Managing Professional Work: Three Models of Control for Health Organizations

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Three arrangements for structuring the work of professional participants in professional organizations are described, contrasted and evaluated. Arguments are illustrated by application to the organization of physicians within hospitals. The primary rationale, the support structures that have fostered its development, the key structural features and the advantages and disadvantages of each arrangement are described. The effect on these arrangements of structures and forces external to any particular professional organization is emphasized.

From a sociological point of view, there are three primary arrangements for structuring the work of professional participants within organizations. I will discuss each of these structural types as a vehicle for describing and assessing the relation between physicians and administrators, and to a lesser extent, trustees in U.S. hospitals. I will attempt to avoid caricature and overstatement but must note at the outset that the great variety of hospital forms and practices militates against detail and precision in any brief, general treatment such as this.

The three structural models to be described are the *autonomous*, the *heteronomous*, and the *conjoint* professional organization. By a professional organization, I mean simply an organization in which the primary or core tasks are performed by professional participants. For each of the three models of professional organizations, I will describe the rationale, the support structures that have fostered its development, the organiza-

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tional features, the advantages—and for whom they are such—and the problems or issues associated with its operation. More so than most such treatments, I will underscore the extent to which each of these structural arrangements is driven by forces external to the organizations which manifest them.

AUTONOMOUS PROFESSIONAL ORGANIZATIONS

By definition, an autonomous professional organization exists to the extent that "organizational officials delegate to the group of professional [participants] responsibility for defining and implementing the goals, for setting performance standards, and for seeing to it that standards are maintained" [1, p.66]. Examples of types of professional organizations that are likely to conform to the autonomous pattern include general hospitals, therapeutic psychiatric hospitals, medical clinics, elite colleges and universities, law firms, and scientific institutes oriented to basic research [2, 3, 4, 5, 6].

RATIONALE

The most widely accepted explanation for the distinctive structures supporting professional work is that they constitute a response to the special characteristics of the work performed: work regarded as unusually complex, uncertain, and of great social importance. To insure the best possible outcomes under these difficult circumstances, the strategy pursued is to couple capability with discretion in one responsible actor and place him or her as close as possible to the problem situation. Individual professionals are subjected to a prolonged period of socialization and training in which they are expected to internalize standards, acquire a repertoire of skills, and master a general set of theoretical principles that will enable them to make decisions and act autonomously in a responsible and expert fashion. These internalized controls are supported and reinforced by collegial associations. Colleagues are viewed as (a) capable of exercising control since they have acquired similar skills and standards, and (b) motivated to exercise control since they have a personal stake in maintaining the reputation of their profession. It is asserted that clients or other recipients of services benefit by these arrangements: unable to evaluate directly the quality of the services they receive, they rely on the assistance of a set of highly qualified individuals who are collectively committed to protecting their interests [7, 8].

The professional association not only serves as an instrument of internal control but as a political body seeking to advance the interests of

its members. These associations, when successful, obtain state backing to defend their monopoly position with respect to the provision of specified services. Thus, physicians are licensed to practice medicine, and all unlicensed persons are specifically prohibited from performing this work. The power of the profession to determine working arrangements for their members extends beyond private practice into organized settings. As Freidson [9, p.24] notes:

> The effectively organized professional occupation controls even the determination and demarcation of tasks embodied in jobs supported by employers. . . . Through their influence on regulatory agencies, the organized professions (and the crafts) are often responsible for writing the job descriptions for their members and determining the employer's training and educational requirements as well as the kind of special skill imputed to the qualified worker.

An alternate explanation for the special arrangements enjoyed by professional workers focuses on their power as an occupational group. Analysts such as Friedman [10, p.137–160] and Freidson [11] point out the substantial economic and social advantages stemming from such a monopoly position and suggest the possibility of a reverse causal process: rather than power resulting from the special nature of the work performed, occupational groups enjoying power may define their work as having special characteristics. As is often the case in such lively controversies, the truth may lie somewhere between the two extreme positions. In any event, in the case of powerful professional groups like physicians, such claims have been successfully made.

SUPPORT STRUCTURES

As suggested, primary support for autonomous structures for professionals within organizations stems from the power of the organized occupational groups to define the nature and conditions of their work. Beginning early in this century, professional groups of physicians such as the American College of Surgeons and the Council on Medical Education and Hospitals of the American Medical Association began to promulgate procedures and standards defining the terms under which physicians should practice in hospitals [12, pp.102–107; 13, pp.33–39].

In addition to such direct efforts to define work arrangements, a fully developed profession is capable of mobilizing support for its cause from many sources: political—as it helps to shape relevant legislative, licensure, and regulatory activities [14, 15, 16, 17]; economic—as it exercises the powers stemming from its monopoly status [18, 19]; and legal—as its dominance over an area of activity is protected by statute [20].

