

The Doctor-Patient Relationship: Does it Really Matter?

1/28/96

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Abstract

A large body of literature uses the "doctor-patient relationship" (DPR) as if it were a discrete phenomenon with positive effects on patient satisfaction and clinical outcomes. This paper examines the three assumptions made by this literature: 1) that the DPR is a discrete dichotomous variable, rather than a poorly inter-correlated cluster of attributes; 2) that this cluster of attributes are the most significant predictors of the variables they are purported to effect; and 3) that the beneficial influence of a primary care relationship requires a physician rather than a paraprofessional.

First the components of the DPR addressed in the literature are specified: total physician-patient contact, the comprehensiveness of relationship, patient participation diagnosis and treatment, affectivity of communication, and the intensity of interaction. Since these components are not necessarily co-linear, it is suggested that DPRs are not a discrete, unidimensional variable.

Next, the paper discusses the particular task involved in medical care, and whether these are best carried out by one worker with a medical degree; history-taking; information synthesis; education and counseling; diagnostic and treatment procedures; case-management; and diagnostic and treatment decision-making. The complexity of medical practice, cost-containing managerial efforts at rationalization, and mobilization of non-physician health workers threaten to disaggregate these tasks and assign them to non-physicians.

Next, the paper examines some of the outcomes attributed to the DPR, such as physician and patient satisfaction, compliance with treatment regime, clinical outcomes, and lowered costs. It is argued that the DPR itself appears to make only a minor contribution to determining any of these outcomes.

Finally, the paper asserts that the organized power of the medical profession has supported a black-box approach to the DPR in order to defend physician autonomy against organizational and technological control. A reinterpretation of the DPR literature may suggest that organizational and technological innovations could reduce the role of the physician, and achieve or surpass all the desired outcomes of medicine.

The Doctor-Patient Relationship:

Does it Really Matter?

Introduction

There is no more sacred cow to the culture of medicine than “the doctor-patient relationship” (DPR). Since at least the 1930s, the privacy and autonomy of the DPR has been wielded by organized medicine as its principal defense against third party payment, quality assurance, and now, managed care. In recognition of this centrality, medical and social science journals have published thousands of studies of the DPR, and many histories of medicine are histories of the DPR. Most studies found that doctors and patients have "good DPRs" when they talk at length and ask each other a lot of questions, in an atmosphere of friendliness and trust. Studies also attempt to show that "good DPRs" lead to more satisfied patients and physicians, better patient compliance with treatment regime, and better clinical outcomes (Roter, Hall and Katz, 1988; Hall, Roter and Katz, 1988; Roter, 1989). Many histories and commentaries, especially from the ranks of medicine, argue that the traditionally strong DPR is now being eroded by technological and organizational encroachments.

But what exactly is a doctor-patient relationship? What do we think it accomplishes, and is there any evidence to that effect? This essay will attempt to deconstruct this romantic, mystified black box into a number of discrete tasks and components, with many confounding situational correlates, and with several discrete outcomes. First I propose some quantitative measures that could be used for measuring relationships in general, and the DPR in particular. Second, I discuss some of the tasks involved in medical work. Finally, I turn to a discussion of whether organizational and technological trends such as routinization, automation and paraprofessional substitution threaten the DPR. If “doctoring” is actually several, decomposable tasks, each of which could be done by technicians, nurses and computers, then doctors-qua-doctors, and DPRs, may not be necessary at all.

Measuring the DPR

I propose that the DPR can be broken down into the following discrete, measurable components:

1. Amount of Contact
2. Comprehensiveness of the Relationship
3. Patient Participation
4. Trust and Affection
5. Intensity

1. Amount of Contact

The most easily quantified variable in the DPR is the total amount of contact between patient and physician. Total contact is the product of three sub-variables: length of relationship, frequency of visits, and length of visits. Numerous studies have shown that the continuity of the doctor-patient relationship improves patient satisfaction (Linn, 1975; Weiss and Ramsey, 1989; Linn, et al., 1985; Marquis, Allyson and Ware, 1983; Dietrich and Marton, 1982; Hjortdahl and Laerum, 1992), as are length of visit and frequency of visits. Frequency of visits is also related to age, severity and chronicity of illness (Kravitz, et al., 1992). Though the length of relationship and the frequency of visits are obviously crucial, most DPR studies have focused on length of visits as the critical variable, and it is length of visit which has been most directly effected by managed care, cost-containment practices. Beisecker (1990) found that longer visits led to both qualitative and quantitative improvements in the communication, such as the initiation of serious psycho-social discussion.

While "total contact" makes sense as a cumulative variable, medical practice sometimes creates different temporally spaced relationships between different providers. For instance, one may be referred to an oncologist for a number of frequent visits during a course of radiation and chemotherapy, and then return to the regular care of one's primary care physician.

Total Contact = (Length of Relationship * Frequency of Visits * Length of Visits)

2. Comprehensiveness of Relationship

Coordination is also clearly critical to patient satisfaction, so that patients feel they are being cared for by a team, with an accountable team captain, and not by a motley crew (Gerteis, et al, 1994). But it is even more vital to quality care, since different physicians' interventions may come into conflict.

