

On practices of ‘good doctoring’: reconsidering the relationship between provider roles and patient adherence

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Abstract Questions pertaining to patient adherence and provider roles are part of the classical repertoires in sociological and health services research. While extensive research programmes consider why patients do not follow medical advice, less is known about how practitioners assess patient adherence. Similarly, there has been much work on provider roles changing with the organisation of healthcare, but less attention to the ways providers conceptualise, choose and strategically enact practices in the course of their work. Using data from a year-long ethnographic study of two diabetes clinics, I examine some of the stances medical practitioners actively choose and enact in their treatment of diabetes patients – educators, detectives, negotiators, salesmen, cheerleaders and policemen – and how they tailor their actions to specific patients in order to maximise their adherence to treatment regimens. Findings suggest that the notions of ‘patient adherence’ and ‘physician roles’ are conceptually broader and more fluid than what is captured in existing literature, and this rigidity potentially impairs our ability to learn more about the everyday practices of medical work.

Keywords: compliance, adherence, doctor-patient relationships, clinical decision making, provider roles, medical authority

Introduction

Questions pertaining to patient adherence and provider roles are part of the classical repertoires in sociological and health services research. Patient adherence, or the execution of medical recommendations, is considered a linchpin because health services research assumes that adherence to treatment regimens is essential for achieving desired health outcomes. While existing

interdisciplinary literature provides a diverse range of accounts for why patients follow or do not follow medical recommendations, these approaches share the underlying assumption that adherence objectively measures the extent to which patients' behaviour coincides with medical advice. As a result, extensive research programmes on adherence offer competing explanations for a narrow range of questions related to patients' behaviour and why they do not follow medical advice. This focus systematically occludes entire domains of inquiry pertaining to the ways providers assess patient adherence, use those assessments to make medical decisions, and affect patient behaviour in ongoing ways.

At the same time, health-related research has had a longstanding interest in the medical professions, specifically the roles physicians and other practitioners play in medical care, and how those roles may have changed over time. Early on, Parsons (1951) described a traditional, paternalistic doctor-patient relationship wherein expert physicians acted in the interests of patients' health and in service of preserving a functionalist society. Starr (1982) subsequently predicted that this cultural authority would become obsolete as the sovereign profession of medicine gave way to corporatised healthcare. Underlying these classic lines of inquiry is an assumption that physicians' behaviours are responsive to changes in their cultural and organisational environments, and that they are forced to modify the nature of their work in order to accommodate shifting political, social and organisational terrain. By contrast, with some important exceptions that I consider below, there has been less emphasis on the ways providers themselves conceptualise their work, and the sorts of strategic and creative practices in which they engage as part of that process.

In this study, I use ethnographic and interview data from two diabetes clinics to illustrate some of the ways patient adherence and provider roles are connected, both as practical matters related to patient treatments and health outcomes, and as theoretical concepts central to the study of healthcare. These findings show that, as an integral strategy for doing their work, providers assume stances that, beyond simply exhibiting paternalism or partnership toward patients, allow providers to actively assess patients' ongoing adherence with treatment regimens, and try to maximise future adherence by recruiting patients to medically-prescribed rationales and priorities. In this sense, adherence assessments and treatment decisions are produced through concerted social action, and are neither straightforward reflections of 'true' patient behaviour nor algorithmic applications of medical science. Instead, providers work to design and recommend treatment regimens that are tailored to specific patients in ways that will allow them to maximise their health outcomes conditional on the various behavioural constraints they may face. Rather than being an entirely separate phenomenon, the corpus of practices providers do in service of their work is, by design, *intimately* connected to patient adherence. Furthermore, these stances retain characteristics of both the 'old' (e.g. Parsons 1951) and the 'new' (e.g. Starr

1982) physician roles described in existing literature: while the multifaceted nature of healthcare teams superficially appears to dismantle the paternalism of traditional physician roles, the actions undertaken by providers in this study ultimately strive to achieve similar goals – persuading patients to follow medical recommendations. Improved understanding of the links between patient adherence and provider roles will help illuminate some questions pertaining to the (un)changing nature of medical work.

Background

I use the term ‘adherence’ to refer to the extent to which patient behaviours coincide with medical recommendations (Haynes *et al.* 1979)¹. When social scientific research into nonadherence first proliferated in the 1970s, it focused on individual patient characteristics, accounting for nonadherence largely through individual personality characteristics, which were seen as producing deviant behaviour in patients: disliking side-effects of the drugs; having uncooperative personalities; being unable to understand physicians’ instructions; and having a lack of motivation (Conrad 1987: 15, Rosenstock 1974, Stimson 1974: 99, Svarstad 1986: 440). Subsequent sociological research pointed to the importance of social and circumstantial constraints as explanations for patients’ decisions not to follow instructions, such as difficulties in navigating the medical system (Becker *et al.* 1993, Hill 1995); socioeconomic limitations (Dutton 1986, Hill 1995, Link and Phelan 1995); constraints arising from relationships with family members (Davis 1991, Peyrot *et al.* 1987, Rajaram 1997); efforts to exert control in one’s life (Aljaseem *et al.* 2001, Conrad 1985); and ability to manage stress (Peyrot *et al.* 1999). Despite expanding to consider social circumstances in addition to various psychological dispositions as *causes* of nonadherence, this literature still conceives nonadherence as an individual-level phenomenon fundamentally based on factors embedded in patients’ lifeworlds (Mishler 1984) rather than on provider roles. By contrast, the present analysis illustrates how the ‘individual’ actions and reasoning behind (non)adherence are intimately connected to broader situational and interactional contexts enveloping an array of medically situated organisational and professional entities. Furthermore, these connections are constituted in ways that preserve the individualised character of nonadherence and downplay the role of the healthcare system and providers in producing that behaviour.

Ideals of shared decision-making and patient-centred medicine have drawn attention to the potential impact of provider roles on patient behaviours and perceptions, such as adherence and satisfaction (Gafni *et al.* 1998, Gwyn and Elwyn 1999). As described by Charles, Gafni and Whelan (1997, 1999), key characteristics of shared decision-making include:

. . . (1) *establishing a conducive atmosphere* so that the patient feels that her views about various treatment options are valued and needed . . .

(2) *eliciting patient preferences* so that treatment options discussed are compatible with the patient's lifestyle and values . . . (3) *transferring technical information to the patient* on treatment options, risks and their probable benefits . . . (4) *helping the patient conceptualize* the weighing process of risks versus benefits . . . (and 5) *sharing his treatment recommendation* with the patient, and/or *affirming the patient's treatment preference* (Charles *et al.* 1997: 687)(emphasis added).