The extraordinary power of this constellation of forces is captured in

Alford's description of a *dominant structural interest.* As Alford [21, p.14] points out, there are many interest groups in a complex social system but they are not all of equal power. The *dominant* groups are those whose interests are "served by the structure of social, economic, and political institutions as they exist at any given time." Their position is sufficiently entrenched and their legitimation so secure that they "do not continually have to organize and act to defend their interests; other institutions do that for them." Physicians are viewed by Alford as a classic case of a "professional monopoly" that has gained the position of a dominant structural interest in our society.

ORGANIZATIONAL FEATURES

Two features distinguish the structure of autonomous professional organizations. The first is a sharp demarcation between professional and administrative zones of control; and the second is the organization of the professional staff.

Administrative-Professional Sectors

In organizations of this type, legitimate control over the nature and quality of professional practice is vested in the professional staff, not in the administration. Although the situation is changing, as will be described in connection with the heteronomous and conjoint models, hospitals still conform substantially to this pattern.

Legal responsibility for the care of patients is lodged in the governing board of hospitals; nevertheless, most readily delegate responsibility for the setting and enforcing of professional standards of patient care to the medical staff [12, 13]. Rules forbidding the "corporate practice of medicine"—the doctrine that only an individual, not an organization, can be legally licensed to practice medicine—reinforce the authority of the individual physician and the collegial body of which he or she is a member. Lay control over professional discretion—whether client or administrative—is viewed as inappropriate.

The separation of professional and administrative jurisdictions is more clearly exemplified by U.S. hospitals than any other type of organization. Physicians have insisted on their prerogative to assume control over output (patient care) goals; and administrators have tended to accept the definition of their own domain as limited to organizational support or maintenance objectives. Physicians perform the key patient care tasks within hospitals which administrators maintain. Both groups generally endorse the validity and the propriety of the distinction in spite of the obvious overlap in the actual functions of physicians and admin-

istrators and the impact of administrators and those serving under their direction on the provision of patient care.

Organization of the Professional Staff

The second hallmark of the autonomous professional organization is that the dominant professional group organizes itself as a professional staff to support and police the performance of its members. In this discussion, we shall concentrate attention on the organization of physicians in hospitals; but it is instructive to note that the nursing staff in a few hospitals have taken steps to organize themselves as an autonomous professional staff, paralleling the structure adopted by the physicians [22, 23].

The primary tasks carried on within hospitals are diagnostic and therapeutic activities for specific patients. For the most part, individual professional practitioners, the most important of whom are physicians, conduct or direct these activities. Physicians organize themselves as overseers of these activities to ensure patient/client needs are met and to protect individual practitioners from inappropriate control attempts by nonpractitioners.

This key system of professional control has only gradually evolved in hospitals. As physicians began to conduct an increasing proportion of their practice in hospitals after the turn of the century, the predominant mode of professional care—independent, entrepreneurial, fee-for-service practice—was simply extended into the hospital. Wilson [24, p.178] comments on this arrangement:

> When the independent practitioner came to the hospital, he essentially wished to preserve this doctor-patient relationship undisturbed. If he could keep the relationship free from unsought incursions by the organization, while at the same time taking advantage of what the hospital could offer in the way of technical facilities and therapeutic environment, the physician would clearly enjoy the best of both worlds. To a fairly considerable extent, of course, this is precisely what occurred.

With the stimulation and encouragement of such professional associations as the American College of Surgeons, an increasing number of hospitals met the Minimum Standard for Hospitals requiring physicians to organize a "definite medical staff" to determine the physicians to be admitted to staff and the level of their privileges [13, p.36]. Such developments have continued so that, according to Somers [12, p.22], the medical staff which once was

> a collection of unrelated individuals who brought their private patients into the hospital for nursing care . . . has become a highly organized unit that is increasingly held collectively responsible for the total quantity and quality of care rendered in the hospital, and hence for its reputation and financial

> status. The medical staff is, in truth, the *sine qua non* of any hospital. It determines the institution's image of itself, its basic philosophy, and its effectiveness.

Somers correctly describes the *direction* of change—from aggregation of individual physicians to organized medical staff—but overstates the *amount* of change. At this point, there still remains great variation in the extent to which the medical staff in hospitals functions as "a highly organized unit" [13, 25].

Several layers of control may be identified in connection with the professional staff system [26, pp.47–51]. We describe four.