One common villain in the DPR story is over-specialization. Many argue that specialists, even if they have as much total contact with patients as primary care physicians, take a less comprehensive approach to patients. Some writers further suggest that specialist training, or at least medical education cumulatively, discourages warmth, empathy and the psychosocial approach and communication skills more characteristic of primary care. Even if specialists were as empathic or comprehensive as primary care doctors, and they probably aren't, it is likely that patients don't *see* specialists as capable of the comprehensive, psychosocial approach characteristic of the "family physician."

Most writings on the effect of specialization have discussed how the decline of a comprehensive *dyadic* relationship has effected the quality of care. But from organizational and management research comes a second question: how well organized, and communicative, are all the providers that a patient deals with? Coordination and communication occur not only face-to-face, but also through the medical records system, and today through electronic mail. Therefore a good measure of comprehensiveness would include a measure of the network of communication, and the strength of the medical records system (Turnbull and Hodges, 1986). If all providers talk to one another, or at least use a common information system, recording their different interventions, then they may provide a more comprehensive analysis of the patients condition, and certainly a more efficient one.

No one teacher may have a comprehensive picture of a student's performance, seeing the student for an hour each day. But the benefit of twelve instructors to the student is a deeper understanding of twelve fields than any one teacher could manage. Nor is the student is burdened by the foibles of any one teacher, since each teacher's conduct and evaluations are being overseen by the others. Similarly in medicine, the advantages of medical specialization may be well worth the erosion of dyadic comprehensiveness if the physicians can all be coordinated and managed by a designated case-manager.

Comprehensiveness =

Dyadic Comprehensiveness +

(Patient's Perception of Physician's Comprehensiveness

- Physician's Degree of Specialization

- Number of Physicians Involved in Care)

Network Comprehensiveness

(Direct Communication among Patient's Providers +

Communication among Providers Mediated by Staff +

Strength of Medical Records System)

3. Information, Participation, and Locus of Control

The classical image of the DPR is of a dominant physician and a passive patient. This was the normative DPR model that Parsons (1957, 1958) outlined in the 1950's. Parsons began from the assumption that illness was a form of dysfunctional deviance that required reintegration with the social organism, lest the ill take advantage and free-load. The development of the legitimized "sick role" was the means of controlling this deviance, and making it a transitional state back to normal role performance.

This normative model has changed significantly since the 1950's, however. Medical consumerism among an increasingly well-educated population has challenged medical authority (Reeder, 1973; Haug and Lavin, 1979, 1983). Opinion polls indicate a declining faith in physicians, and American medicine in general (Blendon, 1989). The women's (Corea, 1984) and the holistic health movements (Guttmacher, 1979) have encouraged patients to challenge physician authority and judgment.

Many studies have looked at the patient participation in the medical encounter. One approach is to record and analyze who says what to whom in the encounter, in particular the percent of an encounter that is (1) physician education of the patient about lifestyle, diagnosis, or treatment, (2) physician elicitation of information from the patient, (3) patient disclosure of information, (4) patient elicitation of information from the physician, or (5) affective comments by either party. Another common measure is the Patient Locus of Control, an index of the amount of influence the patient felt they had in diagnosis and treatment. Amount and direction of communication of information effects patients' perception of their power in the encounter, and many studies use the concept of patient participation to cover both information exchanged, and patients' subjective sense of empowerment. The concern with patient participation is somewhat ironic; much of the physician-oriented literature identifies the increasing assertiveness of patients as a cause of the erosion of the DPR, while the consumer-oriented researchers see the democratized DPR as leading to improved outcomes (Haug and Lavin, 1981, 1983).

Participation =

% of Total Contact that is Information Exchange *

Patient's Perception of Participation in, and Influence over, Care

4. Affective Relations, Instrumentalism and Depersonalization

For Parsons physicians exemplified the shift to affect-neutral relationships in modern society, with physician and patient both protected by an emotional distance. He believed physicians were socialized to act in the interests of all patients, rather than their own, guided by an egalitarian universalism, rather than self-interest or particularism. It is somewhat ironic, then, that a central complaint of both providers, consumers and medical sociologists is that there has been a decline in trust and warmth in the doctor-patient encounter, and that medical education trains physicians in emotional distance (Hafferty, 1991).

As a relational variable, the affective tie involves measuring both parties attitudes towards the other, and their perception of the other's attitudes toward them. We might expect these four measures to be synonymous, but research finds they are not: patients like physicians who don't like them, but think they do, and so on.

We also might expect that a positive affective relationship would be better than a negative one. But Kaplan, Greenfield and Ware (1989) found that high levels of *negative* affective expression in the doctor-patient encounter led to better outcomes; harsh words in a consultation indicated either that the physician cared enough to give the patient a hard time about non-compliance (smoking, etc.), or that the patients were annoyingly aggressive in pursuit of participation. Kaplan's more recent work (1993) suggests that since younger patients and younger physicians both have higher expectations of patient participation, the direction of this relationship may soon change; i.e. both patients and physicians may be unhappy when patients aren't full participants.

To some extent the affective tie is merely a matter of random chemistry; some patients and physicians are simply unlikable, or are dissatisfied with everyone. Over time we can expect that patients and physicians will either come to like or despise one another; total contact should correlate with the standard deviation of affective tie. On the other hand, if there is a "free choice of physician," and in an era of managed care there often isn't, dissatisfied patients and physicians will terminate the worst DPRs, and search for others. Thus, in a situation of free choice of physician, total contact may positively correlate with the positive affectivity of the DPR.