Certainly, a patient-centred approach offers an important contribution to sociological research on provider roles, and it implies abstract mechanisms through which provider actions may be explicitly linked to patient adherence. At the same time, however, the conceptual model of patient-centred medicine focuses on ideal types, and offers little explanation of, or evidence for, how these processes might be enacted in lived practice. Stevenson *et al.* (2000) find, in fact, 'little evidence that doctors and patients both participate in the consultation (in the way suggested by Charles *et al.* 1997 and 1999)'. A goal of the present analysis, then, is to articulate some of the empirical, observed practices and strategies in play, as providers attempt to enroll patients in behavioural repertoires that are consistent with medical recommendations. Other researchers have examined similar issues in non-medical arenas, and the present analysis resonates with two existing lines of inquiry, both of which are concerned with the empirical, everyday practices of social actors, and how such practices constitute stable social realities.

The first line of inquiry, Actor Network Theory (ANT), takes as its unit of analysis the *process* of constructing nature/society dualisms. Rather than assuming that knowledge is produced either by society or by nature, ANT assumes a radical indeterminacy of actors, and that the stability of artefacts derives not from their pre-existing characteristics, but from their assimilation into networks which help shape and define them (Latour 1993). Callon and Law (1982) suggest, for example, that actors' 'interests' should not be viewed as pre-existing 'background causes of action', but rather as actors' attempts to define and enforce social order, and to enroll other actors as supporters of a given set of realities. They show how a group of scientists work to enroll and transform the interests of the editors at *Cancer Quarterly* so that they match with the scientists' own – namely, to publish their set of research findings. In a very similar way, the providers in my data work to recruit, or enroll, diabetes patients to be the sort of actors in their diabetes management that providers would like them to be – ones who voluntarily undertake medically-appropriate, or adherent, courses of action. From this perspective, rather than viewing patients' 'interests' in adherence as pre-existing, essential aspects of their individual character, we can see how those interests are actively interpreted, transformed and acted upon by providers in their efforts to induce patients to behave in medically-sanctioned ways. In this way, adherence is not simply a pre-determined characteristic of individual patients, but a product of the networks in which those patients function.

More specifically, Gomart (2002a, 2002b) shows how this enrolment process occurs in French and US clinics using methadone substitution treatment for heroin addiction. Gomart argues that, rather than forcing behavioral changes through constraints that *subjugate* clients, the clinics have worked through 'generous constraints' that *induce* behavioural changes that are commensurate with clinic goals. Gomart calls attention to the tension between freedom and constraint that is inherent in this addiction treatment strategy, showing how clinic personnel 'added and varied constraints in the hope of hitting upon just the one that might generously "pass" the user into action' (2002b: 523). In similar ways, providers in the diabetes clinics work to induce patients into behaving in ways that can be characterised as adherent. Far from the traditional conceptualisation of adherence as a characteristic of individual patients, these perspectives implicate profoundly social and strategic reasoning practices, interactions and relationships leading to the labelling of some behaviour as 'adherent'.

The second line of inquiry is ethnomethodology, which concerns itself with the activities whereby people 'produce and manage settings of organized everyday affairs' (Garfinkel 1967, Garfinkel and Rawls 2002). While less focused on the nature/society dualism studied in ANT, ethnomethodology shares ANT's orientation towards understanding the concerted social action that generates sustained and mutually understood social realities. Especially relevant to the present analysis is ethnomethodology's concept of *accounting*, which refers to the observable, reportable ways in which social actors make sense of, or explain, their actions. From an ethnomethodological perspective, these explanations – or accounts – of social activities are inherently inseparable from the activities themselves; accounting for social activity is part and parcel of doing that same activity.

A significant body of ethnomethodological (and, relatedly, conversation analytic) research has extended beyond the ideal types characterising shared decision-making models to describe in detail the interactional processes that occur in medical encounters, documenting how the sequential organisation of talk affects various aspects of healthcare (Frankel 1984, Gill 1998, Heath 1992, Maynard 2003, Perakyla 1998). The present analysis does not use conversation analysis, and focuses instead on some of the actual, practical cognitive reasoning that occurs in such medical settings. Other researchers have used similar ethnomethodological approaches to study non-medical topics. For example, in his work on 'telling the convict code', Wieder (1974) describes how residents and staff of a halfway house in Los Angeles analyse and organise residents' behaviour with reference to the 'convict code'. He suggests that it is not that residents' behaviour was *driven* or *prescribed* by rules contained within the code, but that the intelligibility of any specific act could be seen as *deriving* from the code. In Wieder's words, "telling the code" rendered residents' behavior rational for staff by placing the acts in question in the context of a loose collection of maxims which compelled their occurrence' (1974: 156). In a similar way, providers rely on patient

adherence as a rubric for rendering their own actions and medical decisions intelligible, rational and professionally competent. It is not that patient adherence is a pre-existing behaviour, but that adherence offers an organising rubric for providers' actions, such that their behaviour can be accounted for, or made sense of, in terms of patient adherence. 'Adherence' becomes a term used to account for provider behaviour, but one that rhetorically places emphasis on the patient. Building on these existing ANT and ethnomethodological literatures, I use providers' descriptions of their own work – as educators, detectives, negotiators, salesmen, cheerleaders and policemen – to explore how the notion of adherence is fundamentally tied to a distributed network of practices, professions, situations, people and artefacts (see also May *et al.* 2004).

Data and methods

The data for this study are from a year-long ethnographic study I conducted in 1997–8. The fieldwork sites were two weekly subspecialty endocrinology clinics at two hospitals that are both part of the same University-based medical centre located in a large, Midwestern city in the United States². The clinics, Park and County, were selected to provide an optimal contrast of the socioeconomic diversity of persons with diabetes³. Survey data collected from patients and displayed in Table 1 reveal that those at County clinic are less likely to be white, are more likely to be uninsured, and have lower incomes and education than patients at Park clinic.

The organisation of personnel also differs between the two clinics. Park relies heavily on two endocrinologists with regular patient caseloads; makes relatively light use of residents; and has a formal diabetes education centre

Table 1. *Comparison of patients between Park and County clinics*

	<i>Park Clinic</i>	<i>County Clinic</i>	<i>p-value for difference</i>
% Black/Hispanic	12	45	<.001
Mean Family Income	\$56,000	\$12,000	<.001
% Family Income \$15,000 or Less	12	75	<.001
% Without Health Insurance	3	42	<.001
% College Graduates	41	9	<.001
% Less than High School Education	11	36	<.001
Patients' Self-Assessments of Health (0–10 scale), 10 is most healthy	6.79	5.59	.0015
Physicians' Assessments of Diabetes Control (0–10 scale), 10 is best controlled	6.63	4.91	<.001
N	137	33	

with various full- and part-time staff. By contrast, County clinic has several attending physicians, but all but two of them are research physicians who spend only 10–15 per cent of their time in clinics; has two endocrinology fellows on two-year appointments; relies heavily on residents, and, instead of a formal diabetes education centre, makes use of a certified diabetes educator who attends the clinic each week. Together, these personnel differences create an environment in Park with significantly higher continuity of care as well as a much more extensive and specialised centre for diabetes education. Compared with County, patients at Park have access to a larger, more stable arrangement of practitioners to help them manage their diabetes. In the context of an illness where 'team management' is considered critical for achieving optimal health outcomes, this organisational environment facilitates fine-tuning of provider roles over time, a point I elaborate below.

