the doctor involves the patient by actively
asking for the patient’s own ideas, thoughts and ways of looking at her/his
state of health, and tries to attain a mutual doctor-patient understanding.
The concept has been further developed (41-45). Patient-centredness has
wider applications than just the individual consultations, as it also is a
matter of the way in which the doctor conducts her/his overall medical
practice (46).

The relation between the length of the consultation and the working style of
the doctor has often been discussed.
In a recent paper about consultation length in European general practice the
author makes the point that patient-centredness has as a precondition that
minimum traditional expectations already are met (12). The additional time required for shared, critical decision-making is denoted ‘innovative consultation time’, and that time is used to support the change of the patient’s role from a consumer to a coproducer of care.

Many doctors find it impossible to work in a patient-centred way, because it is seen as more time-consuming than disease-centred working styles (6, 38, 39). However, patient-centredness does not automatically follow when consultations are expanded in time. This was shown by Ridsdale et al in an experimental study focusing on patient-doctor communication, where consultation length was varied. The authors concluded that more time was a necessary but not a sufficient condition to promote more patient-centred communication (47).

Several studies show that patients consulting GPs who worked in a patient-centred style were more satisfied than patients consulting doctors working in other styles (41, 44, 48). Howie et al observed that doctors with a patient-centred approach had somewhat longer consultations (9 mins or more vs <7 mins); they suggest that the quotient between the proportions of long and short general practice consultations might constitute "a proxy measure of quality in general practice" (48).

This suggestion for a proxy measure of quality was based on another investigation where the doctors’ handling of patients with respiratory problems was studied (49). The participating doctors were categorized as ‘fast-working’ (mean consultation length <7 mins), ‘slow-working’ (mean consultation length ≥9 mins) and the rest as ‘intermediate’ GPs. Their communication with the patients was studied in relation to short and long consultations. It was found that slow-working and fast-working doctors worked in approximately the same way in their short or long consultations. However, fast-working doctors had shorter consultations and prescribed more antibiotics than slow-working doctors. The latter made fewer prescriptions of antibiotics, but instead took time to discuss relevant psycho-social problems, besides the respiratory problem, with the patient. The authors conclude that quality, defined as the exploration of relevant psycho-social problems in consultations for respiratory problems, and how antibiotics were prescribed, "was a function of how competing demands on time were met rather than a function of inherently different clinical insights"
and behaviours”. Thus, according to this study, longer consultations were connected with higher quality.

The handling as such of the patients seems to have some bearing on the course of the patient’s illness, which is shown in a Swedish study of patients with tonsillitis (50). The patients were randomized into two groups which were treated differently; both groups got the same medication, but the patients in one group were more carefully examined and received more information, whereas the patients in the other group were handled in a more ritual and cursory manner. The patients who were handled in a more careful way recovered faster and were more satisfied than the patients who were treated more formally. The average consultation length in the more carefully treated group was 10 mins, whereas the average consultation length of the other group was 6 mins.

However, other studies show that patient-centred consultations need not be longer than other consultations. Without being longer, patient-centred consultations implied better patient contact (51), more patient satisfaction (44) and better compliance (52).

There are thus contradicting reports on the importance of consultation length and its relation to patient-centred working styles.

**Consultation length and quality and satisfaction**

Many doctors believe in the interdependence of quality and consultation length, i.e. longer consultations imply better quality. Thus, British GPs claimed that longer consultations would yield fewer prescriptions of antibiotics (53). This connection has also been corroborated by a study where prescription habits where related to varying consultation length (49).

In general, patients seem to be fairly satisfied with their consultations with the GPs. There are, however, some nuances in the satisfaction ratings with regard to the variations of consultation length, and in countries where consultations are on average rather short, satisfaction increases when the consultations last longer. In Britain, to take one example, it is shown that
patients were more satisfied with 'long' consultations ($\geq 10$ mins) than with 'short' consultations ($\leq 5$ mins) (48, 54, 55).

The importance of longer consultations was further substantiated in controlled experiments where the effects of 'short' consultations ($\leq 5$ mins) and 'long' consultations ($\geq 10$ mins) were studied. It was found that the content of the consultations differed with increased length; blood pressure was more often checked, problems otherwise not discussed were put on the agenda and preventive measures were more often discussed (55-57).

These results support the view that increased consultation length implies enhanced quality of general practice work. All these studies were carried out in areas where consultations are generally rather short, $<$10 mins on average.

With reference to the findings in these and similar studies, it has been debated in Britain whether it would be a good thing to cut the patient lists in order to increase consultation length and thus enhance the quality of the work. This idea has been scrutinized by Butler & Calnan in a large study (58). They found that more time, by way of shorter lists, may be a necessary but not a sufficient condition for higher quality in general practice work. By and large, more time would probably have a positive effect on the quality of the work, but it would only marginally increase the average length of the individual consultation. Butler & Calnan thus maintained that to get any real effects of shorter lists on the quality of general practice work, it would be necessary to regulate the use of the increased resources. One such condition might be that shorter lists would be given to GP's who took part in the development of professional contacts such as in-service training programmes in groups. In this way, it would be possible to stimulate and increase the professional standard of general practice work.

Another way to learn more about the connection between time and quality would be to study consultations that have failed in one way or another. Byrne & Long studied what is termed 'dysfunctional' consultations and found that they were shorter than the 'non-dysfunctional' consultations (a significant difference between 4.14 and 5.31 mins!) (38). These results also support the idea that more time, in terms of minutes, will enhance the quality. There is also a Swedish study of dysfunctional consultations (59),
and in this study it was found, contrary to Byrne & Long, that if the doctor did not quite grasp the patient’s problem, then the consultation tended to be somewhat longer than average.

The interdependence of consultation length and quality of general practice work is discussed by Rutle (60). He presents a model for this connection as a reversed U-shaped curve. Very short as well as very long consultations may both imply bad quality. Short consultations (<10 mins) may indicate that the doctor has not taken time to listen to the patient or has not examined the patient adequately. On the other hand, long consultations may indicate inefficiency. Doctor as well as patient may get weary and lose impetus, and the consultation may turn into more of a social call than a goal-oriented professional consultation. Furthermore, if consultations always are long (>30 mins), there will be less accessibility at the surgery, and other patients may not get any attention at all. The studies mentioned above thus give some empirical support to Rutle’s model: more time means better quality if the average consultation is short, whereas it is debatable if extending already long consultations will improve the quality of these.

When discussing the issue of quality with regard to general practice work, Balint must be mentioned, and I will make some comments here. Together with GPs, Balint studied the development of the interaction between doctor and patient and what it implied for the patient as well as for the doctor. In these studies it was found that the doctor as a person quite often had a bigger effect on the patient than the medication she/he prescribed. Balint coined the metaphor ‘the doctor as a drug’ for these effects. He suggested that doctors should develop their working styles from a disease-oriented to a patient-oriented mode of behaviour (6). Such a change of approach is arduous, however, and it requires "a limited but significant change of the doctor’s personality".

Time and consultation length also interested Balint. He pointed to the importance of the GP’s long perspective. The possibilities for varying approaches inherent in general practice work imply that the doctor by seemingly simple means and frequent short consultations may attain results that hospital specialists can never reach. This is particularly true of patients with mixed psycho-social and physical complaints. In one of Balint’s studies, the impact of consultation length on the patient’s awareness of
his/her own problems and difficulties was studied (61). Among other things, the study looks into the ‘flash’ phenomenon, i.e. the sudden insight, shared concurrently by doctor and patient in a ‘flash’, which enables the patient better to understand and solve her/his own problem. "Six minutes for the patient" often seemed enough for such ‘aha’-experiences, and the actual duration of the consultation did not seem to be the decisive factor; it was rather a matter of contact between the patient and the doctor. However, Balint noted that the "long" consultation (10-30 mins) was necessary for a more thorough therapy and analysis of the patient’s personality.

**Consultation length, and stress and work satisfaction among the GPs**

To be pressed for time seems to be the most common reason for stress in the GP’s work situation. It is also very common that overcrowded surgeries entail increased working pace and shorter consultations. Occasionally, the doctor may feel that she/he has not quite understood the patient and her/his problem. The consultation may have to be prematurely ended and the doctor can not always tend to the patient’s problems as carefully as could be desired. The consultations may turn out to be ‘dysfunctional’, i.e., neither the doctor nor the patient has achieved a satisfactory result (38). The general feeling of stress during surgery hours may thus negatively impact the GP’s working style in the individual consultations, and increase the risk of dysfunctional consultations, leading to dissatisfaction in patients as well as doctors. The quality of the care work declines, and there may also be a risk for fatal mistakes (19, 49).

Work satisfaction is also connected with working style. In a study of GPs in Holland, Grol et al showed that there was a correlation between the doctors’ satisfaction with their work on the one hand, and their working style and attitude to the patients on the other. Doctors who had an open attitude to their patients and paid more attention to the psycho-social aspects of the patient’s complaints were more satisfied with their work, whereas doctors who felt frustrated, tense and pressed for time had a high prescription rate and tended to give the patients too little information (62).
Thus, short consultations seem to be correlated with stress and low work satisfaction. But the picture is not crystal clear, and the correlations are not self-evident. Do short consultations create stress, or does stress shorten the consultations? That this complex of problems has wider implications than the matter of consultation length is shown by Porter et al, who mention among other things that continuing education and training are key areas as well as opportunities for personal change to reduce stress (63).

**Summary of literature**

The literature on consultation length shows that the matter is far from clear-cut. There are however some typical features.

- GPs differ with regard to the length of their consultations, and their individual working styles are relatively consistent over time.
- Consultation length is related to the number of patients listed and the remuneration system; there are also distinctive features connected with country, culture, medical training, and health care system.
- If the appointment time is expanded from 5 to 10 mins, the content of the consultation changes and the quality is enhanced. Increased consultation length must however be combined with measures to maintain accessibility.
- Old patients and patients with several problems and/or psycho-social problems need more time than other patients. Such patients also come back for further consultations more often during a given period of time.
- Booked time for appointments largely determines the length of the consultation. The doctor’s possibility and ability to handle competing demands for her/his time is an important factor for the length and quality of the consultations.
- Patients are more satisfied with long consultations than short ones, particularly in countries where the average consultation length is <10 mins. Short consultations may sometimes be ‘dysfunctional’, i.e. the patient has not really been able to say what he/she has come for. Even long consultations may indicate difficulties in the communication between doctor and patient.
- The literature does not state in an unambiguous way that ‘patient-centred’ attitudes are related to long or short consultations.
* The GP's feeling of stress at work is a complicated matter where lack of time is one factor of importance.

The studies referred to in this survey have been carried out in different countries and different contexts, and for different purposes. The results are therefore not always comparable with and transferable to the Swedish context. There are very few Swedish studies of general practice consultations with a time perspective.

**Aims of the study**

The aims of this work were to study consultations with general practitioners with special regard to the time perspective. It was started in co-operation with other GPs forming a research circle where, among other things, the importance of time with regard to consultation quality was a topic of discussion. Time is, however, a many-faceted concept, and it was therefore necessary to delimit the issue, focussing on three areas of concern:

* The length of the consultations, and how the doctors and the patients assess the consultations in relation to their length;
* The considerations of the primary care nurses in booking short or long appointments;
* Patients who are frequent attenders and require more time than the average patient.

The following specific questions were posed:
* What is the consultation length of the individual GPs of the research circle, and what do a number of factors, such as the patient's age, sex, character of problem, number of previous consultations with the same doctor, the individual doctors, imply with regard to the variations in consultation length?
* What connections are there between the real length of a consultation and the way the doctor and the patient, immediately after a consultation, assess certain features of the consultation, such as its length, the patient's possibilities to tell the doctor about her/his problems, and the nature of the problems?
What are the characteristic features of short and long consultations, respectively?

To what extent does the actual length of a consultation contribute to a "good" consultation?

What considerations do primary care nurses make in booking short or long appointments with the doctor?

What is characteristic of frequently attending patients, and what characterizes the consultations with such frequent attenders?

**Material and methods**

**The study area 1985-1995**

This work began in 1985 and was carried out in the health care district of Umeå in northern Sweden. In 1985, there were c. 67,000 people living in the town of Umeå, and there were 6 primary health care centres with 22.5 available posts for GPs, of which 15-20 were permanently held by GPs. In the entire Health Care District there was then a population of 118,000, and 14 health centres with 47 available GP posts of which c. 35 were held by permanent GPs; the remaining posts were vacant or filled by temporary locums.