Nonetheless, patient empowerment, of both the "voice" and "exit" variety (Hirschman, 1970), probably erodes the DPR. Physician-oriented writers point to the chilling effect of malpractice fears and patients' consumerist behavior on DPR affection and trust. Patient instrumentalism is the flip-side of patient empowerment; no longer is the patient a passive, dependent recipient of noblesse oblige, but an active, intelligent and self-interested consumer. Young, healthy or dissatisfied consumers are less likely to have a DPR, and so are more likely to engage in doctor- and health plan shopping (Andrews, 1989; Kasteler, 1976). The increase in shopping-around, in turn, erodes DPRs, and leaves physicians disgruntled.

Consumer-oriented writers, on the other hand, have focused on aspects of physician training that may discourage affective relations with patients, such as the use of depersonalizing medical language in encounters (Anspach, 1988). Physicians increasingly rely on technological diagnostic measures, rather than physical or verbal diagnosis, leading to less warmth, more pessimism about patients' survival, greater patient alienation and less accuracy in diagnosis and treatment (Anspach, 1987; Fitzgerald, 1990).

While physician self-interest in fee-for-service systems may better motivate physicians to satisfy patients than physician assignment, assigning physicians to patients may be more satisfying for patients since physician assignment generally increases continuity and accessibility of physicians and thereby, according to one study in Britain (Freeman and Richards, 1993), patient satisfaction. Mechanic (1979) suggests physician assignment may also motivate a higher clinical quality care:

When the retention of the patient is no longer an economic issue for the physician, there is no need to "humor the patient" nor bend to the patient's wishes

when they are contrary to the physician's best judgment...in the prepaid situation colleagues are a more important reference group, and while the physician may be more inflexible he may practice a higher standard of medical care. (Mechanic, 1979: 413)

In other words, it may not be to the patients advantage to go to a doctor who thinks the customer is always right.

Though some argue that fee-for-service physicians' self-interest leads to patient-satisfying behavior, others argue that the DPR relationship is being eroded by physician instrumentalism and financial self-interestedness. At least it is being eroded by patients' *perceptions* that physicians, individually or on the whole, are acting out of financial self-interest. A characteristic 1990 national survey found 67% of Americans believe "Doctors are too interested in making money," and the leading reason for the decline in trust was that physicians were seen to be "in it for the money" (Kolata, 1990). Advocates of a national health service argue that such a program would restore trust in physicians, and, as Mechanic points out, free physicians from potential conflict between fiscal and technical concerns. A less drastic solution was offered in a *New England Journal of Medicine* editorial, entitled "Restoring Trust between Doctor and Patient" (Johnson, 1990): physicians should agree to a maximum income of \$200,000 in return for greater guarantees of professional autonomy.

Patient load is another factor which is likely to reduce the affective tie in the relationship, at least on the physician's side. A DPR will probably be less satisfying to both physician and patient if it is one of a thousand that the physician must maintain, rather than one of a hundred. Research also shows that length of wait for an appointment, and at appointments, are themselves major sources of patient dissatisfaction and barriers to utilization (Dutton, 1978). Size of patient load explains some, but not all, of the variation in time spent with each patient.

Affective Tie =

Patient's Trust/Affection for Physician

* Physician's Empathy/Affection for Patient

Patient Load

where Trust = Perceived Physician Skills + Perceived Physician Empathy -
Perceived Physician Instrumentalism

5. Intensity: Pain, Lethality and the Use of Invasive Procedures

A common argument for the uniqueness of the doctor-patient relationship is that the physician bears the quasi-spiritual burden of intervening directly into the patient's psyche and body, causing and relieving pain, and managing death (Pellegrino, 1974, 1979, 1984, 1988; Cassell, 1976, 1985; Siegler, 1981, 1982, 1993). There is, of course, tremendous

variation within and between medical specialties in the extent to which physicians invade the patient's "person." An oncologist or heart surgeon deals more often with invasive procedures and death than does a dermatologist, pediatrician or nutritionist. Yet, dermatology DPRs vary from patients with rashes, to those with chronic pain and disfigurement of the face; pediatrics from routine checkups to serious illness; and nutritionists can threaten our core behaviors and identity.

These factors are tied together by the intensity with which the patients' *selfhood*, their *personhood*, is threatened in the encounter. In general, we might find that the intensity of the DPR compensates for the amount of time, comprehensiveness, participation, and affective bond; five minutes talking to an oncologist about one's numbered days, or undergoing a painful invasive procedure, is equal to years chatting with Marcus Welby MD at annual check-ups. Conversely, the time with our primary care physician Marcus Welby is quality time, while the time with the oncologist is very distracted. In either case these are two very different types of relationships, which likely have different effects.

Intensity/Threat to Self = (Pain + Disability + Lethality + Use of Invasive Procedures)

Strong versus Weak DPRs?