This analysis is based primarily on two types of data, which pertain to observable activities, interaction and providers' cognitive interpretations of and accounts for those activities. First, I observed approximately 250 hours of activity at these clinics, including approximately 200 different consultations between diabetes patients and medical practitioners (more than 20 hours of these consultations were videotaped). Second, I conducted semi-structured qualitative interviews with 25 practitioners, including all the physicians in the University medical centre who treat diabetes, as well as nurses, dietitians, social workers and diabetes educators. Paid assistants transcribed these audio- and video-taped data, after which I conducted detailed coding analysis using qualitative data analysis software (Atlas.ti). Finally, as a matter that is secondary to the current analysis, I conducted brief telephone surveys with 170 diabetes patients, and these data provide the background information presented in Table 1.

The case of diabetes

Diabetes provides an excellent case for studying patient adherence and provider roles because patients are expected to independently manage complex daily treatment regimens involving medication, diet and exercise in order to avoid the acute and long-term difficulties that accompany high glucose, such as circulatory precursors to amputation, blindness, kidney failure, heart disease and stroke⁴. Emulating normal glucose levels necessitates: (1) matching injections of insulin with the size, content and timing of meals; (2) monitoring glucose levels by sticking one's finger with a lancet, placing a drop of blood into a small electronic meter and recording these figures in a log; and (3) monitoring exercise, stress levels and infections, each of which can cause fluctuations in glucose levels. Diabetes regimens become more complex with the addition of multiple insulin injections; mixing of long- and short-acting insulins; more extensive monitoring and assessing of food content; adjusting dosages of insulin according to algorithms; and increased glucose monitoring.

At their most sophisticated, diabetes regimens involve insulin pumps, which most closely mimic healthy pancreatic activity.

In Park and County clinics, patients usually began with fairly simple regimens and moved to more (or less) complex regimens, depending on practitioners' assessments of their success in managing glucose levels. As summarised by this physician and noted by several others, the diabetes management process proves quite challenging for most patients:

There are so many different aspects to the regimen that at any point in time there's multiple venues for failure . . . I suspect that the per cent of time that they put it all together, where they've done a stellar job with diet, exercise, (glucose) monitoring, achieving the glycemic parameter . . . (is) pretty low (Park clinic, attending physician 1-003).

To make diagnostic adjustments to patients' insulin dosages that will continue to lower glucose levels without putting them at risk for acute (and potentially life-threatening) episodes of *hypoglycaemia*, physicians must assess on each visit how closely patients are following their regimens. Given that the majority of patients are unable to regularly follow all aspects of their regimens, practitioners are *continually* and *unavoidably* confronted with the task of assessing adherence in order to provide basic medical treatment for diabetes patients. The complexity and accomplished nature of this process are reflected in the ways providers account for their work and the facility with which they assume inter-related strategies in their efforts to maximise patients' health outcomes.

Physician stances and adherence

Several practitioners alluded to their use of 'heuristic knowledge' or a 'Gestalt' in the process of assessing patient adherence, and insisted that making individualised assessments was an essential part of medicine:

Although it's pseudo-scientific, you just have to take all these things into account, and then come up with a treatment plan that sort of fits this person's overall picture. If a physician doesn't do that, or applies formulaic approaches to all patients, I think they will fail as a physician essentially . . . One could argue about the ethics of it, but that's what you do. It's part of the art form (Park clinic, endocrinologist 1-014).

Despite the multiplicity of goals that may coexist in a given clinic, such as managing time constraints, handling relationships with other providers and interpreting multiple types of medical data, the goal of accomplishing medical outcomes – for which assessing adherence is an integral step – is at the fore:

- I: Which issues are you most concerned about in treating diabetes patients?
- Dr: Obviously the medical issues. I have to be concerned about them. I have an ethical and legal obligation to deal with those medical issues, but beyond that, I think there are other issues that have to do with the patient's life that I also have to be involved in, too, in some way [because] medical issues are influenced by them. I can't tell a patient to take 20 pills a day every hour if he is working eight hours a day, so that blends into this whole thing. *But as a physician, my primary goal is to accomplish a medical outcome that's going to help the patient lead a better life, a longer and better life* (County clinic, attending physician 2-001).

A goal of this analysis is to unpackage some of this heuristic knowledge by identifying methods practitioners use to do their work, and the everyday practices by which they account for those activities. By exploring these aspects of medical care, we can better understand the integral role providers play in health outcomes, not just as neutral purveyors of scientific expertise, but as social actors necessarily and purposely engaging in and spearheading various social processes with patients. In the following sections, I analyse various strategic stances providers assume in their interactions with patients as part of their efforts to enrol patients in their medical agenda, increase adherence and thereby attempt to optimise medical outcomes. These stances are organised around some common social roles – educators, detectives, negotiators, salesmen, cheerleaders and policemen – but reflect a complex, dynamic and changing array of practices that are enacted in various ways across the clinical settings.

Educators

Most practitioners in Park and County focused heavily on their work as educators and the centrality of patient education in successful diabetes management. Insofar as education is treated as a key to motivating people to follow their regimens – the implicit reasoning being that if someone understands the medical implications of uncontrolled diabetes, it is irrational for that person not to act in his or her own best interest by following medical advice – providers undertake several different types of education.

Practical skills: At a basic level, effective diabetes management depends on a series of relatively complex concrete tasks, and so a first-order educational problem is imparting such skills to patients. One diabetes educator underscored the importance of this process, and how diabetes care presents some unique challenges as compared with other chronic illnesses. For diabetes management to be successful in the eyes of providers, getting patients to be the 'participants they need to be' refers to a specific configuration of medically defined categories of action:

One of the biggest challenges is to bring the patient up, from an educational perspective, to the level where they need to be, where they can be the participants that they need to be. Diabetes may be unique in its requirement of modification of lifestyle variables, diet, and exercise, as well as being able to take fairly complex medications (Park clinic, attending physician 1-003).