Peer Group Control. As already noted, part of the rationale underlying the structure of professionals is the expectation of direct collegial controls—one practitioner observing, correcting, and, if necessary, sanctioning another. However, the few studies we have of these processes question whether physicians (a) have sufficient opportunity to observe the work of their colleagues; (b) possess the particular competence—medicine is so highly specialized—to evaluate the work observed; and (c) have a sufficiently varied arsenal of effective sanctions at their disposal to back up their evaluations [27, 9]. Although questions arise concerning the efficacy of peer group control among professionals, these processes are certainly more likely to operate in collective settings (like hospitals) where practitioners work in close proximity, than in situations characterized by independent, decentralized practice—situations which are still the modal settings for the delivery of medical services in this country.

Differential Peer Group Controls. In virtually all occupations, the seniority principle operates as an important basis of control; professional occupations are no exception. In this connection, Etzioni [28, pp.256–259] points to three major rankings of professionals: professionals in training, pre-tenure professionals, and professionals with tenure. For professionals who are in training, e.g., interns and residents in hospitals, "it is obvious that their income, promotion, prestige, privileges, and facilities are controlled to a considerable degree by higher ranking professionals." Tyro-professionals provide care under the direct supervision of other professionals and are explicitly evaluated for the quality of the services they deliver.

Tenured professionals exert important controls over non-tenured staff members. Every hospital staff is required by the Minimum Standard for Hospitals (1919) and by the Joint Commission on the Accreditation of Hospitals (JCAH, 1952) to develop criteria for selecting medical staff members and, in particular, for awarding them privileges in the hospital [29; 13, pp.36–43; 30]. Moreover, probationary periods are imposed during

which more active controls and surveillance are practiced. In these and other ways, differential peer control is exercised in hospitals, providing a modified system of echelon authority. Again, however, the actual amount of control exercised in this manner varies greatly from one hospital to another.

Formalized Peer Group Controls. Once the professional staff becomes formally structured within a specific organizational context—as compared with informal structure within a community setting [31]—a specialized set of control mechanisms becomes available [11, pp.185–201]. A number of formally defined positions are created whose responsibilities include the exercise of professional control.

Many of these positions are nominally administrative arising in connection with the creation of specialized units and departments, e.g., chief of staff, departmental chair, director of a clinic, and often entail a combination of administrative and professional duties. Most analysts, beginning with Parsons [32, pp.58–60] and Gouldner [33, pp.22–23] have emphasized the difference between administrative and professional control, even when combined in a single office. In this vein, Goss [34], in her description of control patterns among a group of hospital clinic physicians, reported that a physician acting as clinic director exercised "authority," i.e., issued directives to which compliance was expected, regarding administrative matters like the scheduling of patients, but only proffered "advice" to professional colleagues in the area of patient care. This distinction is both time-honored and useful for differentiating administrative from professional control; but it may cause us to overlook the equally important distinction between informal and formalized peer group control. From the latter standpoint, what is important to note in the situation described by Goss is the extent to which surveillance duties have been concentrated in a few positions rather than distributed evenly throughout the colleague group, so that physicians occupying these positions are granted the "right" (and accept the "obligation") to routinely review all case records and make suggestions to individual practitioners concerning patient care. Moreover, as Goss [34, p.44] admits: these rank-and-file physicians "considered it their duty to take supervisory suggestions about patient care into account, and in this sense they accepted supervision." These represent important modifications in the structure of peer group controls.

In addition to the "departmentalization" of the medical staff leading to the creation of these administrative/professional positions, other formalized positions are created in connection with the medical staff's committee system. Most of the business of the medical staff is conducted through an elaborate set of committees. Functions performed range from

liaison with the hospital administration through the oversight of ancillary departments to the evaluation of physician performance in specific areas of patient care. The functioning of such committees is mandated by accreditation requirements so that virtually all hospitals exhibit a varied array of medical staff committees. Of particular importance for control purposes are the medical audit committees mandated in the 1950's by the JCAH and the utilization review committee requirements of Medicare.

The departmentalization of the medical staff combined with its elaborate committee structure clearly moves away from the model of a collegial structure toward that of a bureaucratic hierarchy. In appearance, however, these structures tend to be somewhat misleading.

Two important factors modulate their effects. First, the types of control exercised over individual practitioners are restricted primarily to: (a) selection, based on training, certification and other evidence of past performance; and (b) retrospective audits, based on a review of medical records or pathological evidence. That is, the controls exercised tend to occur before or after, not during the performance. This is consistent with professional norms mentioned earlier that grant a large measure of discretion to individual practitioners in the day-to-day management of patient care activities. Second, professional participants tend to circulate fairly rapidly through the formal positions, each occupying an office for a limited and specified period. Professionals do not generally perceive their career mobility as linked to advancement in administrative positions, and most are reluctant to take on such responsibilities and are more than willing to relinquish them at the end of their term of office. This continuous circulation of personnel both weakens the effectiveness of the formalized control system—in that participants are forever learning the job or preparing to leave it—and regularly infuses professional values into the system. Without question, it enhances the acceptability of the control apparatus to those practitioners subject to it.