Some of these dimensions co-vary. Total contact in primary care relationships probably is related to positive affective tie, and positive patient participation. But in other respects these different dimensions may not hang together very well. Pediatricians' relationships to children are probably high on total contact, comprehensiveness, and affective tie, but low on participation and intensity. Oncologists on the other hand may be high on total contact and intensity, and vary widely on comprehensiveness, participation and affectivity. Clearly more research is warranted to empirically verify whether these dimensions co-vary, and if they *do*, whether they do so along one, two or many dimensions. In any case, it does not seem likely that we can talk about "good" or "bad" DPRs as a simple linear dimension.

Tasks of the DPR

Physicians do a number of tasks with patients, but most of these tasks can, and often are done by others. The six tasks below encompass most of physician work:

- History-Taking
- Information Synthesis
- Education and Counseling
- Diagnostic and Treatment Procedures
- Case-Management

- Diagnostic and Treatment Decision-making

Physicians have traditionally delegated many tasks, but to clearly subordinate workers (Abbott, 1988). Most physicians accept, even expect, that nurses have a role in patient history-taking, education and counseling, and in some simple procedures. But many medical tasks, such as the coordination of patients through testing and treatment, consultation with specialists, and hospital or home care admission and discharge, even some diagnostic and treatment decisions, are delegated to nurses and other workers.

Physicians delegated when they could extend their income-generating capacity by carrying a larger patient panel, such as in physician-owned ambulatory clinics, or when they no longer wished to perform these tasks, so long as the workers were clearly subordinate. Ferraro and Southerland (1989) found that physicians had the least resistance to expanding the use of “physician assistants” in poor urban areas. On the other hand, they also found that, despite the growing shortage of pediatricians and obstetricians, physicians were most resistant to expanding use of physician assistants in these areas. Obstetric and pediatric work is largely routine, usually not requiring the presence of a physician, and strong pressures from the women’s movement, midwives and pediatric nurse practitioners are pressing for independent, as opposed to subordinate, practice. In other words, physicians are willing to delegate work as long as the delegation is in their interest; when the delegation takes on the character of “loss of turf” they begin to resist, often in the name of the DPR.

The declining autonomy of physicians, changes in the status of women, and the calls by health economists for changes in practice regulation, have made physicians much more sensitive to protecting the traditional division of labor in medicine (Levitt, 1977). Nursing organizations and researchers are actively challenging the constrained practice autonomy of nursing, and urging expanded, independent roles (Safriet, 1992). Research on the quality of care shows that expanding nurses’ roles in these ways can benefit clinical outcomes, patient satisfaction and cost-effectiveness. In the largest review of nursing substitution, the Office of Technology Assessment (1986) reviewed twenty-four major studies comparing paraprofessionals’ quality of care to physicians’. OTA found that paraprofessional performance was equivalent to physicians’ performance in ten studies, superior to physicians in twelve studies, and inferior in only two studies. Numerous studies have subsequently confirmed that nurses, nurse specialists and nurse practitioners can equal or excel physicians at communication (Taylor, Pickens, and Geden, 1989), continuity of care and improved clinical outcomes (Kane, et al., 1989; Hall, et al., 1990; Stone, 1995).

While most patients enjoy interacting with a well-educated nurse as much or more than with a physician, it is probably also true that most patients prefer practice environments where they perceive “their doctor” to be ultimately in charge. The question on the table for research, with implications for the success of managed care and the future of the DPR, is how much, or how little, physicians actually have to do to satisfy patients that their care is being managed by an accountable physician.

Products of the DPR

The DPR and Patient Satisfaction

The most studied of all the outcomes in the health services literature on the doctor-patient relationship is patient satisfaction. The results are not surprising: patients are more satisfied with sensitive doctors (and nurses) who are easily accessible; who see the patient quickly when they make an appointment; who take time to listen; who treat the patient in a personalized way; who inform them fully about their case; and who include them in negotiating diagnosis and treatment.

Physician characteristics are associated with patient satisfaction. Women physicians tend to do better at some kinds of communication (Martin, 1988). Medical education is purported to discourage medical warmth, humanism and empathy (Anspach, 1988; Fraser, 1989); and patients appear to be more happy with some specialties than others (Martin, 1988). Physician characteristics effect patient satisfaction directly, depending on patient preferences. But they also effect the intermediate variables of empathy, sensitivity, communication, and participative engagement.

There are also a number of patient characteristics which predict satisfaction, such as gender, race, age, and education, but their effects are not as strong as the practice and physician characteristics, and some may also be linked to practice characteristics: less educated and older patients may be more satisfied with a dominant physician; the minority poor may evoke less sympathy and attention from the physician.

As Cleary (1988) points out in his meta-analysis of patient satisfaction literature, the ability to quickly see patients, spend time communicating with them at length in a personalized way, and engaging them in treatment decisions, is highly constrained by practice setting variables such as patient case load (Ridsdale, 1989), cost-containment, and payer. Mechanic (1983) found that HMO physicians spent less time in direct patient care, since HMOs gave physicians heavier patient loads than the fee-for-service (FFS) doctors had, and FFS doctors had fewer "off" hours than HMO doctors.

Freidson (1986) suggests that different payer structures associated with different social classes will effect the expression of patient dissatisfaction:

From members of the affluent middle class, physicians should expect the fewest overt difficulties, for the middle class are likely to have very generous and flexible health benefits that allow many options...(and be) less likely to find out-of-pocket costs burdensome in light of their total income.