In 1995, in the town of Umeå there were 80,000 inhabitants and in the whole Health Care District there were 133,500 inhabitants and 15 health centres. The number of GP posts had increased by c. 50% since 1985, and there were nearly 70 posts available, of which practically all were held by GPs. There were also school health care and a few company health surgeries. The private health care sector was limited.

The work at the health centres has changed during the decade. Various forms of health care team work have been tried. During the last years 'Open surgery hours' have been established at several health centres, i.e. patients may, to a certain extent, come to the health centre to see a doctor (sometimes a nurse first) without having previously booked an appointment or contacted the health centre.
During the decade, the health care system in general has been restructured. The Umeå hospital, which is a university hospital, has developed its mode of working, and outpatient care is getting more widely used. A mental hospital in the area has been closed down. The authority over homes for old people and nursing homes has been changed several times. Child health service, maternity care, public health care and rehabilitation have been developed within the framework of primary health care. In 1994, a more formal list system was established to implement the Family Doctor Bill then taking effect; however, this reform had hardly started when radical changes of the bill were announced.

Below, I will account for the conditions and contexts of the studies and the methods used.

**Context of the different studies**

**The studies of consultation length (Papers I-III)**

The department of Family Medicine at Umeå University started in 1980 by teaching undergraduate courses in Family Medicine. A research circle was formed and was attached to the Department during the years 1981-87. The GPs in the area were invited to take part in this research circle each term, and a number of GPs (5-15 doctors) used to meet regularly for literature studies and discussions on the basis of their own daily work experiences.

Several studies were carried out over the years by members of the research circle, and their activities have been documented (64). One study dealt with the productivity of general practice consultations, and the number of problems per consultation were registered (65). It was found that there were usually several different problems at each consultation. One observation reported in this study was that some patients seemed at first sight to have many problems, but later, when the situation became clearer to the doctor, it was often found that the problems were inseparable and interdependent. Such patients were often felt to be difficult and frustrating.

A topic often discussed in the research circle was the GP’s feeling of being pressed for time during surgery hours. Letters to the editor in the daily
newspapers sometimes expressed grievances against the rush and hurry of doctors who allegedly did not have time to listen to their patients. Literature from other countries, not least from Britain, where consultations are generally rather short, showed that there was a certain degree of dissatisfaction with short consultations (54). Our knowledge of the real length of our consultations was limited. This aroused our curiosity and the members of the research circle decided jointly to study the length of their own consultations and the doctors’ and patients’ assessments of them. The findings of these studies have been presented on several occasions (66-69).

The study of Primary Care Nurses’ considerations in making short or long appointments (Paper IV)

In Sweden, it is often the primary care nurses (PCNs) who are in charge of booking appointments for patients who contact the health centre by telephone and wish to see a doctor. The duties of the PCNs developed during the 1970s concurrently with the reorganisation of primary health care, and besides telephone counselling and booking appointments with the doctors, the nurses also have direct patient contacts (21, 70, 71). The telephone counselling done by the nurses has been studied previously (72), as well as the range of their clinical work (73). How appointments are booked, and what the nurses’ considerations are in connection with this has however not been studied in detail before.

The PCN often has a good insight into the routines of the health centre as well as the work of the individual doctors. She will tend to relate the actual appointment with her recollection of the patient’s telephone call and her contacts with the patient and the doctor in the course of the patient’s visit to the centre. In this way, the nurse gets feed-back from the way she has handled the case, and in time she will become experienced and knowledgeable with regard to the factors and circumstances that determine short or long appointments. To listen to the nurses and acquaint oneself with their experiences is of vital importance when searching for knowledge about consultation length.

Ten experienced PCNs at eight health centres in the health care district of Umeå were interviewed in May and June 1992.
The study of Frequent Attenders to GPs at a health centre - a comparative study (Paper V)

Patients who frequently attend the health care and consume much time are interesting in a number of ways. Within most clinical disciplines, there are regular frequenters, whose problems are well known, and their problems might sometimes be easy to handle. But they may also turn out to be the problem patients of the speciality, when medical knowledge and health care methods do not seem to have the intended effect. Coping with these patients may thus frustrate the doctors and make them feel insufficient. At the same time, meeting these patients may give rise to 'critical situations' which in themselves imply potentials for development and improved knowledge (74). FAs constitute a challenge in many ways, medically as well as psychologically, professionally and from a human point of view (29).

FAs and their visits to the GPs at one health centre, the Mariehem Health Centre in Umeå, were studied. The aim of the study was to look more closely at sociodemographic data and patterns of attendance of FAs in the course of one particular year, and to compare these data with the data of more ordinary patients at the health centre. Another purpose of the study was to generate questions for continued studies of this group of patients and to provide a basis for better care.

The year of frequent attending was 1991, and the data were gathered in July 1992. Some results have been presented previously (75-77). Some results that have not been published before are presented in this thesis.

Methods

The studies of consultation length (Papers I-III)

The research circle focussed on the consultation, and different methods to study the consultation were discussed. Some of the questionnaires used in the studies of consultations with GPs and presented in the literature at this time (1984) were discussed in the group (54, 78). One central topic of interest was the length of the consultation, and a questionnaire used to
assess the time factor was particularly interesting (54). In the course of our work, we elaborated that questionnaire.

**The questionnaire**

The questionnaire had been produced, tried out and used in Britain for patients to assess consultations, and it contained three questions: about the length of the consultation (Q1), whether the patient had been able to tell the doctor about her/his problem (Q2), and about the character of the patient’s problem (Q3).

The questionnaire was translated into Swedish, and discussed within the research circle. A clear and easily comprehensible wording was desirable. The text should be as explicit and straightforward as possible, and clarify the purport and meanings of each question. It was supplemented by questions to the doctor which had the same content as the questions to the patient. The questionnaire is shown in Appendix 1.

The design of the rating scales was discussed. The answering alternatives had to be mutually exclusive, but still express shades of meaning with regard to the degree of satisfaction. One problem was the linguistic expressions of different degrees of satisfaction, i.e. would it be possible for the patient or the doctor to differentiate between the notions of "Nearly enough" ("Ganska lagom"), and "Just about right" ("Precis lagom") in Q1, and "Fairly well" ("Tämligen väl") and "Could tell the doctor all I wanted to" ("Fick säga allt jag ville") in Q2? After carrying out some pilot studies, discussing the questionnaire with health care personnel and patients, and carefully scrutinizing the wordings with the members of the circle, we decided that it should be possible. Furthermore, the asymmetry of the answer alternatives to first question in the questionnaire (Q1) was discussed. Q1 had four answer alternatives on the 'short' side, one "Just about right"- and one "Too long"-alternative. Since the starting-point of the study was the feeling of time constraint, this asymmetry was considered to be feasible, as the nuances of meaning on the 'short' side were of special interest. The third question (Q3) contained five symmetric alternatives between "Entirely psychological" and "Entirely physical". It was suggested that patients might find it difficult to understand the significance of these terms, and the terms may be understood in different ways. Other ways of
formulating the intended meaning were considered, but we could not find any better ways of expressing the character of the problem/s at hand in the consultation.

The ratings of the assessment questions (Q1-Q3) were given in the form of suggested alternatives on a line, an ordinal scale, and patient as well as doctor was asked to put a cross against the alternative that corresponded best with their view. The doctors, besides answering Q1-3, were also to note the real length of the face-to-face consultation, whereas the patients were asked to state sex, age and number of times they had consulted this doctor before.

As a preliminary, the members of the research circle did a rating of a video-recorded consultation. Some ten GPs participated here, and their ratings showed very good correspondence. Before the study was launched, two of the members of the research circle had carried out a pilot study with c. 20 patients each, and the experiences of these registrations were discussed in the circle.

Patient and doctor separately assessed the same phenomenon, i.e. certain features of the just finished consultation. The patient’s and the doctor’s questionnaires had the same identification number in order to be matched afterwards. This method made it possible to compare how patient and doctor assessed the same consultation, and these assessments could be related to the real length of the consultation as well as to the patient’s age, sex and number of previous visits to the same doctor. Data which might identify a particular patient, appointment time or diagnosis or any such information were not registered, in order to maintain the anonymity of the patient.

After these considerations and try-outs, we found that the questionnaire was reasonably reliable for a study with the declared purpose, and that it was practicable with regard to the current routines at the health centres.

**Participating GPs**

The seven doctors carrying out the study were all males with 5-10 years’ experience of general practice work. Three of them were attached to the department of Family Medicine as part-time lecturers, but worked as
ordinary GPs for the rest of their working time. The other four doctors worked full-time as GPs. The doctors were employed at four differently sized (2-6 doctors) health centres in Umeå. The catchment areas of the health centres included parts of the central town area and the nearby countryside. There was no formal listing system, but each GP most often had special responsibility for the population in a part of the catchment area. The appointments to see a doctor were usually booked by the PCNs, most often as a result of a telephone call from the patient. The participating GPs’ working situations with regard to patients were similar to those of other doctors in the area, and they admitted patients with appointments for check-ups as well as more emergent cases.

**Study design**

Consecutive consultations were registered during successive surgery sessions, but patients who could not answer the questionnaire by themselves - mostly children and elderly patients - were excluded. Because of the desired anonymity of the investigation subjects, no registration was made of the excluded patients. It was the doctors’ ambition that the study should reflect the normal situation at their health centre as much as possible, and the usual routines at the health centres were not altered in any way because of the ongoing study.

When a consultation was finished and the patient was about to leave, the doctor asked the patient whether she/he was willing to participate in the study. The patient was asked to fill in a form outside the consulting room, and then put it in a box. The doctor filled in his form immediately after the patient had left. No patient refused to participate, but four questionnaires could not be retrieved.

In the first batch of registered data, there were 20 consultations with 6 doctors; one doctor registered 40 consultations (n=160). The results were summed up and presented to each of the doctors separately and then discussed in the research circle. The number of short and long visits in the first registration was however limited, and more material was considered to be necessary for an in-depth study of the issues, starting from the real length of the consultations. To achieve this, six of the doctors each registered a further c. 80 consultations (n=472).
The first batch of registrations was made in spring 1985, and the second in autumn 1985. In total, 632 consultations were registered, of which 612 pertained to doctors who participated in both registrations.

**Processing data**

In the first study, \( n=160 \), the average consultation length was calculated for patients of different age, sex, and number of previous consultations with the same doctor. Then the average length of consultation with each doctor was worked out. Furthermore, the ratings by doctors and patients of questions Q1, Q2 and Q3 were compared, and the average length of consultation with different ratings was computed. Consultations which were rated as "Just about right" (Q1) were related to the character of the problem (Q3) (Paper I).

The material from the second registration \( n=472 \) was used to study certain features in ‘short’ (≤10 mins) and ‘long’ (≥31 mins) consultations respectively. The varying length of the consultations was investigated by backward stepwise regression analysis. Later on, analysis of variance has been applied, and the results are presented in the thesis. (Paper II).

Materials from both registrations have been closely examined with regard to the doctors who participated in both studies (90-112 consultations per doctor, \( n=612 \)). Consultations with complete ratings on the three main questions by patients and doctors were further examined (\( n=581 \)). An operational definition of the concept of a "good" consultation was made on the basis of the answers of Q1, Q2 and Q3. Consultations where the patient rated Q1 "Just about right", Q2 "Could tell the doctor all I wanted" and where doctor and patient gave Q3 the same rating (marking the same or the adjacent alternative on the scale between " Entirely psychological" and " Entirely physical") were labelled "good" consultations. The distribution of "good" consultations with regard to consultations of varying length, the patient’s age, sex, and number of previous visits to the same doctor, as well as the doctors was studied (Paper III).

The background of the use of the ratings of Q3 was studies showing that if, in the course of a consultation, patient and doctor agree about the nature of the problem/s, and communication has been satisfactory, the outcome of the consultation will be good in the short and medium long perspective (79-81).
**Missing data**

Four questionnaires were not retrieved and these consultations were excluded. There were no registration of patients who were actively excluded (mostly children) or the few patients who did not attend at all although they might have had an appointment.

Some data were missing in a few questionnaires, but the drop-out rate was very low, in fact only just over 1% of the total amount of data. Missing data in the total of 632 registered consultations are reported in Table I. Data from some incomplete questionnaires have been used in the calculations.