Externally Authorized, Formalized Peer Group Controls. With the advent of the Professional Standard Review Organizations (PSRO) system, came the creation of a new layer of professional controls [35]. In principle, this system is designed to organize physicians on an area-wide basis in order to monitor the costs (appropriateness of hospitalization and length of stay) and quality of care provided by the institutions within that area. This system is described as externally authorized because its legitimacy stems from federal statute, not primarily from endorsement by those whose behaviors are to be controlled [36, pp.37–64]. At the same time, the principle of peer group controls is reaffirmed. By insisting that specified crucial roles (e.g., medical director, physician advisor) in the local PSROs be filled by physicians, the hope is that physicians' collegial norms will be harnessed, augmenting the legitimacy of the control system [37].

A variety of sanctions are available to PSROs to enforce their evaluations. Primary among these is decertification of care delivered for reimbursement from federal sources. Although they are rarely employed, more extreme financial sanctions are also available, e.g., suspension or revocation of a physician's right to be reimbursed for care delivered under the Medicare/Medicaid Act.

Individual PSROs do not operate in isolation but as part of a nationwide system: in all, some 200 local PSRO organizations have been developed and are organized into 10 regional areas, each of which is overseen by a regional office. A National Professional Standards Review Council of 12 physicians develops and distributes information to individual PSROs and reviews regional norms of care. Thus, the PSRO system is designed to coordinate and standardize controls within health care institutions on an area-wide basis and to link this review process into a national system. The hierarchy within the PSRO is designed to improve the technical capability of local PSROs to monitor and regulate the cost and quality of health care and, at least in the long run, influence the standards used by these agencies in carrying out their functions [38].

ADVANTAGES AND PROBLEMS

A major strength of the autonomous professional control system is that it places primary responsibility on the person to whom is granted greatest discretion. This arrangement is compatible with the physician's training and self-image, so that he or she does not attempt to resist or subvert it. Though control processes are supposed to operate somewhat automatically as part of the interactions associated with everyday work routines, the few studies we have suggest that a major weakness of the autonomous system is that informal peer controls are relatively ineffective. Among physicians, the efficacy of collegial control appears to be undermined by the "ethics" of professional courtesy [6, 39].

The effects of more formally structured control arrangements are well summarized by Palmer and Reilly [40]:

> There is a strong body of opinion and a little evidence that a highly structured medical staff organization is associated with a high level of care and that a loosely structured medical staff organization is associated with a lower level of care.

Empirical evidence supporting this proposition is reported by Morehead [41], Roemer and Friedman [13], and Flood and Scott [25]. Much more research is needed, however, before the opinion can be regarded as justified.

Another advantage of the autonomous professional system is the high priority which it places on the needs of individual clients. Physicians are under a number of pressures—economic, interpersonal, norma-

tive—to service the needs and, to some extent, the wishes of their individual patients. This strength is balanced by an associated cost: a focus on the needs of an individual client may benefit one patient at the expense of others. This is a manifestation in the health care arena of the micro-macro dilemma [42]. Since this is a distinction to be used throughout our analysis, it is important to define it clearly.

Micro care is focused on the needs and interests of individual patients; it is governed by a principle that assesses the needs of an individual as a basis for determining appropriate action and desired outcomes. The clinical orientation of physicians is one that places great emphasis on individual patient needs, their assessment and satisfaction [11]. By contrast, *macro* care focuses on the characteristics of populations of patients and is governed by principles applicable to that aggregate, e.g., the overall shape of the distribution of desired outcomes or the specification of minimum or modal levels of services [42, 43, 44]. It is important to stress that micro and macro principles may conflict: the latter is not simply an aggregated version of the former but represents a new and different basis for determining the distribution of services. For example, a macro-level rule specifying that a given proportion of hospital beds be set aside for Medicare patients may conflict with admission criteria focusing on the needs of individual patients.

Closely related to the micro-macro distinction is the cost-quality trade-off. If resources are unlimited, then micro concerns about individual patient care are less likely to impinge on macro issues relating to the distribution of care (e.g., issues of access and equity). However, as health care administrators are expected to give greater attention to cost containment, constraints are tightened on care decisions at the individual level. Put another way, restrictions on costs cause micro-level care choices to be increasingly interdependent with macro-level care issues.

The PSRO system is a recent development, and it is much too early to draw any firm conclusions. However, the apparent advantages of this new program include the promise of an arrangement for gathering comparable information on aggregate performance characteristics of hospital systems. This promise is supported by the development of more uniform patient abstracts, the availability of technical assistance and computer services for managing data, and the organization of performance characteristics on an area-wide basis, i.e., external to any specific hospital. The prospects are dimmed by such considerations as the lack of clear or widely accepted standards of care [45, p.246], the disinterest and, in some instances, active resistance of physicians, the absence of any specific role or voice for hospital interests [46], and most significantly, the changed political climate in Washington.