From the poor and from blue- and white-collar workers physicians should also expect to meet few difficulties, particularly if the agency paying for the poor is passive and if the employed have no union that negotiates their benefits, educates them about their contractual rights, and intervenes on their behalf.

It is primarily the large and growing group of college-educated, middle-income professional and technical workers - sometimes called the new middle class - that has the greatest potential for creating difficulties for physicians

working under contract. They are well educated enough to consider themselves capable of understanding medical matters, well enough exposed to the media to consider themselves well informed about up-to-date diagnoses and treatments, and of high enough status to wish to be treated as equals.

Furthermore they are likely to have a fairly detailed understanding of their contractual rights and, being articulate as well as familiar with bureaucratic procedures, inclined to seek bureaucratic satisfaction from the insurer if they cannot get it from the physician. Their moderate income discourages them from the option of exiting and paying out of pocket. They have little choice but to stay and voice their complaints and desires within the system. (Freidson, 1986)

But if patients simply want quick access to a knowledgeable person who will discuss their problem in relatively egalitarian and unhurried way, must that person be a physician? Patients are generally more satisfied with nurses' communication than with physicians'. Bourhis (1989) hints at why patients might prefer nurses in his study of the use of "medical language": doctors used alienating medical language, while nurses used everyday language with patients. Many studies have shown that the quality of nursing care and attention predicts inpatient satisfaction better than the perceived quality of physician care and attention (Hughes, 1991). In a study of patient satisfaction and houseofficer rotation, Sparr et al. (1994) conclude "...patient satisfaction with medical care and with the hospital atmosphere remains constant, independent of termination of the doctor-patient relationship.."

Even the aspects of communication which predict satisfaction, such as participative information flow, are determined by larger social, political and economic variables (Waitzkin, 1976, 1986, 1989, 1990). Medical school and peer socialization effect physicians' willingness to allow patients to participate equally, as do their economic security and patient load, and their political culture.¹ Socialization, age, race, gender and income, and patients' sense of entitlement to medical care in turn effect patient demand for participation. From this cursory overview, it would seem that patient satisfaction is most importantly predicted by variables which are directly determined by the economics and organization of medical care, variables which affect the accessibility and training of the front-line health worker, and not by doctors or "the DPR."

The DPR and Physician Satisfaction

Some research has been done on what aspects of the DPR concern physicians most, as a part of overall research on physicians' satisfaction with their worklife. In general, research finds that the self-perceived quality of DPRs is a weak predictor of overall physician satisfaction, and often a proxy for other organizational, physician and patient variables. One early study which pointed in this direction was Freidson and Mann's (1971) analysis of 1962 and 1963 data collected from physicians in the nation's large group practices. They discovered that physician satisfaction was mostly strongly associated with having little controversy among one's fellow physicians over the division of income, and having a small clerical and large paramedical staffs. This physician-

¹This is the essence of much of Waitzkin's work: that the lack of patient participation in the DPR is the caused by, and functional for, general disempowerment (Waitzkin, 1976, 1986, 1989a, 1989b).

pleasing constellation positively correlated with the "egalitarianism" of the firm, and negatively related to its "bureaucratization."

Egalitarianism consisted of:

Physicians feel like they have a voice

Small number of physicians in group

Physicians not over-supervised

Most physicians partners, not employees

No formal chiefs of specialty departments

Bureaucratization consisted of:

A lot of formal offices

Salaried physicians

Written rules

Written statement of # of hours to work

The one strictly DPR variable that was included, whether physicians reported that patients were "over-demanding," was part of a constellation of organizational variables associated with consumer-sponsored health plans, and was not highly correlated with physician satisfaction.

In a study of hospital-based prepaid group practices Freidson (1975) found physicians particularly disturbed by patients who cited their contractual rights, treating physicians more as bureaucrats than professionals.

It is my contention that, as rationing varies from fee-for-service, to implicit, to explicit rationing, the types of influence shift from client control, to colleague control, to bureaucratic control. Similarly, the nuances in the physician's role shift from 'entrepreneur' to 'expert' to 'official'. (Mechanic, 1979: 413)

Returning to the measures proposed earlier, the higher the patient's participation, the less satisfied physicians seem to be. Most physicians will dispute this, but the forms of patient participation they find satisfying is the asking of easily answered questions, attentiveness to the physician's answers, and compliance with the treatment regime.

At least some kinds of DPR "intensity" also probably depresses and burns out physicians. Merrill (1987) used a "hassle index" to identify three sources of vexation in practice: problems with running a practice, medical conditions of patients, and social characteristics of patients. In general, type of practice predicted "hassle," but unlikable patients annoyed physicians as much in any practice. "Unlikability" of the medical disorder also best predicted the incidence of diagnostic errors.

A national survey in 1989 (Ku, 1990) of 500 physicians found they favored policies that increased responsibilities and costs on patients, and disfavored policies that decreased physician autonomy. Practice characteristics such as specialty, type of practice, membership in medical societies, or percent of time in patient care were not associated with attitudes to plans. Physicians formed a continuum, from "conservatives" who favored shifting costs and responsibilities to patients, to "liberals" who were more supportive of prepaid care, PPOs, and less intensive and more preventive care. But again, the organizational variables were ones that most strongly predicted physician satisfaction, as well as many aspects of the DPR. A 1988 study of German psychiatrists found the best predictors of physician satisfaction to be managers' encouragement of participation,

physician autonomy, supportive communication, and peer review activities (Schulz, 1989).