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Number of consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual length</td>
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</tr>
<tr>
<td>Patient’s sex</td>
<td>22</td>
</tr>
<tr>
<td>Patients’ age</td>
<td>8</td>
</tr>
<tr>
<td>Number of previous visits to the same doctor</td>
<td>2</td>
</tr>
</tbody>
</table>

**The patients’ assessments of**

- Consultation length (Q1): 5
- The ability to tell the doctor about the problem(s) (Q2): 2
- Problem character (Q3): 28

**The GPs’ assessments of**

- Consultation length (Q1): 1
- The patients’ ability to tell the doctor about the problem(s) (Q2): 1
- Problem character (Q3): 1

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**The study of PCNs’ considerations (Paper IV)**

The study was carried out by two doctors and one nurse, all having many years’ experience of working with primary care. The interviewer, S-O.A., has worked as a GP since 1974 and has taken part in development projects regarding the appointment system and in-service training in communication methods of PCNs. At the time of the interviews, S-O.A. was head of primary health care in the district. The co-author H.H. has worked as a GP
and psychiatrist in different parts of the country and is also a specialist in Social Medicine, and has a BA in Sociology. He is an experienced researcher in primary health care. The co-author V.N. is a PCN, in charge of counselling and running the appointment system at a health centre. She also has experience from several health centres and from research and developmental work in primary health care.

Selection of PCNs

A strategic selection of PCNs was made, and nurses at health centres of different sizes (2-8 GPs’ posts) and with different types of catchment areas (rural, urban, sparsely populated areas) were included. The heads of the health centres were informed about the aim and design of the study. The nurses who were invited to participate in the study were to have

- long experience of work as PCNs
- good knowledge of the GP surgeries
- ability to communicate their experiences

Ten female nurses suggested by the heads of the health centres were selected. They worked at five health centres in the town of Umeå and at three health centres in smaller communities surrounding the town. The nurses were 45-65 years old and had 7-20 years’ experience of working as primary care nurses.

The interviews

At first, an tape-recorded pilot interview was carried out with one nurse (V.N.). The relevance and form of the questions were discussed, and the recording equipment was tested. Then the selected PCNs were contacted by letter. In the letter, information was given about the background and aim of the study. It was underlined that the study was part of a research project on time and consultation length, and the scientific approach was made clear. One week later, the nurses were contacted individually, and all agreed to participate. The interviews were carried out at the workplace of each of the nurses, at a time and place decided by the nurse. Each interview took 25-35 mins.

In the letter, the aim of the study was made clear, viz. to get the nurses’ own answers to the main question, "What do you take into consideration in booking short or long consultations?" The question was repeated at the
beginning of each interview. There were no other questions prepared in advance; supplementary questions asked by the interviewer were only aimed at underlining the main theme. Clarifications, explanations and conclusions were searched for during the interviews. No definitions of short or long time were given; the nurses’ own interpretations of the time concept were accepted.

The interviews were tape-recorded. Two interviews were revised and supplemented because of the bad quality of the recordings. One of the nurses objected to being tape-recorded and instead, notes were taken. The interviews were typed out word by word by the interviewer.

Analysis
The typed interviews were analysed and worked through in accordance with the procedures described by Strauss & Corbin (82) and Miles & Huberman (83). These procedures implies repeated readings of the interviews and discussions about the meanings and connections of the nurses’ statements. The nurses’ statements were conceptualized, coded and categorised, and after several meetings and discussions, consensus was reached of categories and codes. The analysis process went back and forth between the written interviews and memos, code notes and schemes of various kinds. The dimension of long and short consultation length and time-consumption formed the basis of the analysis.

Four factors affecting the nurses’ decisions of the appropriate length of a consultation were distinguished, viz. ‘the patient’s problem’, ‘the patient her/himself’, ‘the doctor her/himself’ and ‘the current situation at the health centre’. The nurses exemplified how these factors impacted their decisions of short or long consultations. In a later phase of the interviews, this immediate and quantity-oriented approach changed, and gave way to more reflective aspects of time and consultation length. These more thoughtful aspects were correlated with time in the short as well as long perspective, and highlighted ideas of the quality of the consultation.

Thus, two main categories, ‘the immediate perspective’ and ‘the reflective perspective’ emerged in the analysis, and these are presented in paper IV. In the thesis I will foremost present ‘the reflective perspective’.
The study of FAs (Paper V)

The health centre
The study of FAs was carried out at the Mariehem Primary Health Care Centre. This health centre is situated 3 kilometres from a hospital and service 10500 people living in a district within the town of Umeå. Five GPs, three male and two female with 2-16 years of experience as GPs, were employed at the health centre. Some of them worked part-time, and there were also locums and trainees at the centre during some periods.

The medical record and the appointment system
Since the start of the health centre in 1982, the medical record system was organised in accordance with the recommendations for medical documentation initiated for primary care (84). The medical record was an instrument for planning, implementation and follow-up of care (85), and it was used whenever a patient came to the health centre and at all other contacts such as telephone calls, correspondence, contacts with other care providers about the patient, etc. Consultations and Other Contacts with the patient were documented by way of dictations by the doctor, typed out by the secretaries. The documentation was usually typed out the same day, or, at the latest, the day after. When the patient was not under treatment, the medical record was kept in the central archives.
To show the content of consultations, labels were written on the front cover of the medical record, stating type of problems or diagnosis handled in the course of consultations. No uniform classification system was applied and the doctors own wording of the labels were typed out.

The patients normally booked appointments by contacting the PCN, and the suggested time length was entered in the joint appointment book. The appointment system was a developed form of system produced during the 1970’s (70). At the time of the study, there were no ‘open surgery hours’, but it was still possible to come for an emergency during the day. Such emergency visits were as a rule also noted in the appointment book.

Studied groups and collection of data
Two groups of patients were studied, Frequent attenders (FAs) and a contrast group of patients matched by age and sex (CPs).
1. The Frequent Attenders: Patients were defined as FAs if they had come to see the doctor ≥5 times in the course of 1991. Emergency visits outside ordinary surgery hours and visits to the child care centre and the maternity care centre were not included. The medical records of the FAs (n=179) were collected from the medical record archive, and the following data were registered: patient’s sex, age, geographic mobility (if the patient was domiciled outside the catchment area or had moved to the catchment area during the investigation period January 1991-January 1992), and number of visits to the doctor per year 1988-June 1992.

The medical records for 1991 were studied; registrations were made of the number of consultations with a doctor as well as the total time spent in these consultations, the number of doctors the patient had seen on these occasions and the diagnoses of the problems discussed in the consultations. Furthermore, Other Contacts were registered, such as telephone, letters, comments and answers of test results, replies of referrals etc. Moreover, the costs of laboratory investigations and X-ray examinations at the hospital, the number of referrals to hospital specialists, and the number of prescriptions; whether members of the paramedical staff (physiotherapist, occupational therapist etc.) had been involved in the case during 1991; whether meetings had taken place on behalf of the patient with representatives of the Social Insurance office and the Labour Exchange, etc.; and, whether the (adult) patient had been accompanied by a relative when seeing the doctor. At a follow-up in 1994 civil status, and in 1995, mortality 1992-94 were registered.

Problems registered at the 1991 consultations were classified in main categories according to the International Classification of Primary Care (ICPC) (86). Classifications of 15% of the consultations were first made together with an experienced colleague, and full consensus was reached without any difficulties.

2. Contrast-group Patients (CPs): Patients of the same sex and age who had consulted a doctor at the health centre 1-4 times in 1991 were selected (n=179). Patients who met the criteria and whose medical records were sitting nearest to that of the matching FA in the archive were selected. The same data were registered for the CPs as for the FAs.
Data about the appointed time for consultations during 1991 were obtained for 87% of the consultations of FAs and for 92.5% of the consultations of CPs. Information about the number of consultations for 1988-90 could not be obtained for all FAs and CPs, as some of them had moved from other parts of the country and there were no available information about their consultations with GPs for these years. In the calculations this has been taken into consideration.

**Data about ordinary patients and population**

In order to get an idea of the representativity of FAs and CPs for ordinary patients, patients were selected at random from the archives (n=396) and age, sex and number of consultations 1991 were registered. Of these random selected patients 5% had ≥5 consultations. Those who had 1-4 consultation (n=375) were on average 37.2 years old, 57.3% were women and they had on average 1.57 consultations; corresponding figures for CPs were 44.7 years, 61.5% women, and 1.65 consultations. Thus, the consulting rate of CPs was in the level of that of ordinary patients at the health centre during 1991.

Information on the number of men and women of different ages that lived in the catchment area at the end of 1991 (n=10439) was supplied by the community of Umeå. A comparison of age and sex of the population, the average patients and FAs/CPs is shown in Figure 1.

Umeå community also supplied data on the average disposable income for 1991 per inhabitant ≥20 years (after tax and also including possible social allowance) in the various parts of the catchment area. These parts were divided into three groups according to the income data: areas with low incomes: ≤150000 SEK (4726 inhabitants), areas with middle incomes: 151-200000 SEK (3180 inhabitants) and areas with high incomes ≥201000 SEK (2533 inhabitants).
Figure 1. The proportions (%) of females and males in different ages in population (n=10439), among average patients (n=396) and frequent attenders (n=179).

Statistical methods

This work has largely a descriptive approach, and in some of the studies descriptive statistics are used. Some other methods more emphasizing inference statistics are also used, for instance chi square-test, z-test and t-test, confidence intervals and analysis of variance.

Results

The studies of consultation length (Papers I-III)

The data were collected in two batches of 160 and 472 consultations, in total 632 consultations. Below, the Roman figures I, II and III indicate reports of results previously published in papers I, II and III, whereas the designation (n=632) indicates that the calculations have been made on the whole amount of data.
Consultation length

The average consultation length was 21 mins, but there were considerable variations, ranging from 3 to 60 mins. The variations in average consultation length between the individual doctors ranged from 13-28 mins (n=632), and each doctor had short as well as long consultations, see Figure 2 (I, II, III). It is also notable that the average consultation length was identical in both registration batches. Five of the doctors had markedly similar average consultation length in the two registrations, whereas one doctor had somewhat shorter consultations in the second registration.

The age of the patient had a bearing on the length of the consultation, and consultations were longer with older patients, which is shown in Figure 3. The shortest average consultation length was 14 mins (patients 0-14 years), whereas the longest was 27 mins (patients 65 and older) (n=632).

In paper II, the starting point was short and long consultations respectively, and there it was also found that it was mostly the younger patients who had short consultations, whereas the older patients mostly had long consultations (II). (Short consultations were defined as ≤10 mins, and long consultations as ≥31 mins).

Consultation length in relation to the patient’s sex showed that on average, male patients had shorter consultations than female patients (19 vs 22 mins on average) (I).

Male patients were generally overrepresented with regard to short consultations, whereas the proportion of male and female patients with regard to long consultations did not differ from the general male-female proportion in the other consultations (II).

Most patients visited the doctor for the first time or had visited her/him 1-5 times before (I, II). Figure 4 shows the distribution of consultation length in relation to the number of previous consultations to the same doctor.
Figure 2. Distribution of consultation length for the different doctors (min, max, 1st and 3rd quartiles and median).

- Dr VII (n=100)
- Dr VI (n=100)
- Dr V (n=101)
- Dr IV (n=98)
- Dr III (n=112)
- Dr II (n=20)
- Dr I (n=86)
- All doctors (n=617)

Figure 3. Distribution of consultation length in relation to the age of the patients (min, max 1st and 3rd quartiles and median).

- 0-14 years (n=27)
- 15-44 years (n=272)
- 45-64 years (n=175)
- 65- years (n=135)
Figure 4. Distribution of consultation length in relation to number of previous visits to the same doctor (min, max, 1st and 3rd quartiles and median).

11- visits (n=32)

6-10 visits (n=66)

1-5 visits (n=262)

1st visits (n=255)

0  10  20  30  40  50  60
Minutes

Figure 5. Distribution of consultation length in relation to the doctors' assessments of problem character (min, max, 1st and 3rd quartiles and median).

Entirely psychological (n=21)

Mostly psychological (n=71)

Half psychological half physical (n=180)

Mostly physical (n=221)

Entirely physical (n=123)

0  10  20  30  40  50  60
Minutes
Consultation length was also related to the nature of the problem, see Figure 5. The more psychological the problem, the longer the consultation. "Entirely physical" problems made the consultations short (mean length 14 mins), whereas "Entirely psychological" problem required longer consultations (mean length 28 mins) (I).

In short consultations, "Entirely physical" problems were the most common (41% doctors’ assessments, 69% patients’ assessments), whereas in long consultations, "Half psychological/half physical" problems were the most common (42% of both doctors’ and patients’ assessments) (II).

