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De kwaliteit van verwijzingen

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SUMMARY

The aim of this thesis is to explore the factors explaining the quality of the process and the outcome of referrals from the general practitioner (GP) to a medical specialist. For that purpose several aspects of the referral have been investigated; the GP, the specialist and the patient have been involved in the study and the study took place at the doctor-patient level.

The first chapter deals with the interest of the government, the professionals, and the patients in the quality of care in the Netherlands in recent years. In spite of this growing interest in the quality of care, research in this field is only in its infancy.

In chapter 2 an exploratory model is presented which was used to investigate the quality of the process and the outcome of referrals. The efficiency of the interventions of the doctors, and the quality of the communication between the doctors are considered to be relevant aspects for the process of the referral. The quality of the outcome has been measured in terms of the changes in health status, anxiety, and diagnostic knowledge, satisfaction of the patients with the behaviour of the doctors, and the number of patients who are shopping around during or after the referral.

The model assumes a relationship between the different aspects of the process, between the different aspects of the outcome and between the process and the outcome. The factors which are supposed to explain the quality of the process and the outcome of referrals are also part of the model.

Chapter 3 describes the research design and the measuring-instruments. The data were collected at three points in time during the referral process, e.g., M1: when the patient was referred, M2: when the patient was discharged from specialist care or three months after the first datacollection, and M3: three months after the second datacollection. Mail surveys were used to collect data from the GP's and specialists. Patients were interviewed; referral letters and replies from the specialists were also collected. The referrals investigated were new, non-acute referrals to neurology, dermatology, gastro-enterology, cardiology, lung diseases and internal medicine. The eight hospitals which participated in the study were located in the northern part of the Netherlands. The GP's were selected by drawing a random sample of the GP's practicing in the service area of these hospitals. Between October 1989 and February 1990 the GP's asked all patients whose referral satisfied the inclusion criteria, to participate in the study. The specialists to whom the patients were referred were also asked by the authors to participate in the study.

The efficiency of the interventions of the GP's and the specialists and the communication between the GP's and the specialists have been assessed by independent physicians, the authors and the GP's and specialists involved. The change in functional status, sickness feeling, anxiety and diagnostic knowledge (i.e. the diagnosis and the diagnostic certainty) have been measured by the authors by comparing the scores at the three or two points of time during the referral process (objective change). Furthermore, the patients, the GP's and the specialists involved were asked at M2 to assess the change in complaints and anxiety retrospectively. Most of the measuring-instruments used, were developed by the authors. The

psychometric qualities of the new instruments were examined, and showed to be reasonably. The scales used show the expected factor structure. The internal consistency varies from moderate to good. The inter-judges agreement varies from slight to reasonable.

Three hundred and nine referrals have been analysed. Chapter 4 shows the high response rate of the three populations (77 % of the GP's, 96 % of the specialists and 93 % of the patients responded). In the study significantly more female GP's and more experienced GP's have been involved, compared with the population of GP's in the Netherlands. The GPs' group can be regarded as representative for the research area in the northern part of the Netherlands: relative many dispensing GP's and many working in a solo-practice in an urban area. Compared with the situation in the Netherlands, there are more small hospitals in the research area. This is also a characteristic of the northern part of the Netherlands. In the specialist group young doctors prevail. The morbidity, one of the most important characteristics of the referrals, is in agreement with the results of other referral studies.

Furthermore, this chapter pays attention to the results of measuring task perception of the physicians (the role of the GP in relation to the role of the medical specialist in medical practice) and the patients' expectations of the behaviour of the doctors. The task perception of GP's differs significantly from that of specialists. Patients more frequently find that GP's have to meet the wishes of the patients and that GP's should not take too much risk, compared to GP's.

In chapters 5 to 9 the aspects of the quality of referrals and the factors influencing the quality of referrals are presented. In chapter 10 the relation between the different aspects of the quality of the referral is discussed.

In most referrals the physical complaints of the patients are not severe, they are relatively easy to diagnose and easy to treat, and a treatment is necessary. In one out of five referrals psychosocial problems play a role. Before being referred, most patients have had complaints for six months and one third of the patients consulted another health care worker for their complaints before; mostly another specialist. One third of the patients has comorbidity, usually a chronic disease.

At the time the patients are referred, most patients do not feel sick. However, they feel slightly limited in performing their daily activities. The majority of the patients hardly worries about their complaints; just a few are very worried. Almost three quarters of the patients do not know for sure what is wrong; this proportion is somewhat smaller for the GP's. In most referrals the GP allows the specialist a free hand in choosing diagnostic and therapeutic procedures.

The GPs' expectations of the outcome of care (change in health status, anxiety and diagnostic knowledge) are higher than of his patients.