One Park physician elaborated some of the specific skills they teach patients, and alluded to the importance of diabetes educators in this educational process:

[Patients] have to be able to demonstrate appropriate injection technique, self-monitoring [of glucose levels], and they have to be able to regurgitate the appropriate management of hypoglycemia. It's quite an educational process that we do through the diabetes educators; there's often pre-tests and post-testing . . . in which they actually try to formally quantify levels of understanding (Park clinic, attending physician 1-003).

At first glance, it might appear that the acquisition of these concrete skills constitutes the bulk of education that diabetes patients need to succeed, and that these educational goals can be efficiently accomplished primarily through diabetes educators and secondarily through physicians. In many ways, however, patients' long-term success in executing these concrete aspects of their diabetes care depends on additional, abstract dimensions of their education. Furthermore, these educational goals are not neatly divided among different types of providers, but are accomplished through complex interplay among them, such that they provide an ongoing *range* of educational resources tailored to their individualized assessments of patients' needs.

Cognitive skills: In addition to the concrete skills described above, practitioners commonly noted that patients needed particular cognitive skills for successful diabetes management, a perspective one physician explains here:

The patient is not born with the understanding of how to adjust medication or what to look for, and most of them don't have the reasoning skills [to do it], [but] not because they're not intelligent enough. They have the intelligence, but reasoning skills are sometimes tough (County clinic, attending physician 2-001).

Many providers worked to develop such reasoning skills in their patients based on their belief that education about the physical tasks of injection and glucose testing are relatively impotent in the absence of knowledge about the abstract reasoning driving it; to the extent that patients have only rote knowledge about how and when to use insulin, they are poorly equipped to make sense of and respond to new problems as they emerge. As one Park

physician explained, the more patients understand about the processes underlying diabetes, the more 'it takes [negative effects of diabetes] out of the realm of being spooky'. In this fieldnote, for example, an attending physician in Park capitalises on an educational opportunity within the context of a typical clinic visit to expand the patient's understanding of why he should check his feet:

After Dr. K checks the patient's feet, he asks if the patient is checking his own feet regularly. The patient responds with a chuckle that he looks when he takes his socks off or puts them on. Dr. K says that he should be [thoroughly] checking them, which prompts the patient to ask why exactly it's so important [to do that], and what they are looking for. Dr. K explains in some detail (perhaps 3–4 minutes) the relationships among nerve damage, vascular damage, and the immunological environment with high glucose that makes it hard for things to heal, and how even blisters or small sores can become big problems if left unattended.

These types of cognitive skills are important not only for understanding and resolving short-term problems, such as a single episode of hypoglycaemia, but also for understanding and avoiding long-term problems, such as risks of complications. It is this long-term reasoning, based on medically-defined best practices for managing diabetes, that enables patients to extend their comprehension of daily management, and to consistently, habitually execute those skills over the course of many years. As with the authors submitting research to *Cancer Quarterly*,

The outcome (it is hoped) is that many interests are identified, attracted and transformed in such a way that other actors value and utilize the research reported in the paper: they become provisionally 'enrolled' in the scheme of the authors, and fall into line (Callon and Law 1982: 619).

This nurse practitioner describes her efforts to 'enrol' one of her patients by transforming his presumed interest in sex such that he falls in line with her 'scheme' for managing diabetes:

Teaching is one way that people can be encouraged to participate more in their care . . . Case in point: if you have a 'noncompliant' male in their twenties who's had diabetes for 10 years and you want to get his attention, you can start revealing complications of diabetes [such as impotence] and when they occur [10–15 years after onset]. Most 30-year-old men still like sex (Park clinic, nurse practitioner 1-002).

In short, patients are necessarily confronted over time with a range of diabetes-related problems, and they will usually not have a diabetes expert with them to prescribe the best course of action for a particular event. While

concrete skills (i.e. insulin injection, glucose testing) are useful for managing a subset of predictable problems, and short-term cognitive skills will further enhance problem-solving skills, long-term cognitive skills expand even further the potential situations patients can effectively manage over the lifetime of their illness. In this sense, the providers are working continuously to enrol and re-enrol patients into a specific set of practices, habits and knowledge sets that not only keep their diabetes stable, but also their identities as adherent patients who are amenable to providers' recommendations.

Psychological and emotional skills: Providers in both clinics also implicate a range of psychological and emotional skills in successful outcomes (see also Charmaz 1991 for discussions of chronic illness management). At first glance, the principle of self-management as a philosophy for diabetes care may seem abundantly obvious, but in a world where many people are accustomed to acute illnesses that do not require sustained decision-making in everyday life, this approach to medical care and to patient-practitioner relationships can be quite a departure from traditional arrangements. As one example, the unrelenting and stochastic nature of diabetes means that it is practically impossible for any patient, no matter how dedicated, to avoid periodic high or low glucose levels that may be beyond his or her control (as a result of, for example, illness or stress levels). By extension, even the most disciplined patients experience ebbs and flows in glucose control as a result of distractions and challenges inherent in lifestyle issues. As part of emotional education, then, practitioners work to educate patients about realistic expectations, and the inevitable disappointment and frustrations that arise with impossibly high expectations, as this diabetes educator explains:

We really stress that no one's perfect . . . So one of the things that concerns me is when people sit down and they say, 'Well, I haven't followed my diet perfectly'. We don't care if you followed your diet perfectly. You can have sugar, you can have desserts. You can have lots of these things. Are you doing it a good portion of the time? Then you're successful. So at times, patients paint this picture that, 'Oh, I have to do this and this and this, kind of by the book, or perfect, otherwise I'm not doing okay' (Park clinic, certified diabetes educator 1-006).

In the absence of realistic expectations, patients may respond to setbacks in their diabetes management with any of several emotional or psychological mindsets, and such responses have the potential to hamper future diabetes care more than the setback itself. For example, patients sometimes become depressed, fatalistic or confused when they do not have outcomes consistent with their efforts, and these orientations may interfere with decision-making or motivation for renewing their efforts to control glucose levels.

In the following excerpt, transcribed from a videotaped interaction, a Park patient (Kathy) discusses problems she is having managing her diabetes,

how that process is exacerbated by multiple stressors in her life (including marital conflict, depression and difficulty maintaining an earlier weight loss), and how the combination of problems is overwhelming her. Even though she has struggled with diabetes for several years and is intellectually cognisant that stress affects her glucose, Kathy has trouble effectively translating that knowledge to improve her emotional state, and the physician responds by providing some emotional education. He does this first by referring her to the social worker in the diabetes education centre, and a few minutes later, by encouraging her to keep her problems in perspective and try to start working through her various problems:

Pt: [crying] I just seem to think that I can deal with everything all by myself, and I'm not doing a very good job. I want to go to the [weight loss] maintenance sessions, I want to continue that programme, but I mean it's twice a month, and I've been two or three times, but it's just I had conflicts that I couldn't avoid.