In paper II, the importance of the different factors for the variation of consultation length was studied, and backward stepwise regression analysis was applied (II). This method has been supplemented by analysis of variance and the results are shown in Table II. The two methods yielded similar results, and showed that the variation of consultation length was primarily related to ‘the doctor factor’, the character of the problem and the age of the patient.

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Sum of squares</th>
<th>DF</th>
<th>Mean square</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main effects</td>
<td>21155.9</td>
<td>12</td>
<td>17623.0</td>
<td>25.6</td>
<td>0.000</td>
</tr>
<tr>
<td>The problem character</td>
<td>6206.8</td>
<td>4</td>
<td>1551.7</td>
<td>22.5</td>
<td>0.000</td>
</tr>
<tr>
<td>The patients’ age</td>
<td>1980.4</td>
<td>3</td>
<td>660.1</td>
<td>9.6</td>
<td>0.000</td>
</tr>
<tr>
<td>The doctors</td>
<td>9523.0</td>
<td>5</td>
<td>1904.6</td>
<td>27.7</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>30584.3</td>
<td>444</td>
<td>68.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consultation length and the GPs’ and the patients’ assessments

The consultations were assessed immediately after they were finished by ratings of three questions: about the length of the consultation (Q1), whether the patient had been able to tell the doctor about her/his problem (Q2), and about the character of the problem (Q3).
The ratings showed that the majority of the patients were rather or fully satisfied with the length of the consultation (94% of the consultations) (Q1), and that they were able to tell the doctor about their problems at least "Fairly well" (Q2) (96%) (I). The patients’ satisfaction was equally high in both registrations.

The doctors were somewhat less satisfied than the patients. They were rather or fully satisfied with the length of 77% of the consultations (Q1), whereas 18% of the consultations were perceived to be too short, and 6% too long. (I). The doctors felt that the patients were able tell them about their problems at least "Fairly well" (Q2) in 86% of the consultations (I). The doctors were somewhat more satisfied in the second registration, finding 7% of the consultations too short, and 4% too long (Q1); in 11% of the consultations, the doctors perceived that the patients did not quite manage to tell them about their problem (Q2) (II).

The assessment of patients and doctors differed in relation to the real length of the consultations. The patients were as often satisfied with short as with long consultations, whereas the doctors were more often satisfied with short consultations and less often satisfied with the long ones (II). The real length was thus less associated with the patients’ assessments of Q1 than of the doctors’ assessments of that question.

The third question dealt with the character of the problem (Q3). The doctors somewhat more often assessed the character of the patients’ problems as psychological than the patients themselves (I, II) and the relation between the doctors’ and the patients’ assessments is shown in Table III.

Another difference concerned the gender of the patients. Male patients’ problems were more often "entirely" or "mostly physical", whereas female patients relatively often had mixed problems. This difference showed in the assessments of both patients and doctors, see Table IV.

It was also interesting to look at the relation between the character of the problem (Q3) and the consultations whose length the doctors as well as patients felt to be "Just about right" (Q1). This makes it possible to compare the degree of satisfaction of both patients and doctors with the length of the consultation on the one hand, and the doctors’ assessments of the character
**Table III.** The relation between the doctors’ and the patients’ assessments of character of problem (n=632).

<table>
<thead>
<tr>
<th>Patients’ assessments</th>
<th>Entirely physical</th>
<th>Mostly physical</th>
<th>Half physical /half psychological</th>
<th>Mostly psychological</th>
<th>Entirely psychological</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entirely physical</td>
<td>87</td>
<td>103</td>
<td>42</td>
<td>15</td>
<td>0</td>
<td>247</td>
</tr>
<tr>
<td>Mostly physical</td>
<td>24</td>
<td>73</td>
<td>64</td>
<td>16</td>
<td>1</td>
<td>178</td>
</tr>
<tr>
<td>Half physical /half psychological</td>
<td>10</td>
<td>32</td>
<td>60</td>
<td>32</td>
<td>10</td>
<td>144</td>
</tr>
<tr>
<td>Mostly psychological</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td>Entirely psychological</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>125</strong></td>
<td><strong>213</strong></td>
<td><strong>170</strong></td>
<td><strong>72</strong></td>
<td><strong>23</strong></td>
<td><strong>603</strong></td>
</tr>
</tbody>
</table>

**Table IV.** The distribution (%) of problem character (Q3) for males and females according to doctors’ and patients’ assessments (n=632).

<table>
<thead>
<tr>
<th>Problem character</th>
<th>Doctors’ assessments (Males)</th>
<th>Doctors’ assessments (Females)</th>
<th>Patients’ assessments (Males)</th>
<th>Patients’ assessments (Females)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entierly physical</td>
<td>25</td>
<td>17</td>
<td>46</td>
<td>38</td>
</tr>
<tr>
<td>Mostly physical</td>
<td>40</td>
<td>34</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>Half physical/half psychological</td>
<td>21</td>
<td>34</td>
<td>16</td>
<td>29</td>
</tr>
<tr>
<td>Mostly psychological</td>
<td>9</td>
<td>13</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Entirely psychological</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Chi2 for doctors’ assessments=15.905, p<0.005, Chi2 for patients’ assessments=16.062, p<0.005.
of the problems on the other. The patients found the length of the consultations "Just about right" in 55% of the "Entirely physical problem", in 48% of the mixed problem, and in 50% of the "Entirely psychological problem" and there were the same pattern in both registrations.

In Figure 6 it is shown that in the first registration the doctors were most often satisfied when they found the problem "Entirely physical"; in the second registration they were also often satisfied when they found the problem "Entirely psychological". They were less often satisfied when the problems were mixed.

Figure 6. The proportions of consultations assessed "Just about right" by the GPs in relation to their assessments of the character of the patients' problem.

<table>
<thead>
<tr>
<th>Entirely physical (n=90)</th>
<th>Mostly physical (n=174)</th>
<th>Half physical/half psychological (n=146)</th>
<th>Mostly psychological (n=49)</th>
<th>Entirely psychological (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd registration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st registration</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Consultation length and the "good" consultation (Paper III)

The definition of the "good" consultation was based on questions Q1, Q2 and Q3. Certain specific answer patterns were required. In total, c. one third of all registered consultations were assessed as "good" consultations, some doctors had more "good" consultations than others (ranging from 19 to 46% of the consultations).
Short and long consultations were equally often assessed as "good" consultations, and this was true also of the consultations with the individual doctors. Thus, there were no indications that consultation length was a decisive condition for a "good" consultation, given the agreed operational definition.

The proportion of "good" consultations was not higher when patient and doctor had met several times before, nor were there any differences with respect to the proportion of "good" consultations with regard to the patient’s sex or age.

**The study of PCNs’ considerations (Paper IV)**

The interviews with the primary care nurses (PCNs) showed that they reckoned with a spectrum of circumstances when booking appointments for patients. Their immediate answer to the question "What do you take into consideration when booking short or long consultations?" was that they started from the patient’s problem (whether it was a single problem or several problem, a physical problem or a psychiatric problem). Furthermore, the patient as a person, the patient her-/himself, was considered (whether the patient was a child or an adult, an elderly person, an immigrant, patients who usually need short or long consultations). The PCNs also made allowance for the working pace, working style and experience of the doctor as a person, the doctor her-/himself. The current situation at the health centre also impacted the bookings. The number of available doctors would vary, as well as the access to equipment and special offices. At health centres with large catchment areas, the PCNs adjusted the appointment lists and the booked length of the consultations to the patient’s possibility to get to the centre.

Besides these immediate perspectives of the PCNs’ considerations, there were also reflective perspectives, which did not focus on the importance of a certain number of minutes for a consultation. Then the PCNs highlighted the quality and content of work, and time consumption in the long-term perspective. These reflective perspectives could also be related to the factors mentioned above, and are presented in the following.
The patient's problem: It was important that the patient's 'real' problem/s were uncovered and could be dealt with. To achieve this, the PCNs took notice of first consultations with an unknown problem and patients with complicated or unclear problems. The PCNs underlined how important it was that they listened to the patients and they trusted their intuitive ability, developed over some years of telephone work, to make a preliminary judgement of the patient's problem.

The patient her-/himself: A patient-oriented approach was often preferred and was seen as rewarding in a longer perspective. The PCNs tried to create a good atmosphere for the consultation, and patient satisfaction was important. The PCN evaluated the degree of urgency which often was a matter of the patient's worry, and short and prompt consultations could sometimes be "squeezed-in" the same day. Sometimes, however, the patient wanted a long consultation where she/he could talk to the doctor in peace and quiet without the usual busy rush.

The doctor her-/himself: The working style of the doctor seemed to be connected with the length and quality of the consultation in a number of ways. Continuity often entailed both higher patient satisfaction and shorter consultations. The patient might ask to see a certain doctor. However, the PCN would occasionally suggest another doctor with the appropriate competence for a certain problem. Adequate help would save time in the long run whereas a less capable doctor might not grasp the problem in which case time might be wasted and a dilemma would be created for the health centre as a whole. The doctor's concern and ability to understand the patient was not related to her/his working pace. Another aspect was a patient-oriented approach which had a bearing on the doctor's flexibility and adaptability to the needs of the patients as these emerged in the course of the consultation, even if it made the consultation longer than planned. However, there were limitations for such longer consultations, and the doctor must also be able to keep the limits and finish consultations which were seemingly just dragging on.

The current situation at the health centre: An overall goal was to establish a trustworthy relation between the health centre and the people in the catchment area. Accessibility and confidence were correlated, and the PCN and her clinical work were important for both. However, there were
differences between the PCNs, due to experience and personality. The PCNs' professional knowledge and relations with the patients were important, especially when there was a certain time pressure. Particularly in very busy surgeries, the co-operation between nurses and doctors was intensified. The importance of a common basic view with regard to the work was emphasised.

The interviews with the PCNs showed that the appointment system was used more as a queuing system than as a time-budget system. "Standard time", i.e. 20-30 mins, was often enough. The doctors worked at their own pace, and short and long consultations cancelled each other out in the course of the working day.

The investigation suggests that the length of a consultation is the outcome of an interplay between many factors and circumstances at different levels. Who the patients are, what their problems are and how the doctors go about their work in the actual consultation situation are factors of importance for the length of the individual consultation. The anticipated length of the booked appointment is of some importance here. The doctor's general medical practices and her/his co-operation with the nurse are associated with the accessibility of the surgery and the patient's trust in the work done there.

The study of FAs (Paper V)

The frequent attenders (FAs) were 1.7% of the population of the catchment area of the health centre; they had 15% of the total amount of consultations whereas the contrast-group patients (CPs) had 4%.

Who were the FAs?

In total, female patients constituted 63% of the FAs, and the older patients dominated. In relation to their proportion of the population, the FAs were overrepresented among boys 0-6 years, women 25-64, men and women ≥65 and particularly women ≥75. More FAs than CPs were ‘geographically mobile’, i.e. they were domiciled outside the catchment area but moved
there at the time of the investigation. The proportion of FAs living in low income housing areas did not differ from that of the CPs, but FAs as well as CPs were more often domiciled in low income areas than could be expected with regard to their proportion of the population of these areas.

During the period of 1992-1994, 9 FAs and 7 CPs died, aged on average 66 and 77 respectively (NS). The follow-up of civil status (1994) showed that there were more divorcees among female FAs than among male FAs and CPs (FA females 25.2% CI±8.8%, CP females 9.2 % CI±5.8%).

**Consultation patterns of FAs and CPs**

The FAs had on average 6.3 consultations whereas the CPs had on average 1.7 consultations during the calendar year 1991. Also during the years 1988-90 and in the spring of 1992, the number of consultations per year was higher for the FAs than for the CPs, even if the differences were smaller during these years than during the FA year. Every five FAs had ≥5 consultations during at least one of the years before and/or after the FA year, but only three FAs had ≥5 consultations per year during the whole period of investigation.

The total amount of time appointed for consultations during the FA year was on average 140 mins for FAs, with considerable variation up to a maximum of 600 mins. The CPs' appointments amounted to on average 35 mins. The booked consultation length was the same for FAs and CPs (average length 24 and 22 mins)

The number of problems per patient during the FA year in 1991 was 4.7 per FA and 2.2 per CP. Three FAs had only one and the same problem at their consultations, whereas 81 CPs had only one problem during 1991. Two out of three FAs had problems in the musculoskeletal organs, psycho-social or social problems, and one out of three FAs had problems in all these areas. Common problems in the CPs were respiratory problems (c. 1/3), problems in the musculoskeletal organs (c. 1/4), social problems (c. 1/4), or problems in the circulatory organs (c. 1/4).
The number of Other Contacts with the doctors besides the actual face-to-face consultations, was higher for the FAs than for the CPs, and higher for older than for younger FAs. More often than the CPs, the FAs saw the permanent GPs (76% vs 70%, p <0.05). Older FAs had higher continuity in their consultations than younger FAs. As shown in Table V, female FAs tended more often to consult female GPs, whereas male FAs tended more often to consult male GPs.