Additional comments on PSROs are made in the following section.

While some aspects of the PSRO program are consistent with the autonomous model, others reflect the heteronomous model of professional organizations.

HETERONOMOUS PROFESSIONAL ORGANIZATIONS

In the heteronomous professional organization, by definition, "professional participants are clearly subordinated to an administrative framework," and the amount of autonomy granted them is somewhat circumscribed [1, p.67]. Participants in these settings are more constrained by administrative controls than their counterparts in autonomous structures: they are subject to routine supervision. This type of organizational form is exemplified by many public agencies—libraries, secondary schools, social welfare agencies—and by private organizations like small colleges, engineering firms, applied research organizations, and accounting firms. In acute care hospitals, it also characterizes the situation of nursing personnel, physical therapists and similar types of professionals [47].

RATIONALE

Although historically the heteronomous form has been associated with weaker or less fully developed professional groups like nurses, engineers and social workers [48], patterns of patient care in hospitals have been moving in directions which make the heteronomous alternative more applicable to the work of physicians. Among the most important of these changes are:

- the increasing specialization of care among physicians (in response to the growing scientific and technical sophistication of medical practice) that replaces the medical generalist responsible for the "whole patient" with a collection of highly refined and restricted specialists
- the increasing dependence of physicians on hospitals as reflected in both the proportion of medical practice taking place within the confines of this institution and in the growth of salaried or contract physicians
- the increasing use of paraprofessional and technical personnel as vital and indispensable contributors to the delivery of medical care
- the expanding conception of the meaning of health, e.g., "the medicalization of social problems," [49] and of the legitimate arena of health services, which extends to include more types of

conditions, e.g., alcoholism, sexual adjustment, shyness and obesity, and more modes of practice, e.g., education, acupuncture, nutrition and biofeedback.

- the rapidly increasing costs of hospital care, sufficient to evoke the label "crisis," resulting in greater external pressures for cost containment and improved efficiency in the operation of hospitals.

All of these and related developments over the past three decades have led to the growth of power of hospital administrators and medical managers within hospitals [50]. They are increasingly expected to adjudicate differences among conflicting physician groups, coordinate the work flow among interdependent professional specialists and technical personnel, and pursue cost-containment strategies. They are also encouraged and required to assume greater responsibility for the quality of the health care delivered by the institution.

Courts of law both acknowledge and legitimate the increasing responsibility of medical institutions for the quality and appropriateness of the medical care delivered. The Darling case, "widely recognized by legal, professional, and public opinion as a landmark in the evolution of hospital corporate responsibility" [12, p.32], is but one of several specific rulings that recognizes the transition from independent professional to institutional accountability [12, 51, 52].

Many observers of the medical care scene have concluded that the physician's independence needs to be subordinated to organizational controls in the interests of improved quality and efficiency of medical care. Whether these controls are to be lodged in the hands of "lay" administrators or of medical professionals is less important than the growing consensus that such controls are required. As Somers and Somers [53] point out:

> The controversy over full-time medical directors and chiefs of service suggests that the basic issue is not so much physician versus lay management as between those in both groups who believe that the doctor's individual entrepreneurial role has to be considerably modified in favor of strong responsible management and institutionalized teamwork and those who do not believe this.

Those advocating the extension of heteronomous professional controls to all participants in hospitals, in particular to physicians, clearly subscribe to this former view.

SUPPORT STRUCTURES

Support for this view of the changing nature of medical care and the role of hospitals may be found primarily among administrators, medical and administrative educators, and governmental health authorities. All of

these actors share a common interest in what Alford [21] terms an ideology of "corporate rationalization." That is, emphasis shifts from a reliance on professional autonomy and individual discretion to organizational arrangements supporting a well-defined division of labor together with structural devices to insure coordination and control of the individual contributions. Greater efforts are expended to codify, standardize and quantify procedures to insure improvements in the modal level of practice and greater consistency among practitioners.

There is considerable evidence to suggest that this coalition of structural interests is gaining ground in its efforts to challenge and curb the power of the professional monopolists. We have already noted the increasing professionalization of the hospital administrators, reflecting an effort to develop a base of expertise and legitimacy for managers of health care institutions independent of the medical community. The growing power of the American Hospital Association (AHA) is indicated by such events as the creation of the JCAH in 1952 which provided an organizational framework for recognizing the legitimate role of administrators, along with physicians, in assuring the quality of care in hospitals. These organizations have become increasingly active in their efforts as indicated by the Quality Assurance Program, TAP Institutes, and continued upgrading of accreditation requirements for the standards of quality for professional services.