In short, strictly DPR variables do not seem to be strong predictors of physician satisfaction compared to organizational variables. In some cases, the measures proposed for the strength of the DPR, such as patient participation and intensity, are probably negatively associated with physician satisfaction.

Quality of Care, Compliance and Outcomes of the DPR

One clear assumption of much writing on the DPR is that the more communication a physician has with a patient, and the more affective that relationship is, the more informed and sensitized the physician will be, and the better the diagnostic and treatment decisions will be: good DPRs lead to better quality of care. Similarly, the longer the physician knows the patient, and talks to them in each encounter, the easier it should be to explain the treatment regime and convince the patient to comply. In turn, better quality of care and better patient compliance lead to better outcomes.

Kaplan, Greenfield and Ware (1989) have given us the most recent review of studies of doctor-patient interaction and their effects on clinical outcomes. They conclude that "good DPRs" strongly predict patient satisfaction and beneficial physiological outcomes, but not compliance. They then went on to perform four clinical trials in different settings and with different types of patients (N=250). Doctor-patient relations were measured by audio recordings of visits, with each utterance assigned one of thirty codes from three general categories - control, communication or affect.

This database was then used to derive subscales: patient effectiveness (numbers of factual statements by the physician/patient's controlling utterances), communication ratio (patient utterances/physician utterances), physician direction (quantity of questions, interruptions, etc.), patient direction (ditto), and affect/opinion exchange (combination of emotional and opinion statements). They were able to demonstrate that more patient control, more affect, and more physician-provided information are all correlated with better health as measured physiologically (blood pressure or blood sugar), behaviorally (functional status), and more subjectively (evaluations of overall health status). As noted above, however, expression of *negative* affect had a positive impact on patient satisfaction and outcomes.

Yet these studies leave unanswered whether these clinical outcomes be achieved by communication with some other worker or group of workers. For the cost of a twenty minute visit with a physician, a health care system could afford a twenty minute history taken by a nurse, a five minute diagnostic visit with a doctor, and a thirty minute debriefing and counseling with a nurse practitioner. One place where the efficacy of paraprofessionals has been taken seriously is in perinatal care. While most obstetricians advocate a dozen visits to an obstetrician, many studies show investments in community nursing and home visits to be far more cost-effective (Olds, 1986).

Cost of the DPR

"Good" DPRs cost something, and most cost-containment efforts restrict them one way or the other. But few studies have focused directly on the financial or cost impacts of different types of DPRs. If patients actually choose their health plan (and often their choices are very limited) then plans may find it worthwhile to invest in matching doctors and patients, allow longer physician visits, and to send physicians for communication training. Not only will patients be happier, but if they comply better with the treatment plan, and it even may reduce expensive hospital admissions. At least, this is the optimistic, pro-health maintenance argument.

But the strength of the DPR probably contributes insignificantly to variations in cost. The major determinants of health costs are the same political, economic and technological factors which also powerfully impact the DPR. The strength of the DPR is at best a weak intermediate variable predicting costs, if it predicts at all. Rather, since physician decisions are the spigot of costs, it is precisely physician autonomy, and the autonomy of the DPR, which must be constrained in order to constrain costs. American medicine may no longer be able to afford the traditional, autonomous DPR.

Medicine, From Craft to Mass Production

The Political Creation of the DPR

The American DPR is a political creation. Its future will be determined by a political struggle between the medical profession, and the corporate, political and technological forces which seek to rationalize this profession, and its autonomous relationship to its clients. Physicians have sought to make a "black-box" of the DPR, to portray it as a natural social form like marriage, or the teacher-student relationship. But the various things we expect from spouses, teachers and doctors don't have to be performed by one person, and there are often advantages when they aren't performed by one person. For instance, teaching has been specialized and differentiated so that teachers now see their students for only an hour a week for only one year. Counseling and other former functions of the "teacher-student relationship" are now delegated to specialized professionals. Yet we hear no call to return to the classical teacher-student relationship of Socrates and his pupils, because the cost and educative inadequacy of such a proposal is evident to everyone.

Health care is undoubtedly a functional prerequisite for the continuation of society, but the niche of organizational forms that it may take is very broad (Starr, 1982; Andersen and Mulner, 1989). The distinctive characteristics of the American doctor-patient relationship are the contingent result of our physicians especially successful "collective mobility project" (Parry, 1976), unconstrained by the strong labor movement and State that forced physicians to accept national health plans in the rest of the industrialized world. When the AMA codified their ten cardinal principles² in 1930 to be

²1. All medical services must be controlled by doctors

2. No third party between patient and doctor

3. Free choice of physician

protected against the threat of socialized medicine, the core of their project was the assertion and protection of professional authority and doctor-patient autonomy. Since then the AMA has used the sacredness of the DPR to defend physicians' interests against the expansion of a national health system and other third party payers.