Table V. Average number of consultations with permanent GPs (3 males, 2 females) during 1991 by Frequent Attenders and Contrast-group Patients matched by sex and age (males n=69, females n=110)

<table>
<thead>
<tr>
<th></th>
<th>Frequent attenders</th>
<th>Contrast group Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Females</td>
<td>Males</td>
</tr>
<tr>
<td>Female GPs</td>
<td>3.57</td>
<td>3.03</td>
</tr>
<tr>
<td>Male GPs</td>
<td>2.89</td>
<td>3.13</td>
</tr>
</tbody>
</table>

The doctors’ decisions and measures regarding FAs and CPs

There were certain differences between the FAs and the CPs with regard to care measures taken during 1991, which are shown in Table VI.

Table VI. Comparisons of the care of Frequent Attenders and a Contrast-group of patients matched by age and sex (n=179) to GPs at a health centre during 1991.

<table>
<thead>
<tr>
<th></th>
<th>Frequent Attenders</th>
<th>Contrast group Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of prescriptions</td>
<td>5.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Average cost/pat for x-ray, laboratory tests, SEK</td>
<td>410</td>
<td>131</td>
</tr>
<tr>
<td>No of patients referred to hospital specialists</td>
<td>79</td>
<td>36</td>
</tr>
<tr>
<td>No of patients referred to paramedical staff</td>
<td>66</td>
<td>14</td>
</tr>
<tr>
<td>No of patients where rehabilitation meetings occurred</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>No of adult patients where family members participated in consultations</td>
<td>15</td>
<td>3</td>
</tr>
</tbody>
</table>
The number of prescriptions per patient varied considerably among the FAs (0-33). Nine FAs and 59 CPs did not get any prescriptions at all from the health centre during 1991. The average costs of laboratory tests and X-ray examinations were 410 SEK for FAs and 131 SEK for CPs (at the 1991 price level).

More FAs than CPs were referred to hospital specialists, 44% and 20% respectively. These figures correspond to referral rates calculated per consultation of 7% for FAs and 12% for CPs. Thirty-seven percent of the FAs and 8% of the CPs received referrals to the paramedical staff.

Rehabilitation meetings with representatives of the Social Insurance Office, the Labour Exchange and others took place with regard to 17% of the working age FAs and 1% of the working age CPs. Family members sometimes accompanied the patients to the consultations, even when the patient was an adult person, and this happened more often with the adult FAs than with the adult CPs (9% and 2%, respectively).

Comments and discussion

The problem area

This work is focussed on time and the consultation, and both concepts are vital in general practice work. In Scandinavian research on general practice consultations, the patient-doctor relationship has been a central issue. Seminal studies have highlighted the development of certain notions pertaining to the consultation (2), how to formulate questions and built a mutual doctor-patient relation particularly with female patients (4), what the patient expects when consulting a GP (5), factors of importance for a good outcome of the doctor-patient meeting (50-51). Time used per consultation, and the implications of short and long consultations for a good outcome have, however, not been studied before. When time consumption has been considered at all, it has been a comment in the margin; more systematic studies of time in relation to GP consultations have not been carried out in Sweden before.
The aim of this work was to focus on these central concepts and to study factors which are of relevance to the length of a consultation as well as time consumption in this context in a wider perspective. This thesis thus explores a relatively new field.

The use of time and how it is perceived in personal interaction is indeed of general human interest. However, this work applies the time concept in a decidedly medical context, viz. the time used in consultations with GPs in a short and long term perspective. One point of departure for this work was the familiar experience to many GPs that there is not enough time to do a good job of a consultation. This pertains to the individual meeting with the patient as well as to the total time used for consultations during a longer period. Furthermore, there was insufficient knowledge about the real length of consultations and how time used for consultations could be regarded in a long-term perspective. The work has thus an explorative character.

Below, the three studies are commented on from the point of view of methodology.

**General methodological comments**

The character of the problem made it necessary to apply different methods, quantitative as well as qualitative. Using different methods may make the picture of the consultation and its length more varied and nuanced than a more strict selection of research methods (87).

The three studies apply different time perspectives. In the first study (Papers I-III), the real length of the consultations was studied, using watches and counting minutes. Mean values were computed, characteristic features of short and long visits were studied. Furthermore, assessments by patients and GPs of the length of the consultations were registered.

In the second study (Paper IV), focus was on the experiences of the primary care nurses and their considerations in booking long or short appointments. No watches were used here; the nurses' own concepts of time (short or long time) were applied. In the interviews they sometimes talked about real time
in terms of minutes, but the number of minutes used for a consultation was not the foremost concern.

In the third study (Paper V), the total amount of booked time was registered for patients who, during one particular year, had attended one particular health centre frequently resp. infrequently; data were collected from the appointment system about the time booked for them to see a doctor.

The studies gave insights into circumstances and factors of importance for consultation length; and the outcomes of the studies pointed in the same direction. At the same time, however, the results of the different studies modulated and supplemented each other, which facilitated our understanding of the factors that impact the length of a consultation.

Three factors recurred frequently and were evidently decisive, viz. 'the patient as a person', 'the character of the problem' and 'the doctor factor'. Besides these factors working inside the consultation, there were important external conditions such as the current situation at the health centre, the working style of the nurse and the accessibility of the surgery. Furthermore, the character of the catchment area was of some importance. The length of the consultation is thus dependent on internal as well as external factors.

Below, the selection and methods utilized in the three studies are discussed.

Aspects of the material

The character of the catchment area (whether it is a densely or sparsely populated area, how far it is to the nearest hospital) influences the GP's work, and the idea of time may be different in different contexts (88). The studies were all carried out in the Umeå health care district in health centres run by the Västerbotten County Council, and the principle conditions for primary health care were the same throughout the county of Västerbotten. Privately run primary health care existed only to a limited extent, and has not influenced the results of this study. The fact that Umeå is a medium-sized town with a hospital has however had some bearing on the medical panorama of primary health care, and thus also on the content of the
consultations in the central town district. This precondition is true of primary health care in Umeå as well as in Sweden at large.

The appointment system for consultations with GPs was developed by Spri (The Institute for Planning and Rationalizing of Health Care) (70), and its guidelines were fairly widely accepted and implemented during the 1970s and 1980s; the activities at many Swedish health centres followed similar patterns. How the individual GPs work may naturally vary a good deal, at least in its details. The consultations studied in this thesis were carried out at ordinary health centres of the type that were built and organised in the 1970s and 80s, and none of the centres was extraordinary, such as a developmental centre or a research unit, in any way.

The studies are thus carried out in contexts of the general Swedish health centre type. The materials of the three studies contained in this work differed in focus and will be commented on in the following.

The studies of consultation length (Papers I-III)

Participating doctors: The seven doctors participating in the first study constituted just over one third of the number of permanent GPs in Umeå at the time of the study, and in their clinical work they had the same working conditions as the other GPs in the area. At first sight, they appeared to have much in common: they were all men, they were of about the same age, they had each 5-10 years experience of this kind of work and they were all interested in developmental work.

At close inspection, however, there were many differences among them, and this was also reflected in the outcome of the study. There was considerable variation in consultation length, and the number of "good" consultations varied a good deal between them. These differences between the doctors reflected differences in their working-styles, and cannot simply be explained by differences regarding the catchment area or the characteristics of the patients. I have suggested that it should be called 'the doctor factor' as a general term for features or characteristics which every doctor has to some extent, expressed in her/his working style and mode of behaviour in the consultation.
The participating doctors were, however, rather few, and they were all men. This delimits the generalizability of the results. Still, the study may be used as a starting point and as comparison material, and can be seen as a preliminary analysis of a research field that has not been investigated in Sweden before.

The differences between the doctors support the suggestion that 'the doctor factor' is an important factor and should be further investigated.

**The patients:** One question regards the mix of patients included in the first study. The GPs worked at different health centres in the town of Umeå, and often had special responsibility for patients in certain parts of the catchment area of the respective health centres. There was no list system at the time, and none of the doctors had a special surgery; all of them were accessible for patients from the catchment area. There were certain differences in character of the housing areas within the districts where the doctors worked. Some doctors had only patients from the central parts of the town, whereas others also had patients from the villages surrounding the town, and one of the doctors had a somewhat larger proportion of older patients than the others.

The distribution of age and gender in the material agrees with other primary care patient populations in the early 1980s (89, 90); however, the proportion of children was low in our material, 5%, because of the actively exclusion of younger children judged not being able to answer the questions. Still, the missing data are limited, which probably indicates that the doctors were highly motivated, the investigation was well-organised and the patients found the questionnaire easy to fill in.

One risk for a biased result is that the doctors might consciously "forget about" consultations with "difficult" patients and consultations that are felt to be unsuccessful. The risk for such "forgetfulness" cannot be altogether ignored, and it might warp the proportion of satisfied patients.

Difficulties of this kind were discussed in the research circle before launching the investigation. All the participating doctors agreed that the questionnaire should be handed out to the patient even if the doctor felt that
the consultation had been unsuccessful. However, consultations may still have been "forgotten" more or less consciously; we are convinced, though, that "difficult" patients have only most exceptionally, been excluded.

The registered consultations can thus be regarded as satisfactorily representative of the surgeries of the respective doctors, with the exception that the number of children is below average. The number of registered consultations given by the doctors who participated in both registrations was large enough to give a good idea of their average consultation length. Campbell et al have estimated that it is sufficient with c. 120 consultations to reach a high degree of certainty with regard to the mean consultation length of individual doctors, termed ‘stabilization values’ (91).

To sum up, it is claimed, that except for children, the studied patients are sufficiently representative of the patient population of health centre patients in Umeå at the time of the study.

The study of PCNs’ considerations (Paper IV)

A number of selected nurses were interviewed, all having long experience of primary care and working at health centres of different types. The purpose of this strategic selection was to include nurses with as broad and deep experience as possible of the current issue. Most of the nurses had worked at several health centres, in the district and/or at health centres in other parts of Sweden.

The study of FAs (Paper V)

The third study comprised the total number of patients who were frequent attenders to GPs at one of the health centres in the district.

The health centre in question had the same duties and resources as other health centres. The character of the catchment area, an urban district with a stable population, few industries, and situated near a big hospital, implied that very few grave emergencies and casualties were taken care of at the health centre. This is, however, true of many of the Swedish health centres.
The social structure of the catchment area was also of importance, and the health centre served several small housing areas of different socio-economic types.

The study focussed on the patients who were the most time-consuming cases during one year at the health centre as a whole. The FAs studied were the 5% most frequently attending patients in the year 1991, and this criterion for selection has also been used in other studies of FAs (92). Whether it was the doctor or the patients who initiated the consultations has not been studied. A doctor can "create" FAs by asking patients to come back for check-ups within short intervals. Another doctor may instead follow up her/his patients by telephone or otherwise, and will thus get fewer patients coming back for additional consultation, and thus fewer FAs. Each of the GPs holding permanent positions had the main responsibility for one part of the catchment area, and the health centre was too big to allow the individual doctor's special profile and working style to impact the total number of FAs at the health centre as a whole.

The contrast-group were selected with patients matched by sex and age. The contrast group could have been selected in other ways, such as by a random selection in the population, or among the average patients at the health centre. However, as one of the objectives was to study the measures taken with the patients at the health centre, it seemed reasonable to compare the FAs with matched patients. By relating the data about CPs and FAs to data about average patients and the population in the area, there are some possibilities to achieve a more nuanced picture of what distinguishes the FAs.

The results largely support the results of other studies of FAs. FAs seem to have certain distinctive features regardless of where the studies have been carried out: they are on average somewhat older, the majority are women, and there is a high frequency of psycho-social problems (28, 92-95). Some of these studies were carried out in Sweden during a 25 year period; differences seen here might reflect the development of primary health care over the years. What distinguishes, to some extent, the results of the present study from these earlier Swedish studies (92-94) is the existence of rehabilititating measures taken with FAs in the present study.
Aspects of the methods

The methods for gathering data (questionnaires, interviews, registration of patient record data etc.) applied in the three studies are discussed below.