It is also important to recognize that no profession is a monolithic group; all represent collections of varying subgroups characterized by differences in their relation to clients, other practitioners, and supporting institutions [54]. Academic physicians, full-time physicians who are salaried or under contract to hospitals, and physicians engaged in medical and health care research are among the types of physicians who may be expected to promote the rationalization of health care. Given the widely shared belief that physicians should be controlled only by other physicians, the existence of physician groups who share the ideology of rationalization is a supporting resource of critical importance.

As is well known, government officials have also become increasingly interested and active in health care matters. Early interests in equity of access have blossomed into a growing concern for the efficiency and quality of health care services that are increasingly purchased with federal dollars. The creation of PSROs to monitor the appropriateness of hospital care is the most recent but should not be regarded as the final effort by the government to regulate the cost and quality of health services. The fact that the form of the mechanism employed takes into account the interests and claims of the dominant professional monopolists—physicians—should not obscure recognition of the larger truth that federal officials are now involved in systems designed to oversee the quantity and quality of health services in hospitals.

PSROs represent a compromise between the dominant structural interests of the professional monopolists and the challenging structural interests of the corporate rationalizers. The ideology underlying the program is one of rationalization: codification and standardization of quality of control procedures; however, the mechanism—local physicians' organizations—acknowledges the power of the professional monopolists by granting them the central roles in the operation of the system. As already noted, the compromise is possible because the medical profession is comprised of many factions, some of which share the goal of rationalization [55].

Finally, it is instructive to note that efforts to rationalize the delivery of social services are now very widespread in our society: the movement in health services is part of a much broader pattern [56]. Rationalizers in the health arena gain ideas and support from their counterparts working in other areas.

ORGANIZATIONAL FEATURES

Heteronomous professional organizations lack the two features that distinguish autonomous forms: the professional staff is not allowed to organize as a distinct corporate body, and sharp distinctions are not made between professional and administrative spheres of action. While U.S. hospitals tend to reflect the autonomous model, in most European hospitals, the medical staff is not organized separately from the administrative structure of the hospital [57, 58]. In many of the more recently evolved hospital forms with full-time medical staff, as well as in academic medical centers and the VA setting, we tend to see a blurring of the professional/administrative distinction. Though, at this point, few U.S. hospitals are actually heteronomous forms, we believe the direction of change is toward the heteronomous structure. Its major features are described below.

Conventional Hierarchical Form

Outwardly, heteronomous professional organizations appear to be conventional bureaucratic structures with horizontal division of labor—usually along functional lines—and vertical hierarchies to direct and coordinate the flow of work. However, there are also important differences between bureaucratic and heteronomous forms.

Delegation to Performers

Much more so than in the conventional bureaucratic organizations, decision-making autonomy is granted to individual, professionalized participants. Although they work within a general framework of institu-

tional rules and hierarchical structures, individual performers are granted considerable discretion over task decisions, in particular, decisions concerning means or techniques.

Augmentation of Hierarchy

Conventional wisdom might lead us to expect that, given increased delegation of decision making to individual performers, the hierarchical arrangements can be "lean," with few supervisors and broad spans of control. On the contrary, numerous studies have shown that heteronomous organizations exhibit a relatively high proportion of administrators and supervisors [59, pp.222–224]. In general, the more complex the nature of the work and the higher the qualifications of workers, the larger and more elaborate the hierarchy [60, 61]. Augmenting the hierarchy is simple: increase the number of managers and reduce their spans of control. However, the terms "manager" and "span of control" are somewhat misleading since in almost all cases, the managers are themselves professionals and the proportional increase in their numbers signifies not increased closeness of supervision but an attempt to improve the transmission of information and the decision-making capacity of the organization. Galbraith [62] has pointed out that the more complex, uncertain and interdependent the work carried on within organizations, the greater the information that must be transmitted during the course of the task performance. Augmentation of the hierarchy is an important device for increasing both the communication and decision-making capacity of the system.

An oversized administrative component also assists in handling the problems of coordination. In comparison with autonomous professional organizations, coordination requirements are substantially increased in heteronomous organizations. This occurs because in the latter form, physicians are no longer viewed as *the* provider of medical services, only as *a* provider. The organizational implications of this change are enormous. Generalist professionals are expected to perform a variety of services and to coordinate those that are provided—both their own and those of ancillary personnel [63]. Specialist professionals, in contrast, perform only a subset of the required tasks so that they contribute to the problem of coordination rather than toward its solution. Others, i.e., managers, administrators, directors, clerks must orchestrate and integrate their specialized contributions.

Teams

A structural form found more and more often in these settings is the team or project group. A variety of types of teams are found in medical care settings, ranging from the semi-permanent groups that regularly perform

specific functions, such as heart transplants, to the highly transitory systems developed to minister to the particular needs of a single patient. Teams are usually composed of persons from varying occupations; ideally, team composition and leadership, as well as duration, vary depending on the requirements of the tasks performed [64].