According to the judgement of independent physicians, the interventions of the specialists are more efficient than the interventions of the GP's. The mean efficiency-scores of the GP's and the specialists are 6.8 and 8.2, respectively.

In less than half of the referrals the GP's used diagnostic tests and in three quarters they treated the patient, mostly with medication. The independent physicians

frequently found that the patient was referred too early; the GP could have performed more diagnostic tests, and in a quarter of the cases there is doubt about the necessity of the referral.

In the eyes of the patients, almost all referrals are necessary. In half of the cases the GP or the specialist involved has doubts about the necessity of the referral. Quite often they felt that the GP should have done more before referring the patient

In most referrals the specialist used diagnostic tests and treated the patient, usually with medication. In one quarter of the referrals the specialist repeated diagnostic tests that were already performed by the GP.

In half of the referrals the independent physicians criticize the diagnostic procedures of the specialist. There is little criticism on the treatment of the specialist. In most cases the independent physicians felt that the specialist should have done more, especially by prescribing medication. In about one tenth of the referrals the specialist should have discharged the patient earlier; in some cases the specialist discharged the patient too soon, according to the independent physicians.

The GP and the specialist involved do not have much criticism on the specialists' interventions; the GP more often has doubts about the necessity of continuation of hospital care than the specialist and patient involved. The patients often hold the view that the specialists have discharged them too early out of hospital care.

In a majority of the cases, the diagnostic and therapeutic interventions of the specialist are in agreement with the intention of the GP, because in most cases the GP allows the specialist a free hand. When the GP prefers a restricted consultation, disagreement occurs in about two third of the cases on the diagnostic field, in half of the cases on the therapeutic field, and in one third concerning the duration of the specialist care. Disagreement means that the specialist did more than intended by the GP.

In about three quarter of the cases the GP and the specialist involved are of the opinion that the specialist did what the GP wanted him to do.

The efficiency of the interventions of the GP and the specialist is almost completely determined by the circumstances of the referral, such as the nature and the severity of the complaints of the patient, and the specialism. The efficiency is affected a little by the taskperception of the GP and the specialist; if the GP or the specialist allows the GP more influence on specialist care, he acts more efficient.

The quality of the referral letters varies strongly; one third of the referral letters is judged to be insufficient by the independent physicians. Most negatively judged is the care taken in writing the letters (many are badly written and therefore difficult to read); most letters are handwritten. On the other hand, personal notes about the patients, complaints of the patients, and the problem definition are described well.

In the referral letters information was lacking about the history of the case, the physical examination, the diagnostic tests, and the therapeutic interventions. The reason for referral is often not well defined, especially when it relates to treatment. Psychosocial factors and medication are often missing in the referral letter.

The overall judgement of the specialists is that the referral letters provide sufficient information. However, in two third of the cases they had criticism on certain items. Both independent physicians and the specialists involved found the information in the

referral letters insufficient concerning psychosocial factors. Contrary to the independent physicians, the specialists involved did not criticize the clarity of the reason for referral in the referral letter very often.

According to the specialist, the following items of the referral letter are important: personal notes of the patient, complaints, physical examination, problem definition, therapeutic interventions, history, and legibility.

The specialists' letters lack information about prognosis, psychosocial factors, information given to the patient, and an advise to the GP, when compared with an objective standard (explicit criteria). Particularly, when the patient is still under supervision of the specialist, an advise to the GP is lacking. Diagnosis, advised medication, and appointments for continuing specialist care are well-recorded in most cases.

The mean time between the consultation of the patient and the specialists' letter to the GP is 18 days.

In most cases the GP involved judged the contents of the specialist letters as being sufficient, not too long and received in time. However, they feel that the letters are lacking information about prognosis and the information provided to the patient.

The quality of the referral letter depends more on the characteristics of the GP than on the circumstances of the referral. In contrast, the content of the specialist letter depends more on the circumstances of the referral. GP's with little experience, with a broad taskperception, and GP's who are working according to the standard of the Dutch College of General Practice write better referral letters. In general, the referral letters to dermatologists prove to be better than letters to internal medicine and neurology.

Dermatologists write their letters quicker than neurologists and specialists of internal medicine, however, the contents of the letters from dermatologists is less complete compared to the contents of the letters from neurology and internal medicine; the letters are especially lacking information about prognosis, medical advice to the GP, and information on the continuation of specialist care. Specialists in small hospitals write their letters quicker compared to specialists in larger hospitals. The letters from specialists working at university hospitals are more complete than letters from specialists working at other hospitals. The more problematic the complaints of the patients (i.e. complaints that are more difficult to diagnose or to treat and complaints that are strongly influenced by psychosocial problems), the worse the quality of the referral letters of the GP; the more problematic the complaints of the patients, the better the contents of the specialists' letters.