Rationalizing the Medical Division of Labor

Changes in technologies and organizations provide most new professional tasks. Correlatively, the two are the central destroyers of professional work. (Abbott, 1988: 92)

Organizations are beginning to dominate the structure, process and outcome of medical care. Physicians are alarmed about the influence of organizations on their medical practices...Power is becoming concentrated in the hands of professional managers...(Burchell, et al, 1988: 827)

Marxist medical sociologists have proposed that physicians may be undergoing *proletarianization* (McKinlay and Arches, 1985; McKinlay and Stoeckle, 1988). If so, the DPR may go the way of the potter-pottery user relationship in the wake of industrial production. The deprofessionalization/proletarianization/corporatization thesis³ argues that profit-maximizing managers are deskilling medical work and subordinating physicians to firms, parallel to the replacement of artisanal labor by industrial production. As with all artisans, the medical guild insists that their "hand-crafted" product is of superior quality, worth the extra cost. Physicians and other health care critics say the decline of the dyadic doctor-patient relationship will lead to poorer coordination of care, less personal and attentive care, and the loss of the physician's fiduciary/agency role. Despite these Luddite struggles of the medical guild, competitive pressures for more efficient and productive organizations of specialized workers force organizational change.

The proletarianization thesis emerged in the 1970s, when the privileged position of American physicians appeared incapable of surviving the health care reform movements, and the drive for national health insurance. In the 1980s the proletarianization thesis gained in credibility, as automation, patients' rights, salaried physician employment, and vertical integration in the health care market proceeded apace. During the first two years of the Clinton administration, when the Health Care Task Force and announced efforts to

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4. Permanent and confidential family physician must be central to system
 5. All medical institutions are extensions of doctors' tools, and only doctors can judge their adequacy
 6. The patient must be responsible for the "immediate cost" out of pocket
 7. No cash benefits
 8. All doctors in an area must be included in a plan
 9. Medical relief must only be given to the poor
 10. Only the medical profession should be allowed to restrict treatment, or enforce regulations

³ Coburn, 1988; Ehrenreich and Ehrenreich, 1978; Himmelstein and Woolhandler, 1988; Feinglass and Salmon, 1990; Hafferty, 1988; Haug, 1973, 1975, 1976, 1977, 1988; McKinlay, 1982; McKinlay and Arches, 1985, 1986; McKinlay and Stoeckle, 1988; Navarro, 1988; Salmon, 1987; Stoeckle, 1985, 1987; White and Feinglass, 1990; Willis, 1988; Wolinsky, 1988.

push for managed care, nurse substitution and corporate consolidation, proletarianization appeared near a milestone.

Nonetheless, some medical sociologists have rejected the proletarianization thesis, arguing that physician incomes continue to inflate faster than other occupations, medical work remains under physician control, and the political power of physicians appears unscathed (Freidson, 1985; Haug, 1988; Mechanic, 1991). The role of organized physician lobbies in helping to thwart the Clinton health care reform effort certainly lent greater credence to the view that professional power remains strong.

In response, advocates of the proletarianization thesis have argued that physician work may be changed profoundly at the micro-level before those changes are reflected in macro-declines in power or prestige (Annandale, 1989), and that physicians do not appear to be powerful enough to stop the forces for corporatization and deprofessionalization. In fact, physician power and prestige may directly, dialectically, contribute to their eventual subordination to health care organizations. Successful physician efforts to ward off state intervention have directly contributed to the escalation of health care costs, and denied physicians state insulation from corporate forces which now seek to control escalating costs through controlling physician behavior (Berenson, 1994). If American physicians' efforts at using state policy to protect professional power are actually null, or even negative, on their position at the micro-level, the key question is whether they can be successful in their micro-level efforts to retain control over health care organizations.

It may seem ironic, but physicians may be able to better defend their prerogatives to an autonomous DPR within national health systems, than under the onslaught of corporate rationalization in a privatized health care system. This appears to be the case when health services researchers compare physician autonomy and freedom of choice of physician in our managed care systems, to the greater autonomy found in most other industrialized countries national health systems. If American physicians convinced the public that the defense of the autonomous DPR should be a public policy priority, no matter what the cost, legislation could require that all referrals be made through a gate-keeping primary care physician, who could be chosen by the patient from all physicians in the community. As noted above, however, this kind of reform might reduce continuity of care by encouraging doctor-shopping.

On the other hand, national policy could focus on facilitating the evolution from a DPR-centric health care system, to a system of integrated mass production, backed by computerized expert systems. Under this rationalized system the patient would have a more or less stable relationship with an integrated team of paraprofessionals: home care personnel, health educators, nurses, technicians, and occasional physicians and specialists. Making paraprofessionals the primary care gate-keepers would not only be cheaper, but free the physicians for longer visits, and shorter patient loads.

Computerization of the DPR

Physicians see technology as being very problematic and requiring the exercise of a great deal of individual judgment. Physicians build their professional careers by being able to exercise discretion in the use of technology.