There is little doubt that the use of teams builds more flexibility into the system, permitting relatively rapid changes in the deployment of personnel. Nevertheless, the use of teams remains consistent with the hierarchical principle: the team leader is held responsible for the work performed by the team. (The fact that the identity of the leader may change from time-to-time or by situation does not alter that conclusion, but underlines the extent to which leadership has become formalized, i.e., separated from persons and associated with positions.) The continuity between team-based and more traditional hierarchical forms becomes more apparent when we recognize that the shift from conventional to team arrangements is basically equivalent to a shift from a functional to a product mode of organization.

ADVANTAGES AND PROBLEMS

A number of important issues arise when the heteronomous form is applied to the organization of professional work. In medical care organizations, most of these become issues of "the bureaucratization of medicine." As analysts and critics have noted, the use of large-scale organizations for health care delivery introduces a new element, i.e., the organization or institution itself, that may intrude into the practitioner-patient relationship. Mechanic has studied this problem and assessed its consequences for care. His conclusions, based on a review of others' as well as his own research, are as follows:

> Increasingly, the physician and other health workers are employees of a bureaucratic organization, resulting in a shift in their loyalties from the individual patient providing the fee to the organization, the profession, or the physicians' sponsors. Although the character of such shifts needs more careful study, indications are that the technical quality of care is enhanced, but that patients are dealt with more impersonally. Patients are more likely to feel that physicians are inflexible, less interested in them, and less willing to take time to listen to them. There is a tendency in such organizations to give relatively less attention to the patients' concerns and relatively more attention to the problems of organization and work demands [65, p.15].

A closely related issue pertains to the locus of decision making and responsibility for patient care. Again, Mechanic [65, pp.54–55] calls attention to dangers inherent in the heteronomous system:

> The bureaucratization of medicine also has the effect of diluting the personal responsibility of the provider, making it more likely that interests

> other than those of the patient will prevail. By segmenting responsibility for patient care, the medical bureaucracy relieves the physician of direct continuing responsibility. . . . It is far easier for patients to locate and deal with individual failures where responsibility is clear, than to confront a diffuse organizational structure where responsibility is often hazy and the buck is easily passed.

We have here the obverse side of the micro-macro dilemma noted earlier. If the autonomous structure gives priority to micro concerns of quality service to individual clients to the neglect of macro concerns of equity and distributional aspects of care, the heteronomous structure reverses the priorities, favoring macro over micro criteria of care.

More generally, designing control systems is always problematic. Heteronomous structures, like all hierarchical systems, presume that those designing the control system know better than the performers what types of decisions and behaviors are necessary or preferred. All performers resist this assumption to some degree; and it is always a risky assumption to some extent. There will always be some types of information available locally that are not available to those who design and maintain the control system. In the case of professional performers, external control systems are likely to be seen as inadequate, misguided, and illegitimate. Professionals see themselves as moral, autonomous actors, responsible and accountable for their own decisions, hence, needing to resist all efforts to regulate their actions. They emphasize the critical importance of decision making on a case-by-case basis and resist the notion that there are abstract or all-purpose formulas adequate to regulate their work. Thus, they are likely to resist external control arrangements on principle, believing that even if a particular rule may not be objectionable, the idea of administrative rules and the precedent for them must be resisted.

In addition to resistance to hierarchy, rules, and supervision in heteronomous systems, we would expect to observe difficulties in the use of teams, especially in medical care systems. Smoothness of team functioning presumes relative equality in the skills and power of participants, but this feature is lacking in most medical teams. Pellegrino [66, pp.310–311] upholds the value of flexibility in team leadership, noting:

> The captain of the team should be determined by the dominant features essential in the management of the patient. The captain should be the person who possesses the skill and knowledge most consonant with the dominant features of the clinical condition exhibited by the patient.

but then goes on to acknowledge:

> Most physicians do not as yet accept the idea of a shifting captaincy or of truly shared responsibility and decision-making authority.

Though one of the chief advantages of the team arrangement is supposed to be the flexibility it permits in the use of personnel of varying

skills and levels of training, the promise of flexibility is seriously curtailed because of the rigidities introduced by the licensing of almost all occupational categories. Neither tasks nor personnel can be redeployed to enhance the effectiveness and efficiency of care delivery without posing some conflict with licensure restrictions [12, 67]. The continuing importance of occupational licensure as the exoskeleton of health care delivery is a sure manifestation of the enduring power of the occupations and professions (as opposed to the administrators and managers) in determining the arrangements under which health care is dispensed.