Almost each referral led to a positive change in health status, in anxiety or in diagnostic knowledge; only five referrals did not lead to any improvement. The diagnostic knowledge of the GP improves most frequently. Four referrals have only led to a decrease in anxiety of the patient.

The functional status, sickness feeling, and the state of anxiety of the patient improves significantly in the first three months; after three months there is no significant change (measured by the authors objectively). Most patients perceive a decrease in complaints and anxiety in the first three months; after three months half

of the patients perceive a decrease in complaints and a quarter of the patients perceive a decrease in anxiety (assessed by the patients retrospectively).

In one quarter to one third of the cases the GP and specialist involved state they do not know whether or not the complaints and anxiety have changed. When the GP and the specialist have an opinion about the change in the complaints and the anxiety, this opinion is in little agreement with the perception of the patient.

In more than a quarter of the referrals the diagnostic knowledge (i.e. the diagnosis and diagnostic certainty) of the GP does not change during the referral process. A slight improvement in diagnostic knowledge is indicated in more than a third of the referrals. In the remaining cases there is a strong improvement. This improvement often means an increase in diagnostic certainty. The diagnosis of the GP remains unchanged in four out of ten referrals, in a quarter of the referrals the diagnosis is replaced by another diagnosis, and in the remaining referrals the diagnosis of the GP is specified or excluded or the complaints are diagnosed by the specialist where the GP was not able to diagnose the complaints.

In general, the patients are moderately satisfied with the behaviour of the doctors. The mean score of the GPs' behaviour and the specialists' behaviour is 6.5 and 6.9 (range 0-10), respectively. The patients are dissatisfied with the information provided by the GP about what is wrong with them and about what will happen in hospital. Almost a quarter of the patients has not been involved in the decision to be referred and almost one fifth indicated that they should have been referred sooner.

The patients are positive about the attention the specialist paid to their complaints and less positive about the patients' influence in medical treatment, and the communication skills of the specialist. About one tenth of the patients who are discharged from specialist care, do not agree with this discharge. These patients perceive less decrease in complaints and anxiety compared to the patients who agree with the decision to discharge them from specialist care.

Eleven percent of the referred patients are defined as 'shoppers': patients who, during or after the referral process, consult another medical specialist for a second opinion or consult alternative medicine without the advice of the GP or treating specialist.

The change in functional status, anxiety and diagnostic knowledge is mainly determined by the functional status, anxiety and diagnostic certainty at the moment of referral (starting situation). The more unfavourable the starting situation, the more improvement can be seen. Other factors influencing the change in functional status, anxiety, and diagnostic knowledge, are the severity and nature of the complaints, specialism, comorbidity and expectations of the patients. Referrals to the neurologists have led to less success in terms of a decrease in complaints and anxiety compared to referrals to the dermatologists and the specialists for internal diseases. In general, there is less improvement in health status (functional status and complaints) when the complaints are more severe and problematic. Improvement of the functional status cannot be attributed clearly to the referral, because of interaction with comorbidity. An improvement in comorbidity is related to an improvement of the functional status of the patient. The functional status of patients without comorbidity also improves

more than that of patients with comorbidity. In contrast to the expectations of the GP, the expectations of the patient are related to the change in complaints. Finally, patients who are still in the care of the specialist three months after being referred, experience less decrease in anxiety than patients who are discharged from specialist care.

Satisfaction with the behaviour of the physicians depends on the expectations or the perception of the patients about the behaviour. Older patients, privately insured patients, and patients who are primarily referred for reassurance, are more satisfied with the behaviour of the GP than younger patients, patients who are insured by a sickfund, and those who are not referred for reassurance. Patients are more satisfied with the behaviour of the specialist when they are highly educated, less worried about the complaints, and less uncertain about the diagnosis.

Among the 'shoppers' there are significantly more women than men. Compared to the 'non-shoppers', the 'shoppers' feel more strongly that their health is determined by physicians and not by themselves. Furthermore, shopping around depends on the health status and diagnostic certainty of the patient.

Chapter 5 to 9 showed that the quality of the process and the quality of the outcome are directly influenced by the explanatory factors. In chapter 10 the relation between the different aspects of the quality of the referral is analysed. The results hardly show a relation between the quality of the communication between the GP and the specialist and the efficiency of the physicians nor between the process and the outcome of care. The results do show a positive relation between the aspects of the outcome of the referral: the change in health status, anxiety and diagnostic knowledge. Furthermore, patients who criticize the GP, criticize the specialist.

Finally, the research design used has given the possibility to gain an insight into the complexity of the referral process. Most of the relations assumed in the exploratory model were confirmed. However, the main conclusion is the absence of a relation between the process and the outcome of the referral.