Dr: M hm.

Pt: And it's been a problem for me because it made me anxious. I'm very anxious right now. It doesn't take much to set me off.

Dr: Kathy-

Pt: Then it's hard on my blood sugars. I know it is. It's stress, and it's self-inflicted.

Dr: Kathy, I think one thing I'd like to do today is have you talk with our social worker a little bit today if she's available, okay? And then maybe she can help facilitate getting you in to [your psychologist's] office, okay?

(continued, 7 minutes later)

Dr: You've got tremendous potential. Okay? I've got a very strong feeling that you're going to work through this just fine. I really do, that's a very honest assessment. But the thing to do right now is not to whip yourself and say, 'Okay, be a grown up and just deal with it' [like you said a few minutes ago]. You need to do what you know you need to do. You need to start working through some of this stuff and you'll come out the other end. You'll get out of this hole. Okay?

Emotional education is an ongoing, iterative process, helping patients subscribe to a medical perspective wherein, as described above, 'no one's perfect' and that it is most important to follow a regimen 'most of the time'.

As with this patient, this kind of education is often needed even when patients have the cognitive skills to understand the unique impact of chronic illness or have previously experienced difficult emotional times.

As a final point, it is important to note that, perhaps more than any of the other stances discussed in this study, providers' educational work dovetails with or even encompasses other stances they assume with patients. For example, the nurse practitioner who mentions impotence as a complication in a previous example above describes how she sometimes combines her stance as (cognitive) educator with that of cheerleader; in Kathy's case, cheerleading is implicit in the physician's attempt to provide her with emotional education. Similarly, providers' stances as cheerleaders also tend to overlap or underlie other kinds of recruitment of patients to a medical perspective on adherence, and this is a point I return to below. First, however, I show in the next section how educator stances are also often enacted in ways that coincide with providers' stances as detectives and negotiators.

Detectives and negotiators

Ultimately, effective patient education implicates knowledge of patients' abilities and willingness to follow regimens. Practitioners commonly noted that an essential part of their work centred on identifying patients' constraints, tailoring patient education to those specific profiles and designing treatments *in co-operation with* patients that were sensitive to their needs. One practitioner identifies the essential task as follows:

One [role practitioners play in treatment adherence] is to find out how compliant [patients] can be to the diet and exercise, and try to find ways to help them be compliant [in] ways that do not become intrusive upon their lives (County clinic, clinical research physician 2-008).

In order to 'find out' such information, patient-practitioner communication is critical. Below, one nurse practitioner illustrates the synergism between detective and negotiator practices by recounting a recent conversation she had had with a patient:

I said, 'Can you help me here?' I said, 'I can't adjust insulin unless I know what I'm doing, so you need to get me some blood sugars in the morning, okay? Now, is that possible?' [The patient responded,] 'No, because I don't have any money'. Okay, then you start the negotiating process. Okay, I'll give away some of the supper [glucose measurements], back and forth, so it's kind of like a detective, okay. To figure out why they didn't comply and can you fix it, okay. Now, I can't fix 'no money' (Park clinic, nurse practitioner 1-001).

In this case, the financial constraint of 'no money' affects adherence because the patient cannot afford all the test strips that would be required to test her

glucose as often as the nurse practitioner would prefer, which is her primary medium for determining the patient's insulin needs. Because she cannot 'fix' this constraint, the practitioner responds by changing the regimen with the objective of maximising glucose control, *given* the patient's situation. This work of trying to 'figure out' and 'fix' potential obstacles to adherence is reflected in Gomart's (2002b: 537) observations about clinicians' efforts to 'induce movement' in patients:

Béatrice [the clinician] is searching for *the* constraint, the compromise that Lara [the client] will accept and which will make her participate in this project. Instead of imposing one constraint, she adjusts, switches, and replaces one element of the project with another. With her minimal project and her multiple questions, Béatrice searches for just those constraints that might make Lara accept the project of a medical check-up. If she succeeds, the staff will have more opportunities to intervene with her (original emphasis).

These efforts to induce movement by customising regimens to individual patients echoes my earlier discussion of the mutuality of paternalism and partnership in patient-provider relationship, showing how 'old' goals of compelling patient adherence are sometimes approached via 'new' mechanisms such as accommodating patient desires. Here, efforts to persuade patients to follow medical recommendation are accounted for in terms of the removal of obstacles.

While financial constraints to adherence are common, practitioners often struggle to assess more abstract barriers to adherence, which may not only be more subtle to identify, but also often more socially awkward to address. One physician used the example of depression, placing the onus on practitioners to acquire information from patients:

If you don't feel comfortable enough to ask about things that might be challenging for you, then you're not going to find, or listen, when they tell you, 'I am depressed, Doc. You're not going to get my blood sugar under control with insulin, it's going to take Prozac'. They won't say that, but in the end [it's that] sort of thing. 'It's cause I don't get any exercise and I don't feel like eating. And if I don't feel like eating. . . .' Communication is a two-way thing: physician to patient [is] pretty good, patient to physician [is] not so good. That's not the patient's fault. That's the physician's fault (County clinic, clinical research physician 2-006).

Similarly, practitioners can act as detectives regarding patients' physical or cognitive abilities and make appropriate adjustments, including simplifying regimens or increasing their complexity. As one example, a patient reported that on a day when he knew he was not feeling well, he not only failed to check his blood sugar or eat anything, but decided instead to get in his car and drive home. He ended up making a wrong turn and then flipping his

van. Afterward, he checked his glucose and it was 31 mg/dl. The low end of a normal glucose range is 80 mg/dl, and practitioners are legally prohibited from allowing patients to leave clinics with glucose levels below 60. In relating this story to the physician, the patient made clear his poor judgement and poor understanding of the gravity of his condition, which was interpreted by his physician as indicative of low cognitive ability and as necessitating a regimen focused on avoiding hypoglycaemia, with less attention to postponing long-term consequences.