The studies of consultation length (Paper I-III)

The questionnaire and the assessments: When evaluating consultations with a doctor, questionnaires have often been used, containing questions to the patient about the degree of her/his satisfaction with different aspects of the consultation. It is customary to ask, among other questions, about the length of the consultation and how well the doctor and the patient managed to communicate. In two recent metastudies of a large number of studies within this field it was revealed, however, that there were considerable difficulties inherent in this type of studies, as well as imperfections in the studies carried out during the 1980's (96, 97). Thus, Wensing et al maintain, this field did not proceed very far during the 1980s, and the methods used at that time were too limited in a number of ways, such as the aspects studied (often too few), the methods (whether the questions were asked immediately after the end of a consultation or after some time, how the questionnaires were distributed), discrimination of questionnaires (types of scales), and the rate of "no response" and missing data. Furthermore, it was noted that few studies made use of, or further developed, questionnaires that had been published or utilized in other studies. Instead, new questionnaires were often produced and used, and the validity and reliability of these were often not satisfactorily shown.

This criticism also affects the questionnaire of the present study. The answers to the three questions posed can of course not give a complete picture of the complicated interplay that characterizes a consultation. On the other hand, they are key questions when evaluating a consultation.

The delimitation was the result of careful consideration. The real length of the consultation was in focus, and one objective was to study the consultation with sufficient reliability without interfering with the normal course of events. A more extensive questionnaire would have put a strain on the activities at the surgery, and may have thwarted one of the main purposes of the study, i.e. to find out about the real length of the
consultations. The registrations were made continuously during ordinary surgery hours, and there were no changes of the ordinary routines because of the ongoing study. Furthermore, a more extensive questionnaire might have entailed that fewer doctors had participated, and the risk for non-response and missing data would probably have risen.

A special objective of the study was to compare how doctors and patients assessed the consultations. It was the direct and so far as possible unmodified impressions that we tried to catch, i.e. the immediate view. The patients’ and the doctors’ opinions of the consultations at a later stage, or the effects on the patient’s health status were not the objectives of this study. The comparison between the doctors’ and the patients’ immediate impressions was however one of the strong points of the study. Such comparisons of doctors’ and patients’ views on the course and content of a consultation were new at the time. Later, other studies have been published where the focus was comparisons of the impressions of patients and doctors regarding the course of a consultation (51 59, 98, 99).

How well did the questions cover the issue, i.e. the assessments of patients and doctors of the aspects studied? The research circle discussed this among themselves, but also with other categories of staff as well as with patients. The general opinion was that the questionnaire was easy to fill in, and the questions were clear and easy to understand. The high reply frequency on the part of the patients seemed to indicate that the questionnaire was user-friendly and that the patients were able to understand the meaning of the questions. There was, however, a number of missing responses to Q3 (in total, 4 %), foremost from older patients and first time patients. Other registered data from consultations where the patient had not answered Q3 showed no differences compared to other consultations. The concordance between the doctors’ assessments of a video-taped consultation also indicates that the questionnaire and the questions were sufficiently reliable with regard to the doctors’ assessments of the consultation.

The compliance with other investigations which show that in general, patients are satisfied with the consultations, and often more so than the doctors, also corroborates the relevance of the method (96, 99,100). There are, however, methodological difficulties at play when studying patient satisfaction; to reveal, with any certainty, a patient’s dissatisfaction with the
consultation is quite difficult, because the patient is in a weak position and wants to be on good terms with the doctor. If the doctor is the one who hands out the inquiry form to the patient, the latter may feel obliged to please the doctor. The results of the ratings of Q1 and Q2 must therefore be regarded with a certain cautiousness, keeping these difficulties in mind.

Given these objections, certain nuances in the answers should be pointed out. The patients were, by and large, more satisfied than the doctors. The satisfaction of the patients was not associated with differences in consultation length; the patients were equally satisfied whether the consultations were short or long. The doctors, on the other hand, tended to be more satisfied with short than long consultations, and consultations which the doctors found too long, were really very long. When evaluating the consultations, the time factor seemed to be more important for the doctors than for the patients.

One interpretation of these results is that they reflect a mode of working implying that the doctors went on with the consultation until, in agreement with the patients, they felt that the consultation had come to an end. Sometimes this happened quickly, sometimes it was a lengthy procedure. If the consultation was shorter than expected with regard to the booked appointment, the doctor could finish it in peace and quiet before the arrival of the next patient, and there was enough time. If instead the consultation was protracted and was running over the allotted time, the doctor would sometimes feel that the consultation was too long. Doctors and patients thus seemed to assess the consultations from different angles, and the (lack of) compliance with the booked appointments may have impacted the doctors’ assessments.

**Effects of the design of the study:** It should also be discussed whether the results may be explained by the doctors’ modifying their behaviour in the consultations during the investigated period, so that the results do not give a true picture of their usual working style. Is it possible, for example, that the doctors may have prolonged the consultations during that period in order to satisfy the patients? The following reasons disagree with such an interpretation: The working conditions of the studied doctors, when they were doing clinical work, did not differ from those of any other GP in the area. The average consultation length in the two batches of registrations was
the same for the total amount of registrations as well as for most of the individual doctors. The appointment procedures were not changed because of the investigation, and the GPs carried out their surgeries as planned by the PCNs. Furthermore, the average consultation length was on a par with that of another study carried out in the same area (20), and with booked appointments in Paper V. Nor was there any time at disposal to prolong consultations in addition to the necessary flexibility, which was shown in the interviews with the nurses (IV). It is thus improbable that the doctors’ working pace was changed because of the study, and that this would explain the satisfaction of the patients.

Is it possible that the fact that an investigation was going on might have induced the doctors to make an extra effort when seeing the patients? Such a risk/possibility cannot be ignored. It is, however, improbable that a changed working style could have remained stable in the continuous work with patients day after day, if the doctor had not had the necessary qualities for a change. Doctors, as previously mentioned, tend to find it difficult to change their working styles even if they want to and/or are given more time (7, 38, 39, 47).

The results of the first registration may, however, have influenced the doctors’ ratings in the second batch. There was a difference between their ratings in the two registrations in that all doctors showed relatively less "dissatisfaction" in the second registration. There was no difference with regard to the percentage of "dissatisfied" patients in the two registrations. These results indicate that the doctors’ "sighing" for lack of time decreased in the period between the two registrations, and that this change of mood was not due to a different length of the consultations. The doctors’ increased job satisfaction may rather be due to the discussions in the research circle, and the fact that each of the participating doctors was informed of the results with regard to her/his consultations.

**The combinations of Q1, Q2 and Q3:** In Paper III, consultations which were operationally defined as "good" consultations were studied. A "good" consultation implied that the patient was quite satisfied with the length of the consultation (Q1), her/his possibilities to tell the doctor about the problem (Q2) and that patient and doctor had perceived the character of the problem in a similar way (Q3). The study was, as previously mentioned,
focussed on the immediate impressions of doctor and patient, and there are no data concerning the results of the GCs in a long term perspective. Furthermore, every doctor knows from experience that even consultations which are seemingly unsuccessful may still yield "good" results in the long run.

Given this reservation, it can be stated that the results do not indicate that the real length of the consultations was decisive for the "good" consultations in total or for any one of the doctors. The differences that emerged could foremost be attributed to 'the doctor factor'.

In summary, the results of the first study indicate that the variations in consultation length were associated with 'the doctor factor', the character of the problems and the age of the patient. The patient's immediate satisfaction with the consultation is likewise associated with 'the doctor factor', but not with the number of minutes per patient.

The study of PCNs' considerations (Paper IV)

Data collected at interviews must be evaluated with consideration of the relationship between the interviewer and the interviewee in the particular situation where the interview takes place. In this study, there were differences with regard to sex, occupation, power and position between the interviewing doctor and the interviewed nurses. Efforts had to be made to optimise the interview situation; possible doubtful points with regard to the handling and reporting of interview data were clarified before the start of each interview.

The nurses tended to reason rather similarly, which became evident as the interviews were carried through; this can be seen as confirming the validity of the results (101). The interviews towards the end of the investigation gave more and deeper information than the ones carried out at the start, which may be explained by the fact that experiences from the previous interviews could be used as a background for the later ones, but also that the interviewer became more experienced and the interviewing technique was improved.
That the nurses tended to think in similar lines does not imply that there were no differences between them. These differences were partly due to the fact that the respective health centres were different with regard to catchment areas, organisation and priorities, but also to the fact that the nurses differed from each other with regard to experiences and interests.

A preliminary draft of Paper IV was presented to the interviewed nurses to get their views on the results and ideas expressed in the paper. The nurses confirmed that the account was in accordance with what they had said in the interviews and with their work experiences.

Processing data from interviews is a continuing process, and it is not easy to say when that process should be concluded. I find, when rereading the interviews and Paper IV, that certain categories could have been classified differently and in a more precise way; statements and codes that lead up to a certain category could have been assigned to a different category, etc. Thus, categories which were labelled ‘the patient’s problem’ in the ‘the reflective perspective’ may be combined in a category called ‘identification of relevant problems’, and categories labelled ‘the patient’s him/herself’ with ‘patient-orientation’. Under the heading of ‘the doctor him/herself’, essential ‘characteristics of good doctors’ practices’ are described, and under the heading of ‘the current situation’, a ‘well-functioning health centre’ is described.

In the reflective perspective, efficiency at work is related to quality and not to the length of the consultations. The results of the interviews with the nurses can be summed up in the following way: An effective health centre is one that is accessible to the patients and is trusted by them. The staff has a corporate care philosophy, and there is good co-operation between all categories of staff. The doctors are competent and concerned with the continuity at work. Their approach is patient-oriented they care for the patients, their working-styles are flexible, and in the consultations they have an open mind for the patient’s problems.
The study of FAs (Paper V)

The third study was retrospective and based on data from patient records and appointment book. These data originated from clinical work, and had not been intended for research purposes; the validity of the data may thus be questioned. One issue here is how the content of the consultations were documented. When the health centre was first started, fixed routines for keeping patient records were established in accordance with the guidelines for Swedish health centres (84). The GP’s patient record was seen as an instrument for planning, implementation and follow-up of public health care, and was not just the individual doctor’s memoranda. (85). The essentials of the GPs’ work with the patients was mostly realistically reflected in the patient record, even if the extent of the documentation varied between the doctors.

International Classification of Primary Care (86) was used for the classification of the patients’ problems, because it has a distinct primary care profile and a broad applicability. The purpose of the classification was in the first place to describe the most time-consuming types of problem rather than to classify clear diagnoses. The codification of the patients’ problems was initially done by two doctors in co-operation, and in this way, mutual agreement about the classification of the problems was reached without difficulty. By using the same procedure with the CPs, possible bias in the codification was eliminated.

The registered time was the total amount of booked consultation time during 1991; data for most of the consultations were obtained. However, booked time is not always the same as the real length of the individual consultation. But for a large group of patients, and in a longer perspective, booked time does give a fairly good idea of the real amount of time used for consultations (13).

In summary that means that registered data have a sufficient validity for the purpose of the study.

Characteristics of FAs and their consultations
The problem character of FAs was as heterogenic as the sociodemographic pattern. A limited number of patients became FAs during periods of
diagnostic investigations and therapeutic sessions of serious diseases demanding repeated visits. Chronic diseases as cardiovascular diseases, diabetes and inflammatory diseases of the musculoskeletal system occurred among FAs, especially among older patients, and FAs made more consultations than CPs for such diagnosis. However, these diagnosis seemed not to be most crucial for frequent attending.

The results show that FAs often had several different problems and not seldom a set of physical and psychosocial difficulties. These results coincide with the results of studies of FAs in other countries (29, 102-106).

A deeper understanding of the complexity of the problem of FAs is given in studies that show that among FAs there are patients who have been victims of abuse and violation, which have resulted in physical and mental ill-health (107) and also people whose problems previously have been misjudged, resulting in a process of somatization and somatic fixation (108, 109). One group needing particular attention are men in difficult life situations where drugs and alcohol abuse or suicide may be imminent risks (110). Patients with more traditional psycho-somatic diseases and complaints, which may have a deep existential background, are another category among the FAs (111). The children among the FAs often belong to families where there is an higher-than-average tendency of ill-health (112).

These types of complex problems were at hand among the studied FAs which underline the need of further and more individual studies.

More often than the CPs, the FAs consulted the permanent GPs, and this was due to the policy of the health centre in order to render the care of these patients more effective.