Administrators, on the other hand, view technology as something to be routinized if possible, to be made predictable and controllable. Administrators build their professional careers by structuring and rationalizing the technological core of their organizations. (Shortell, 1979: 392)

The key to the defense of the DPR, and thus to the defense of physicians' autonomy more generally, is the claim to irreducible expertise. When any occupation has claims to a core body of expert knowledge, and defends that claim from competing occupations, it moves toward professionalization; when it doesn't, it is vulnerable to deskilling (Abbott, 1988). Even the claim to expert knowledge is partly determined by the organized power of the occupational group: the more power, the more intellectual terrain they can successfully defend. If professionals falter in defense of their terrain, then administrative and economic forces will press forward to sub-divide tasks, and create a more hierarchical and bureaucratized structure to manage them (Hall, 1968). Despite many changes in technology, economics and organization in health care, this claim has protected physician autonomy, and physicians' resulting social power and enabled them to defend their claim to irreducible knowledge. But the rise of specialized allied health professions, information technologies and expert systems may provide the physicians' challengers, from below and above, with a stronger hand.

A largely unspoken and unexamined argument in the DPR literature is that physicians understand patients better, and therefore provide better treatment, the longer and more continuous their total contact. But the development of medical record-keeping systems has made possible the collection and systematization of patient medical histories in ways impossible for any one physician to remember or integrate. These medical histories can be stored on small plastic cards, or in large networked databases, and carried with the patient to any encounter, removing one of the major benefits of a DPR. Of course, it may take quite a bit of reading to learn the relevant history from records, and much of the psychosocial insight will be missing.

Artificial intelligence systems, on the other hand, make possible the automation and commodification of the expertise upon which physicians' power is based (Abbott, 1989). Successful medical expert systems already exist for diagnosis and treatment of particular syndromes (Cooper, 1988; Miller, 1988a, 1988b, 1988c). The next fifteen years will see the development of a multi-specialty, general diagnostic system, with accuracy far beyond that possible by any physician. But Barley (1988) finds little evidence that artificial intelligence has yet had any effect on deskilling medicine.

Over the past decade a number of sociologists have argued that expert programs threaten to deskill medical work by codifying the physician's knowledge (Antley and Antley, 1973; Haug, 1973; McKinlay, 1982). These authors have portrayed the degradation of medical work as imminent. But while expert systems may eventually subsume portions of the physician's role, the fact remains that after ten years of development the few expert systems that perform credible diagnoses still remain prototypes used only in experimental settings (Shortliffe, 1976). Consequently, when deprofessionalization theorists search for examples of computer technology used more widely by physicians, they almost always mention automated history taking. But such programs make no decisions

and are rarely written using techniques of artificial intelligence. Instead, such programs automate the recording, storing, and retrieval of patient records. While automated history taking is surely an example of how computers are used in medicine, it is difficult to argue that the technology deskills physicians unless one also claims that recording a medical history involves the core of a physician's skill. That nurses and physician's assistants often take histories even in the absence of computers suggests that doctors see the tasks' priority differently. (Barley, 1988: 43)

Physicians' current, not quite explicit, approach to the advent of diagnostic systems has been to use them solely as an adjunct to their practice, and their professional autonomy has allowed them to defend against using in any other way. It is quite possible that this might remain the pattern, especially if physicians agitate the public that computerization represents a threat to the quality of care. Computerization as an adjunct to, rather than a substitution for, the DPR could provide the physician with more time for interaction with and education of the patient.

In fact, it is likely that the physicians will both lose and gain ground from expert systems:

All professions will lose particular portions of their jurisdiction to expert systems. As with rapid knowledge change generally, we can expect professions to isolate those parts of their knowledge vulnerable to expert systems and refound their jurisdictions on unthreatened areas...On the one hand, professional work is replaced by machine work. On the other, the machines enable new forms of professional work and new expectations for professional services. Essentially the race is between two forms of creativity. The growth of professions to this date shows which has won. (Abbott, 1988: 184)

Conclusion: Is the DPR a Useful Concept?

There is little evidence that the DPR hangs together as a coherent explanatory construct, or that its various dimensions independently explain much of the variance in physician and patient satisfaction, compliance, outcomes, or cost. The "doctor-patient relationship" was the product of the successful professional institutionalization of European and American physicians, and remains a useful legitimation concept for their unique social and occupational status. The norms of the doctor-patient relationship were also functional for the public, since patients are ignorant of their needs or of the quality of their care, and depend on doctors acting as their agents, and on physicians being socialized to norms of service.

But as the technical and institutional environment of medicine has changed, so have the underpinnings of the DPR. Its continued existence is now in question from both corporate and political rationalization, and the encoding of professional expertise into informational and expert systems. As dozens of allied health workers begin to assume the roles hitherto assigned to physicians, patients may be offered a new contract, one based

on the explicit accountability of a health care organization, rather than simple trust in the DPR. Rather than expecting professionals selected for, and trained in, scientific reasoning to act like comfortable human service professionals, we will allow nurses, social workers and physicians assistants a more central role in health care delivery. Rather than relying solely on the fallible knowledge and reasoning of individual physicians, we will turn to expert systems which offer the distilled knowledge of entire profession.

In the midst of our head-long dive into managed care, these outcomes appear likely. On the other hand, in 1993, national health reform seemed likely. We may well find that organized medicine has hidden reserves of political strength and public goodwill to muster to defend the DPR status quo. In any case the struggle that is shaping up will be quite interesting. In the best of all possible worlds, that fight over the future of the DPR will involve some research into the measures and questions I have posed above.

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