While the examples of financial constraints, depression and poor cognitive ability pose fairly transparent obstacles to diabetes management, several practitioners relayed stories of patients whose nonadherence remained unchanged despite providers' best detective work. When the reasons for a patient's nonadherence remain unyielding to providers' recruitment and transformation efforts, it becomes more difficult for a provider to negotiate appropriate regimens, as one physician describes:

I had a Ph.D. biochemist one time who would not take more than two injections a day . . . I really like this guy a lot, and so it really came down to me spending a few nights lying in bed thinking that if I sent Bill packing [to another practitioner] he's gonna go in and have the same crummy relationship that he's always had with healthcare providers because he sees them as obstructions to what he really wants to do. He was a guy that wanted to stay in the lab all the time. Diabetes was a nuisance . . . So if I spend 10 seconds with this guy and send him on his way, he's either gonna do it all on his own or pick some guy that will allow him to do [a simpler regimen]. And so I decided to modify it. And it was tough . . . I'm not trying to tell you that I have incredible success. But I do think over time I got him to a level that he wouldn't have gotten to otherwise (Park clinic, attending physician 1-003).

Across interviews, there were several similar anecdotes, invariably involving patients with high educational levels or prestigious occupations who were unwilling to manage regimens as complicated as they could potentially handle. This disposition toward diabetes care often posed challenges for practitioners in that they viewed such choices as irrational; by eschewing more complex regimens, these patients were seen as not acting in their own best interests. Scenarios in which patients of high socioeconomic status were unwilling to follow regimens were even more frustrating for practitioners because they assumed that such patients were free of the economic constraints most commonly – and, from their perspective, most legitimately – impinging on adherence. In the above case, a seasoned attending physician was able to negotiate a regimen despite disagreeing with the logic behind the patient's actions, but this was not always the outcome.

For some practitioners, particularly neophyte residents who did not carry a regular caseload of diabetes patients, the inaccessibility of patients' logic

sometimes resulted in a 'dead end' to the detective work and a freezing of treatment negotiations. For example, in the fieldnote excerpt below, the resident, Joe, is seeing a patient, Julie, for the first time, and is trying to encourage her to exercise more frequently. Rather than negotiating a regimen that will accommodate the constraints Julie describes, Joe repeatedly suggests that she take up swimming – a newly-discovered hobby of his – as a form of activity that would help lower her glucose:

When the resident asked the patient if she exercises, she didn't hesitate at all before saying, 'no', and left it at that. Joe was trying to encourage her to do more activity as a way of bringing down her blood sugars and helping her health overall, so when he started to suggest that she needed to be active, Julie said that she had had back surgery, and that her back gets sore when she exercises. Joe asked if she had ever tried swimming, noting that it would provide more support for her back. She said no, and that she doesn't have access to a pool unless she goes to therapy through the local hospital. Joe pursued the topic, suggesting that if she went only twice a week that she would be sore at the beginning, but after a few weeks it would improve, and then she could work up to three, four or five times a week. The speed with which he moved from her unapologetic claim that she doesn't exercise at all to having her swim five days a week was almost comical. The whole time, she kept staring at him, nodding silently and playing with her ring. Mostly she looked blank, and I thought it was extremely clear that she had no intention of changing her exercise plan, let alone swim five days a week.

While many providers worked to negotiate treatments that would fit patients' lifestyles, those with less facility at negotiating provider roles, such as Joe in the above case, were less flexible in identifying and responding to such constraints. When nonadherent behaviour cannot be clearly attributed to social, economic or cognitive constraints on patients, practitioners sometimes attribute those behaviours to insurmountable psychological or personality flaws, such as lack of motivation or unwillingness. Such attributions can sometimes be compounded in a vicious cycle wherein patients such as Julie, who have not received realistically achievable medical advice, may be seen in the future as nonadherent by providers who read her chart and determine that she has been recalcitrant in not following the advice Joe gave and presumably documented in her file. In the absence of the social practices that align patient and providers, diabetes care can take a very different direction.

Salesmen

On some level, the fact that patients seek assistance from the medical system implies that they subscribe to a medical model in which adherence improves health. Because the repercussions of untreated diabetes are so severe, however, this assumption is tempered by the fact that most diabetes patients

realistically have little choice as to whether or not they seek medical services. Beyond educating patients, then, providers are faced with the charge of 'selling' patients the usefulness of the medical model for avoiding long-term complications. In this sense, diabetes management is often compared to an insurance policy against future complications, and practitioners often spoke of the importance of persuading patients to 'buy into' the importance of glucose control:

It's very easy for people who don't have pain, don't have a blemish, don't have something obvious to forget, deny, ignore, whatever it is. And so you have to keep reminding them of the importance of glucose control and why they're doing it and why it's so important. Because I think people can lose sight of the mission (Park clinic, endocrinologist 1-014).

Although 'the mission' here refers specifically to the prioritisation of *medical* goals in diabetes care – as opposed to patients' goals, which may be different – these goals are presented in highly rational, objective ways, such that the underlying medical assumptions are obscured. Another practitioner frames it in terms of salesmanship:

A lot of what we do is try to convince patients that we know what we're doing, and that the therapy we prescribe is likely to be helpful. They've got to be sure that what you advise is the right thing for them. They've got to be willing to try it out . . . Not only are we coaches, but we're salesmen. We sell our knowledge to the patient. We sell our confidence to the patient, if you will. If you don't do that, you're lost (County clinic, attending physician 2-004).

Issues of motivation are *embedded* in these salesmanship processes: from a medical perspective, subscribing to a rational, scientific model of diabetes treatment is to be motivated to act in one's best interest, and to reject or resist such a model in the context of clinical treatment is to act irrationally by not protecting one's health and best interests. In some cases, patients' behaviour is seen as irrational because their motivations remain opaque to providers, as in the above case of the Ph.D. biochemist who wanted to 'spend all his time in the lab'. In other cases, motivations are transparent, but providers do not share patients' priorities, as in the common example of teenage girls who purposely allowed their glucose to run high in order to effortlessly lose weight. In either case, salesmanship becomes key for trying to persuade patients to share providers' medically-based views.

While practitioners see motivation as deriving from education, they also connect it to intelligence, or patients' perceived abilities to understand their regimens. Several practitioners suggested in their interviews that acting *rationally* to protect one's interests, which is commensurate with subscribing to a medical model of diabetes care, is also acting *intelligently*. After describing

patients on insulin pumps who were hospitalised because they did not take appropriate preventative action when problems arose, one physician elaborated his definitions of intelligence:

It might be street smart intelligence, too, [since] it's not a matter of them all being college educated . . . [In my view], missed visits and once-a-year visits is poor intelligence (County clinic, endocrinologist 1-009).