Few patients were FAs for any longer periods; the majority of them seemed to be FAs only for a limited period. The episodic character of frequent attendance further points to the need for follow-up studies of this category of patients.

The difference of costs for laboratory tests and x-ray investigations between FAs and CPs may reflect the complexity of the FAs’ problems. However, the cost must be seen as relatively limited compared with the cost of other medical treatments or care measures taken with the FAs.
The FAs received more referrals to hospital specialists and paramedical staff than the CPs. Furthermore, there were more contacts with the Social Insurance Office and the Labour Exchange, and the FAs were more often accompanied by relatives when consulting a doctor. These circumstances reflect that the health care for working age FAs often implied rehabilitation measures, and underlines the GP’s key role as co-ordinator in the health care system. The need for co-ordination within the health care system as a whole is further supported by the fact that the FAs, by their own initiative, may also have attended other providers of health care parallel to the GP surgery, which has been noticed in other studies (95); this has not been investigated in this study.

However, it must be underlined that most of the FAs were not referred to any other provider of health care. Instead the health centre as a whole was the base for the care of FAs. This illuminates the need for co-operation and co-ordination of care within the health centre illustrating some statements of the PCNs (IV).

There are not many points of reference at hand when one wants to evaluate the annual time consumption for consultations. One possibility is to look at figures representing average time spent in meetings by patients and doctors in connection with short time psychotherapy (f.ex. 10 sessions of 40 mins each), hospital stays (admission and discharge, rounds, possible operations and treatments, preceding consultation and final follow-up at the surgery), or child health care (20 min/child/year); in comparison with these figures, the average time booked for the FAs during one year (140 min), seems less extensive; it is thus possible that FAs would have profited by more time. Booked appointments are, however, only part of the time spent on these patients. This is evident from the many documented Other Contacts with the doctor besides the actual visits, in particular when the FAs are middle-aged or elderly persons.

The doctor’s ability to establish a constructive dialogue with the patient in the consultation is crucial for the outcome of the care. The FAs constitute a professional challenge to the GP because of their often complex and serious problems and the amount of health care services that they consume. This group of patients should therefore be further studied, and more precise issues should be formulated.
The gender perspective

During the ten years since the first study of this work was carried out, there has been a period of development and change in research traditions which to some extent is mirrored in this work. One feature of this development is the increased importance of the differences between the sexes, and some comments on the present work in a gender perspective are given below.

All participating doctors in the first study were males, and it can thus be questioned whether the outcome would have been different if some of them had been female. In the literature there are reports indicating that female doctors give somewhat longer consultations, they have higher continuity especially with respect to female patients (34-37), and they communicate more with their patients than male doctors usually do (113). It is thus possible that the results would have been different if female doctors had participated.

In the interviews with the PCNs (IV) it was not found, however, that the nurses should book appointments of different length for female and male doctors depending on the gender of the doctor. It is true that the PCNs had noticed certain differences in the working styles of the doctors, but these differences were not gender-bound. In the FA study, (V), it was noted that female doctors tended to have higher continuity with female FAs and that male doctors tended to have higher continuity with male FAs. These findings indicate that there are important gender-specific patterns in the patient-doctor relation, but also that there are considerable variations in the working styles of the doctors regardless of gender, and that the differences of consultation length between male and female doctors are rather limited.

Does gender impact the doctor’s assessment of the patient’s problem? It is reported from Australia that male doctors tended to psychologize more in their contacts with female patients, and that they had judged even healthy female patients as serious mental cases (114). On the other hand, a Californian study found no differences between the work of male and female doctors with male and female patients (115). The reason for this was partly that there were both male and female doctors at the respective surgeries.
What differences were there between female and male patients in the present work? Most of the patients in general practice work are women, and in the present work the female patients comprised about 60% of all patients. Female patients usually had somewhat longer consultations than male patients, and they came on average somewhat more often to see the doctor; more booked time was thus consumed by female than male patients. In the first study it was found that the character of the problem usually was somewhat different with regard to male than female patients, as men more often had straightforward physical problems whereas women somewhat more often had mixed problems.

Differences and similarities between male and female patients and GPs are thus of interest for further studies.

'\textit{The doctor factor}'

This work shows that ‘the doctor factor’ is important for the consultations with regard to their course, content and quality. Further studies of ‘the doctor factor’ as such and in different contexts are urgent. The question arises what really constitutes ‘the doctor factor’, and some ideas are given below.

\textbf{What is ‘the doctor factor’?}

What happens in the course of a consultation, is a matter of interplay between the doctor and the patient. The consultation basically comprises interaction between two people of whom one has a problem, and this problem is the concern of both. ‘The doctor factor’ is a term covering the personal features and characteristics of the doctor which have a bearing on this interaction, the way it develops and the course it takes in the face-to-face consultation as well as in a long-term perspective.

Everything the doctor does or does not do in the consultation are manifestations of the distinctive features of ‘the doctor factor’. Such features show in verbal and non-verbal communication, the extent of physical examination of the patient and number of tests, referrals, sick-
listings, prescriptions and follow-ups. The key feature is the ability to establish contact and reach consensus with the patient and rapport is essential. ‘The doctor factor’ also contains the ability to use empathy, i.e. to imagine her/himself in the position of the patient with regard to the patient’s difficulties, physically as well as mentally. Empathy is not limited to psychological aspects of the meeting but also contains a physical dimension, the ‘bodily empathy’ which is an integrated part of the clinical competence of the GP (2).

One aspect of ‘the doctor factor’ is the ability to see and perceive a problem. What one doctor apprehends as difficult, another doctor may see as a trivial matter. Each doctor has her/his own frame of reference, characterized by experiences in a wide sense, including gender, age, training, etc. What a doctor ”chooses” and is able to perceive in the course of the consultation is crucial. The choice will be expressed in her/his communication. How vital the communicative ability is, is seen in a British study, published 20 years ago, where it was noted that 85% of correct final diagnoses were reached only by using anamnesis data (116). Physical examinations and laboratory investigations were less important. That GPs behaviour in consultation have implications also for the health of the patients is shown in a Dutch study of GP’s working style (117). It was found that GPs who had a patient-oriented working style, including target-oriented examinations and investigations, had healthier patients and wrote fewer referrals and prescriptions than doctors who worked in other ways.

When discussing time and the consultation, it is rewarding to broaden the perspective from the individual consultation to a longer-term course of events. The GPs consultations are carried out in different manners, and it can hardly be maintained that a consultation must go on for a certain number of minutes to be a good consultation. Still, this does not imply that consultation length is unimportant or of little consequence. On the contrary, every GP tends to have an individual consultation length which is associated with her/his ‘doctor factor’ in relation to a certain patient (problem, age, etc.) A doctor may work quickly with a patient on one occasion and devote more time to this patient when she/he returns for a new consultation, whereas another doctor would rather spend more time on one thorough consultation with a patient in the hope that the patient would not need to come back for some time. The length of a GP’s consultation is thus
primarily a matter of the GP her-/himself. Demands that a time-limit should be imposed on consultations must be rejected on these grounds.

Overall principles for surgery work are of great importance for the GP’s consultations. One of the aims of primary health care is good accessibility, which means, among other things, that it should be possible to see a doctor within a reasonable period of time. This implies that the GP must work efficiently. Rutle discussed accessibility as a factor of importance for the relation between the length and quality of the consultation (60); here lies a dilemma that must be overcome by the GP. The GP’s endeavour to give good care to the patient sitting face-to-face to her/him may infringe on other patients’ possibilities to get medical service. To devote a lot of time to a few patients and leave the rest of the patients unattended to, is hardly good general practice policy; nor is it advisable to rush through a consultation in order to meet strong demands for accessibility.

The context, i.e. the situation in which a consultation takes place, impacts the way ‘the doctor factor’ is realised and how the consultation proceeds. There is interaction between ‘the doctor factor’ and various circumstances such as local routines, co-operation, agreements with colleagues and other members of staff, the patients’ attitudes to waiting time, the characteristics of the catchment area and the rules and regulations imposed by the authorities which control the activities.

It is essential that the surgery context and the implications of different kinds of rules and routines based on political or professional trends should be investigated, starting from the consultation and the doctor-patient meeting.

**Figure 7** gives an overview of ‘the doctor factor’.

**Time in and between consultations**

Doctors are often not fully aware of their realisation of ‘the doctor factor’. The members of the research circle, for example, were relatively unaware of their own consultation length and how quickly or slowly they worked. Balint noted that doctors were often not conscious of the way they "dosed"
themselves (6). A recent Swedish study shows that the psychological strategies of doctors (different specialities) varied in the consultations, and that they were often instinctive. The doctors did not notice how their way of behaviour influenced the patients (118). To develop the quality of the work, it is necessary to heighten the GPs' awareness of their working styles and the implied effects. This may take some time to achieve, but that time will be well spent. Such a development often entails enhanced patient-centredness and increased job satisfaction (6, 62, 63), and there are studies indicating that such directions of work are associated with higher quality in general practice (58, 117).

I would therefore like to change the perspective and look at the time between consultations rather than consultation time. The feeling of lack of time may be connected with the stress between the consultations. The GP needs some time between consultations to sit back and think about what has taken place in the consultation and in the interaction with the patient. When a consultation is finished, it should be possible to mentally process it before receiving the next patient in the consulting room. To document the consultation in the patient record may constitute the necessary mental break.
that might be to the benefit of the patient who just left. This mental pause would also help to trigger off a process of catharsis, making the doctor better prepared to attend to the next patient.

A few minutes’ break between consultations is, however, not enough to heighten the doctor’s awareness of ‘the doctor factor’. To do this, the GP needs external assistance in more structured forms. To compare oneself with other doctors is essential, and different methods may be applied, such as discussions of cases, inquiries, video recordings and registrations of various kinds. Regular meetings in small professional groups, such as research circles, Balint groups, etc., should be the framework of the activities, focussing on the doctors’ own work with their patients, making it possible to compare one’s own work with that of other doctors. An important element in the work of such professional groups is the GP’s feelings of frustration and helplessness (119).

In a recent article, Hart discusses the importance of ‘innovative consultation time’, implying by that concept the additional consultation time needed to bring about more participation by the patient (12). A more patient-oriented approach may, in the short perspective, and regarding to certain patients, need more time, because complicated underlying problems may come out and be correctly attended to. In the long term perspective, though, time will be saved for the health care organisation as a whole, and for the patients. The quality of the care is very much a matter of the GP’s understanding and management of the patient’s problems.

In analogy with Hart’s concept, coined in Britain, I would like to suggest ‘innovative patient time’ as an equivalent concept in the Swedish context. This term implies the time needed between patients by the doctor for reflection and consideration, in order to develop the patient-doctor relation; it is intended to contribute to better consultations by successively enhancing the knowledge of ‘the doctor factor’ which will be of benefit to the patient.
Conclusions

This work has shown the following:

* The length of a consultation with a GP was on average 20 mins with considerable variations. Factors of particular importance for this variation were
  - 'the doctor factor': doctors differ with regard to working pace,
  - 'the problem factor': the more psychological a problem is, the longer the consultation
  - 'the age factor': the older the patient, the longer the consultation.

* Immediately after the consultation, the patients were satisfied with the length of the consultation and their possibilities to tell the doctor about their problem. There was no connection between the patient’s satisfaction and the real length of the consultation.

* The doctors were less satisfied than the patients, particularly with longer consultations and when the patient’s problems had both physical and psychological dimensions.

* Male patients often had more straightforward physical problems while female patients relatively often had problems with both physical and psychological dimensions.

* Short consultations often concerned younger patients and patients with physical problems, whereas long consultations often concerned older patients and patients with mixed problems.

* Consultations which by an operational definition were called "good" consultations, were not connected with consultation length. It was rather 'the doctor factor' that was decisive for a "good" consultation.

* The quality of consultation was important for the time-consumption in a long-term perspective; good quality was rather associated with 'identification of relevant problems' and 'patient-orientation' in the consultation, certain features of the 'good doctor', and 'well-functioning health centres'.

* Frequent attenders formed a heterogeneous group in which small boys, middle-aged women and elderly people of both sexes were overrepresented.

* Frequent attenders had more problems and more mixed problems than comparable patients; problems regarding the musculoskeletal organs and psycho-social problems were common, not seldom in combination.

* ‘The doctor factor’, a comprehensive term comprising personality characteristics and qualities in a doctor, had an impact on the variations of consultation length, content and quality in the long and short perspective. It is suggested that ‘the doctor factor’ should be further investigated by the GPs themselves in small study groups where self-reflection and exchange of professional experiences can take place among fellow doctors. It is further suggested that time used for such work should be termed ‘innovative patient time’.

**Epilogue**

Time is an elusive concept, and it has occupied the minds of many thinkers in all times. St Augustine said: "If you do not ask me what time is, then I know what it is, but if you ask me what time is, then I do not know." When carrying out this work, I have touched on works of literature concerning the time concept which have made me look more closely at my own attitude to time. Below are some reflections and comments.

**Time is just a word**

"Time is just a word", writes Lundmark (120) demonstrating how often we confuse time with the measurement of time. He claims that the education and indoctrination we have been subjected to for generations have been so effective that measurable time has come to be perceived as ‘absolute time’, i.e. the time that exists and thus can influence us.

At closer inspection, we realise that ‘time’ may have many meanings. "Have you got time to come and see us?" we ask our friends when we want them to come to our house. "I haven’t got time" we say to our children
when they want to play and we are too tired to join in. "There is no times left" the nurse says when the appointment book is full. "His time has run out" we may say about someone who has just departed this life. "What was your time?" we may ask the long-distance runner. We talk about a past era as "in grandfather's time" and we say "the time is ripe" when we feel that something is about to happen. These expressions exemplify the many meanings of a word like "time", and its meanings are obviously context-bound. There is thus hardly an absolute definition of the word 'time'.

**Time is money and power**

When talking about time, we usually mean running time, clock-time, the time we can measure, the time signified by chronos, κρόνος in Greek. This time concept is often felt to be linear, a line without beginning or end, where the parts of time, the seconds, minutes and hours succeed each other in a never-ending parade. We cannot influence linear time. The minutes go by at the same pace whether we are asleep or awake, working, living or dying. Linear time is independent of man, and it is seemingly endless.

Linear time is characterized by being completely void. It consists of abstract symbols and relations between quantities. Yet, in spite of its lack of content, linear time is neither harmless nor meaningless. On the contrary, it is of crucial importance in our culture, for good or for bad (121).

One aspect of linear time is that it is replaceable. "Time is money" said Benjamin Franklin, and this is highly characteristic of modern society. As a salaried employee, I trade part of my life, eight hours a day, 40 hours a week year after year, for money. When humans began to sell their work for money, new meanings of the time concept began to emerge. A human's life was divided into working time and time off, and by the modern concept of flexible time, the limit between working time and time off could be pushed backwards or forwards within certain time frames. A recent agreement settled on the Swedish labour market in 1995 established that working time should be reduced by 14 mins per week. Time is money, and minutes become more and more economically important.
Time is also an instrument of power and control. When the industrial society was developing, time-and-motion studies were often used to increase production. The workers were seen as mere appendices to the mechanical equipment; when rationalisations took place, humans were often replaced by machines. In industrial contexts, notions like productivity and efficiency have a clear time dimension. The size of the profit and the production volume are all-important measures to evaluate the enterprise.

Let us look for a moment at the way linear time impacts us. As previously mentioned, linear time is completely void, it is outside of us and it cannot be controlled by us. The German philosopher Martin Heidegger claimed that the linear time concept transforms humans to things among other things (122). Lundmark shows how we have internalised clock-time by its dominance and influence for centuries (120). He protests against the tyranny of clock-time and encourages the reader to adopt a more independent attitude to the hegemony of clock time. Since time is just a word, and since there is no such thing as absolute time, then we should be free to use different time concepts in accordance with our needs and purposes. Time should be a tool instead of a master. Others protest against the dominance of clock time from other starting points; feministic researchers see clock time as predominantly an expression of (male) power, and thus call it male time (123).

One effect of the emptiness of linear time, its extension into eternity and its interchangeability, may be the expectation that one’s time should be filled with contents determined by somebody else. Time’s flight, symbolised by the jerky hands on the clock face, demands activity and materialisation. One must show that something has happened. Changes indicate activity. "The wheels must go round", and man is told to produce more and consume more as if production and consumption had intrinsic values. We try to win the struggle for time by materialising it (124). Man’s struggle against the clock also has medical implications (125).

**The unity of time and existence**

In this work about time and the consultation, different time perspectives have been applied. Clock time has been a basic aspect, which is natural
considering the importance of clock time in our culture. However, one cannot talk about time without talking about what is going on in the course of time. Whatever happens, happens in the course of time. Time is always time for something. The content of the consultation is inseparable from the course of time.

Ideas about the unity between existence and time have been expressed foremost by Heidegger (122). The inseparable unity between time and existence implies that time is finite, in the same way as our existence is finite, an idea which per se suggests the awareness of the inevitability of death. Only humans can ‘exist’, whereas pieces of rock are only ‘present-at-hand’. He says, among other things, that humans who perceive time as linear where one moment succeeds the other, i.e. are ‘present-at-hand’ in a regular order, misinterpret time in the same way as they misinterpret their own life as solely ‘present-at-hand’; man is ‘present-at-hand’ in the world, like other things. Against such a (vulgar) time concept, Heidegger claims that time is closely bound up with existence.

This view of time and existence corresponds with the view of man and human life. According to Heidegger, the interesting question is not what a human being is, but who the human being is. The human being is characterized by its openness for interaction with life. Life is a journey to one’s self and one’s own potentialities (126). Life is thus forward-oriented towards realising some possibilities but concurrently turning down others. Man’s determination ("Entschlossenheit") to face his destiny implies accepting the consequences of decisions made. This does not necessarily mean that the decisions belong to the past in the sense that they can be safely left behind in the maze of oblivion. Rather, they are part of the foundation of the present. They may be reconsidered, and their future relevance may thus constantly change. In this way, the limits of the present are wiped out. The present is stretched out, backwards and forwards, and encompasses events in the past as well as hopes for the future.

The meeting and the miracle of simultaneity

Linear time makes concrete and practical concurrence possible. Timetables for public transportation, appointments for various kinds of meetings
exemplify this. We agree on the date and hour when something is going to take place, and in this way, we create possibilities for social order. To be ‘on time’ is to turn up in accordance with a timetable, and we can usually trust the accuracy of the timetables when planning our everyday life. However, let us leave the part of concurrence played by linear time and look at what happens instead of when it happens. Such a change of perspective gives way to a different view of the concept of ‘simultaneity’. Kierkegaard describes ‘simultaneity’ as a place between time as an uninterrupted flow and the moment which is eternity’s arresting of the time flow. We sometimes say about a crucial moment that "time stood still". These are moments when we suddenly feel a deeper understanding of the nature and meaning of life.

In his book "Samtidighetens mirakel" (The miracle of simultaneity), Benkt-Erik Benktsson discusses some prerequisites for such processes when a moment becomes something else than just the passing second (127). The book is a study of the time issue in the works of the Swedish author Lars Gyllensten; a topic discussed is the metaphysical question concerning our existence: "Why is our existence what it is and why is it not organised in a different and better way?" There is no answer to that question other than what we ourselves can give by way of our own experiences and reflections. The mystery of life can never be fully comprehended. The miracle, says Gyllensten, is life itself, in, with and during what happens on earth. When we become aware of the unknown sides of life, we will also be able to make new experiences if we open our minds to reality.

Gyllensten maintains, according to Benktsson, that we must keep ‘an inner room’ untouched, a place to experience the miracle of concurrence, a place where we stand up for ‘the radical amazement’, the possibility to meet the unknown and marvel at the sight. In such an atmosphere there are chances to see other things than what is measurable and comparable. The preconditions for such an atmosphere are that ‘the inner room’ is kept free from ‘dogmatic fanatism’ as well as ‘disinterested relativism’. Both dogmatism and disinterestedness may obscure the sight. But if we succeed in keeping the atmosphere clear in our ‘inner room’, and also in keeping our minds open to reality, what Gyllensten calls ‘the empirical corrective’, then it may be possible to experience ‘the miracle of simultaneity’, i.e. moments
when we reach a deeper understanding of the true nature of our existence, what Gyllensten calls ‘the metaphysical corrective’.

This associates with another Greek work for time, kairos, καιρός, meaning ‘the decisive moment’, ‘the time for a decision’ ‘the right moment’, not in the sense of the right time according to the timetable but rather meaning that ‘time is ripe’. There is, says Gyllensten, a close link between the words kairos, miracle, mystery, sacrament and epiphany. These words denote the elusive, significant and profoundly human phenomena pertaining to our existential questions. Such existential questions are, in Gyllensten’s words (128), questions

"about the meaning of life, how we can endure pain and death, our responsibility for each other and for ourselves, about the limits of our power, and about our dependence on powers beyond what is solely human, about guilt and innocence, weariness and despair and the impulse to reject oneself and life, and about dedication and trust, about oppression and violation in this world, and about its greatness and glory."

These existential questions are universal, but they are definitely also clinically relevant. This was obvious to Balint, whose ideas were similar (61). He drew attention to the occurrence of the ‘flash’, i.e. the sudden deep insight of how things really are that can sometimes simultaneously become apparent to doctor and patient. Balint pointed out how important it was that the doctor should leave his ‘apostolic function’ and instead turn to the patient, i.e. tune in with the patient in the meeting. The ‘apostolic function’ may consist of prejudices about the patient, his/her diagnosis, or how problems should be managed, how patients should behave, and may prevent the GP from helping the patient. If, on the other hand, the GP succeeds in keeping his/her ‘inner room’ untouched for the meeting with the patient, there are possibilities both for correct diagnosis and treatment as well as for processes which further the patient’s mental growth and maturity. The ‘flash’, the sudden insight, is a result of such processes, which impact the patient’s health in a positive way. Common insight, mutual understanding between doctor and patient is essential. The ‘flash’ can be seen as a gift to the patient and the doctor. Balint noted, as a matter of fact, that the ‘flash’ was not the result of big efforts but rather of an open mind in the meeting between doctor and patient.
**Final comments**

To exist is to live. We exist "in our time", which means that we exist now rather than anxiously trying to "be on time" and adjust to the timetable. When we say that somebody’s time has run out, we mean to say that somebody has ceased to exist. Sometimes we ask each other "How are you?", and the answer may reveal that we are, but only just. The everyday greeting formula does however express that our awareness of life itself and our existence is in our minds. Happiness and sorrow, pain and joy, dark thoughts and light thoughts may fill our minds and become ingredients in this feeling for life. The experience of life is thus associated with the experience of being part of a process which has its roots in the past and its hopes in the future, and the limits of the present are no longer visible.

What, then, do I do with chronos, the clock? I cannot ignore it because I live and work in a culture where clock time is important. I am thus in a way a prisoner of the clock, and time and its meaning is an insoluble problem. However, this insight gives me a chance to take an attitude to clock time. Counting seconds and minutes is one way of measuring the void and elusive time, and clock time does not in itself create an obstacle or a possibility when meeting the patient. The length of a consultation does not say anything about the depth, quality or effects of a human contact. What makes the difference for the patient is what takes place within the given time span, in the meeting with another human being, whether that meeting is short or long, measured in minutes and seconds.

The importance of that change of perspective, from time to content, is the principal point of this work.
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Tacksam om Du kan fylla i dessa 5 frågor och sedan lägga svaret i brevlådan i korridoren.

1 Är Du: Man □ Kvinna □
   Ålder: 0-14 □ 15-44 □ 45-64 □ 65 eller mer □

2 Hur många gånger tidigare har Du träffat den doktor Du mötte i dag?
   Aldrig tidigare □ 1-5 gånger □ 6-10 gånger □ Mer än 10 gånger □

För de tre följande frågorna, kan Du med ett kryss på linjen markera vilket alternativ Du tycker är lämpligast.

3 När Du träffade doktorn i dag hade Du en känsla av att besöket var:
   Alldeles för kort □ Påtagligt □ Något för kort □ Ganska för kort □ Precis lagom □ För långt □

4 Kände Du att Du kunde tala med doktorn om alla Dina problem?
   Inte alls □ Lite grann □ Ungefär hälften □ Tämligen väl □ Fick säga allt jag ville □

5 Hur värderar Du själv Dina problem som Du hade i dag – är de psykologiska, fysiska eller en blandning av de två:
   Helt och hållet psykologiska □ Mest psykologiska □ Hälften psykologiska □ Mest fysiska □ Helt och hållet fysiska □
ATT IFYLLAS AV LÄKAREN

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4 Tyckte du att patienten kunde tala om alla sina problem:

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5 Hur värderar du själv de problem som patienten hade – är de psykologiska, fysiska eller en blandning av de två:

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