The issue of motivation, in fact, pervades adherence assessments and regimen design. Practitioners may *explicitly* attribute poor adherence to a lack of motivation in a portion of cases. *Implicitly*, however, insofar as no one can exhibit perfect adherence all the time, 'insufficient motivation' lurks in the background as a constant possible account for behaviour. Part of being an effective salesman, then, is accurately determining the role of motivation in each patients' diabetes management, and the extent to which a given patient's motivation can be improved by inducing that person to change their diabetes management behaviour. When patients do not subscribe to a medical model of diabetes care and are not seen as appropriately motivated by the relationship between glucose control and complications, practitioners face a fundamental challenge to their ability to provide adequate care, as in the scenario described below:

I think that the most destructive behaviour is one where the patient actually ignores that they have diabetes, [and] pretends they have come to grips with that when they see the physician, but most of the time they're in denial. So you'll have a busy housewife who is going blind, is perpetually tired, and has infections, and she comes [to clinic and says], 'I've got three kids and I can't take care of my diabetes. I have to make the lunches in the morning [and I've] got to work'. She is telling you all sorts of real things, but meanwhile, while she's taking care of all these people in her life, her life span is incredibly reduced. Her ability to actually perform these tasks in the future is very much threatened [She's] lost sight of the investment return (Park clinic, attending physician 1-004).

Practitioners invest significant time and energy in resolving such motivational differences, and often bring other strategic stances to bear in service of 'selling' the importance of their own perspective. When patients and practitioners share these medical model perspectives, the challenge is much less, and the obstacles to adherence much lower, than in cases where they operate from different paradigms.

Cheerleaders

Even after educating patients about diabetes management and selling the medical model mission, patients generally still need help maintaining perspective and sustaining the energy levels required to execute it. Another

critical set of practices for practitioners, then, operating in conjunction with education and salesmanship, is that of cheerleader:

You cannot expect people to work that hard without in some fashion helping them see the benefit, so it's dependent upon you to *give the reinforcement continuously* . . . You've gotta put some time in and effort in conveying back to them that it's worth doing all this stuff. That it really is great that they lost 10 pounds or that they have a point five per cent drop in their hemoglobin A1C (Park clinic, attending physician 1-003).

Even for patients who subscribe wholeheartedly to the importance of glucose control for reducing long-term risks, and who follow complex regimens, there are the ongoing challenges of dealing with a sometimes unpredictable and often frustrating disease. Providers indicated that their ability to continually (re)enrol patients in the medical model is also essential for good care.

I believe that the role of the physician is to coach the patients through times where it looks like you'll never get there or times where you don't understand why, or the patient doesn't understand why the sugars are all over the place, and just assure the patient that it's do-able (Park clinic, endocrinologist 1-011).

Practitioners also provide support for patients as they manage the general challenges of chronic illness, and often discussed their attempts to foster relationships where patients view them as empathetic, thoughtful, caring and personally invested in individuals' wellbeing. Contrary to traditionally authoritative models of doctor-patient relationships (Freidson 1970, Parsons 1951), the practitioners in this study demonstrated an explicit orientation towards interactions that are more balanced and nuanced with regard to authority and lifeworld concerns (Mishler 1984), as described by this provider:

If you can talk to the patient and understand their problem and they have the feeling that you want to help them, and that you share some of their thoughts about the problem, and some of their worries, and some of their hopes, and that sort of thing, and if you can communicate that to the patient, then I think the patient's going to follow the instructions a lot better. If you just come in and tell them what to do, [that] he's got a list to take home, and maybe he'll do it and maybe he won't, but I think if you come in and talk to him [then] he knows you're trying to help him get better (County clinic, attending physician 2-005).

At the same time, however, efforts to address lifeworld concerns are ultimately oriented towards encouraging patients to prioritise the medical model, and to assist them in clearing the path of lifeworld concerns that

may impede their full subscription to providers' perspectives. In this sense, provider roles that superficially appear to be missing the markers of traditional authoritarian physician roles may simply be attempting old goals via new mechanisms.

Policemen

Although I observed practitioners using negative feedback to increase adherence in some instances, particularly among residents, the majority of them oriented towards the importance of positive reinforcement in their interviews, and, in fact, distanced themselves from policing stances. For example, one physician who claims to prefer 'using carrots as opposed to sticks' (like Gomart's 2002b 'generous constraints') to induce patient adherence disdainfully described how, early in his career, he used to see other physicians using glucose monitors to evaluate patients' honesty. Because many patients did not realise that early model glucometers could record the previous 100 readings, they did not know that providers could check the contents of their handwritten glucose logs against the electronic records contained in the meter. If a patient was misrepresenting his or her glucose monitoring habits, the problem would be revealed when '(t)he patient would produce this incredibly goofy log and there would be two glucose values in their meter'. In fact, seasoned practitioners tended to articulate nuanced opinions on this topic, and, as in the next excerpt, drew heavily on past experiences in explaining why they preferred to avoid policing patients:

I think I have a lot of patients who have had really bad interactions in the past with healthcare providers, usually doctors. They feel like they've been blamed for the fact that their diabetes isn't under perfect control and that some physicians are too quick to kind of blame the patient. Which I think is true a lot of times. I think it can have a real negative impact, and I have seen patients who just basically kind of give up and say, 'Well, ya know, I do the best I can and Doctor Jones still yells at me, [so] I'm not even going to bother' (Park clinic, attending physician 1-004).

By contrast, only four providers espoused policing roles in their interviews, as in this excerpt, where a physician describes the process of being punitive toward patients who have not followed their regimens:

You have to reinforce [what they've learned previously about how to manage diabetes]. Physicians are almost punitive. You tend to have this punitive, 'Oh well, you shouldn't do this, or you're not doing that', because you have this short period of time to correct something. It's a rare patient where I get to come in and say, 'This is terrific' (Park clinic, endocrinologist 1-014).

Observational data show that the providers most extensively immersed in diabetes care, such as regular attending physicians, nurse practitioners and diabetes educators, were highly unlikely to assume policing stances, while those who had less exposure, such as residents, fellows or rotating attending physicians, were much more likely to embrace it. Furthermore, these occupational differences led to a cultural effect within the clinics, particularly in Park, where there was high continuity of care and a range of providers working together regularly. In this sort of setting, interactions among providers discouraged policing and instead cultivated positive reinforcement and team approaches to care.

Together, these strategic stances – educators, detectives, negotiators, salesmen, cheerleaders and policemen – provide a varied and dynamic repertoire of practices and accounts from which practitioners draw as they assess and treat their patients. Practitioners demonstrated facility with these approaches, and explained their efforts to induce adherence among patients as working to customise their approaches according to the perceived needs of patients. Particularly for patient-practitioner dyads with long-standing relationships, these practices were highly evolved and practitioners were often attuned to the minutiae of patients' health needs and abilities. Similarly, practitioners with extensive experience in diabetes care more readily managed multiple strategies. It is in the course of enacting these stances and developing their own understandings of adherence that practitioners contribute significantly to diabetes outcomes.

Conclusion

In this paper, I examine how medical providers actively customise strategic stances and work practices in their treatment of diabetes patients, and how these practices are designed to induce adherence with treatment regimens. While the conceptual underpinnings of previous research on adherence focus on objective *causes* of nonadherence, the current study is concerned with understanding how practitioners *participate* in the phenomenon they are supposedly observing by *attempting to maximize* patient adherence in order to improve health outcomes. This argument also implicates literature on physician roles and how organisational changes in healthcare may have rendered obsolete traditional paternalistic models of physician authority. My findings show how, despite the emergence of 'partnership' roles in modern healthcare, the stances enacted by providers in Park and County clinics simultaneously retain some of the characteristics inherent in Parsons's early descriptions of physician authority.

The notion that medical practitioners can enact unique practices according to their assessments of patient adherence highlights the potential impact of individual-level interactional and cognitive phenomena within healthcare systems. The ability of a healthcare system to provide the sorts of customised

care outlined in the preceding analysis is not simply a matter of employing individual providers with the requisite skills to enact various strategies; it is also limited by the ecological environments in which those providers work and the organisational characteristics that may constrain and enable individuals' medical 'artistry'. As I described at the outset, Park and County serve very different patient populations and house different provider populations, and these differences affect the enactment of the provider practices outlined above. Specifically, the organisation of Park clinic – particularly the presence of the Diabetes Education Center – facilitates providers' enacting a broad range of roles tailored to patient needs, while that of County clinic – particularly its heavy reliance on residents and the resulting low continuity of care – makes it more difficult for patients to receive the same kind of customised care. Differences in adherence and health outcomes that can superficially appear to be a matter of differences in patient behaviour, then, may ultimately be not only about individual physicians enacting stances and practices customised to individual patients, but also the organisational and ecological environments in which they come together (Lutfey 2003).

Along similar lines, insofar as this analysis highlights the social implications of chronic illness, it raises the question of how these practices might operate in illnesses other than diabetes (i.e. HIV/AIDS, epilepsy, hypertension or depression). Because the data in this analysis are limited to diabetes clinics, they are of limited use in speculating about the specifics of other diseases. It is possible, however, to consider some underlying processes that could lead to similar findings in empirical investigations of other medical settings. As an obvious starting point, illnesses requiring periodic medical attention (where the consequences of not seeking medical help are unsustainable, as with seizures or severe infections) would seem to have more in common with the case of diabetes than chronic illnesses wherein patients could potentially avoid care indefinitely, or at least until there was an acute challenge (such as hypertension or depression). More generally, given that chronic illnesses are more likely than acute illnesses to depend on extended patient self-management, other diseases that require patients to learn about and attend to multifaceted medical regimens are also likely to depend on co-operative patient-provider relationships. To the extent that provider recommendations impinge in ongoing ways on patients' lives, it may be reasonable to speculate that traditionally-conceived, static, unilateral models of physician authority would be less likely to successfully and consistently induce patient adherence.

As I suggested at the outset, this paper is, in a broad sense, concerned with providers' understandings of the process of doing good medical work. In this way, 'adherence' is part of a rubric for medical decision-making, or an organising framework for justifying and accounting for medical work. In this sense, adherence is not just about patient behaviour, but is an integral part of the work that doctors do to sustain the rational, logical order of their decision-making. Along similar lines, provider roles are not just

professionalised behaviours passively inherited by practitioners according to expectations generated by their historical, cultural and organisational environs, but are customised practices deployed strategically and creatively in service of improved medical outcomes. From an ethnomethodological perspective, provider roles, much like patient adherence, become part of a rubric for medical decision-making, and a way of accounting for and explaining efforts undertaken to manage patient behaviour.

Findings from this study have important implications for medical sociological work on patient adherence and provider roles. First, the traditional notion that assessing adherence is only a matter of 'correctly' determining what patients are doing outside the clinic deflects attention from the work providers do to maximise adherence, and how, because of this work, providers are not simply passive *observers* of adherence behaviour, but active *participants* in a process that contributes to the very phenomenon they attempt to assess. In a sense, these providers use their everyday colloquial knowledge about motivation, persuasion, investigation and interaction *in combination with* their professional knowledge of science and previous experience with patients to accomplish their work in ways that are seen as rational and competent. Second, by examining providers' understandings of their own roles, this study highlights how aspects of those roles have retained much of the traditional character that Parsons described, insofar as providers are enacting them to preserve the authority of their medical advice by persuading patients to adhere to regimens. Finally, this study calls attention to the ways patient adherence and provider roles can evolve in tandem. In an era of increased prevalence of chronic illness, which requires patients to work co-operatively over time with their providers to learn how to 'self-manage' their illnesses, changing provider roles may result from the changing nature of medical work and the accompanying shift away from acute care models of adherence. If part of doing competent medical work – or 'good doctoring' – is inducing patients to follow recommendations to achieve good health outcomes, then this study illustrates some of the ways in which provider roles are changing in response to local changes in doctor-patient treatment processes rather than the sorts of organisational and economic changes to which role changes are often attributed. This study suggests that patient adherence and physician roles are conceptually broader and more fluid than what is captured in existing literature, and that understanding the multifaceted nature of these concepts will require stepping back from taken-for-granted conceptualisations and looking in a fresh way at the actual activities practitioners do and how they render those activities intelligible, rational and professionally appropriate in that process.

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Notes

- 1 In Britain, debate has shifted from 'compliance' or 'adherence' to 'concordance', a model 'based on the notion that the work of the prescriber and patient in the consultation is a negotiation between equals and that the aim is a therapeutic alliance between them' (The Royal Pharmaceutical Society of Great Britain 1997: 8). The present analyses remain relevant to a concordance paradigm insofar as relatively little analytic attention has been given to the ways providers may strategically affect patient behaviour in an environment treating the two as equal.
- 2 Because most diabetes patients in the United States are treated by practitioners of internal or family medicine, as opposed to the specialty clinics studied here, my data include a disproportionately high number of people using insulin pumps and other sophisticated regimens compared to the general population, as well as more people with Type I diabetes. This bias works to my benefit in examining adherence assessments, however, since data collected from a general practitioner's clinic would have less variation in regimen types and provide less information about how practitioners decide among them.
- 3 Park and County are pseudonyms.
- 4 Diabetes is also sociologically relevant because it disproportionately afflicts disadvantaged populations such as elderly people and minorities; more women suffer from diabetes than men, and more women die each year from diabetes than from breast cancer (Center for Disease Control and Prevention 2004, Geiss 1995). The costs associated with diabetes care are also extremely high, amounting to \$44.1 billion in direct medical costs and an additional \$54.1 billion in indirect costs (Center for Disease Control and Prevention 2004).

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