CONJOINT PROFESSIONAL ORGANIZATIONS

More so than the other two models, the conjoint model describes a possible rather than an existing model of professional organization. Although some health care organizations appear to be moving in this direction, it is not easy to point to specific forms which conform to this model. For this reason, it is more difficult to provide concrete descriptions of the structural features, advantages and problems, etc., associated with this model. And, more seriously, our treatment of it may tend to be somewhat utopian, emphasizing its strengths and ignoring its deficiencies. In spite of these problems, I believe that the conjoint model is a potential model for structuring professional work.

The conjoint professional organization is one in which, by definition, professional participants and administrators are roughly equal in the power that they command and in the importance of their functions. Instead of one or the other group dominating, they coexist in a state of interdependence and mutual influence. (The conjoint model can accommodate more than two centers of power. Some may desire to see power shared with patients or their representatives. Such arrangements are possible, but more complex. I will not attempt to describe them within this paper.)

Tannenbaum [68] has pointed out that organizations vary not only in the relative amount of power or control exercised by one set of participants over another but also in the total amount of control exercised by participants. Thus, the conjoint model is characterized by more equal distribution of power and more total power exercised by each group. Professionals have greater influence on administrators, and vice versa, i.e., the professional/administrative functions are more highly interdependent than is the case in the autonomous or the heteronomous forms.

RATIONALE

As in the autonomous and the heteronomous forms, there is considerable differentiation in the functions of professional practitioners and admin-

istrators, with each enjoying primacy in certain arenas. The basic distinction, however, is no longer one of support (i.e., maintenance goals) attended to by administrators, and patient care (i.e., output goals) presided over by the medical staff. Instead, physicians and other health care practitioners specialize in the delivery of micro patient care, and administrators and medical managers attend to the delivery of macro care.

Because micro and macro principles governing care may conflict, those representing these principles must also expect to experience and wrestle with conflict, i.e., genuine differences in choice criteria, not simply misunderstandings or failures of communication. The recognition of the presence and the legitimacy of conflict is one of the features that sets off the conjoint from the previous models of professional organization. Rather than being suppressed in the dominant professional or dominant administrator form, the built-in conflict is expressed in the structural characteristics of the conjoint organization.

SUPPORT STRUCTURES

Support for the emergence of conjoint structures comes partially from the working out of processes previously described. As noted, professional participants, especially physicians, are increasingly involved in administrative and management responsibilities within medical care organizations, and the nature of these positions is such that macro issues dominate the agenda. Similarly, administrative officials are increasingly drawn into medical care delivery problems because of the specialization and complexity of coordination requirements.

However, the major impetus for increasing collaboration of professional and administrative factions within health care organizations is action taken by the federal government. (One might almost refer to the conjoint structure as the result of a shotgun marriage with the weapon held by Uncle Sam!) Much recent legislation requires better cooperation between administrators and physicians in curbing costs and assuring quality. The implicit threat is one of increasing governmental intervention and controls. Increasing pressures for external accountability have been a powerful force encouraging a more "cooperative" attitude on the part of physicians [46, p.106]. It also seems apparent that the new JCAH standards for quality assurance—standards that stress the combined responsibilities of trustees, administrators, and physicians—represent an "industry" response to the threat of increased federal controls.

Yet another source of external pressure for increased collaboration on quality control is the increasing number of court decisions which hold the hospital, not just the physician, liable for the quality of care dispensed. Kinzer [46, pp.125,126] comments on these developments and their implication for internal collaboration between administrators and physicians:

> Court precedents, from Darling vs. Charleston Community Hospital up to Gonzales vs. Nork and Mercy General Hospital, seem to firmly establish hospital responsibility and accountability for the performance of members of its medical staff.
> One of the constructive outgrowths of the Darling-Nork trend in court decisions has been the persistent effort to meld the hospital into one legally accountable entity, instead of what has often been described as "a three-legged monster without a head." The hard part of this has been to get members of the medical staff to believe that they function as an integral (and accountable) part of the hospital organization, and not as a separate power block functioning within the hospital walls. Progress in this area has been slow but steady.

ORGANIZATIONAL FEATURES

Our discussion of the structural features associated with conjoint professional organizations is necessarily vague and somewhat general since relatively few organizations of this type presently exist. If our analysis is correct, more are currently in the process of "becoming."

A Pluralist Structure

Conjoint professional organizations are expected to exhibit a pluralist form. Kornhauser [69, p.197] has portrayed this type of structure in his description of the structural features of scientific research organizations:

> Where participation is mediated by partly autonomous relations and where at the same time there is access to the organization, the system tends to acquire a *pluralist* character. This means that there are multiple centers of power. The organization does not wholly absorb professionals, nor do professionals wholly absorb the organization. To the extent that a system of relations is pluralist, it tends toward a balance of freedom and power or, in functional terms, between the conditions conducive to creativity and those conducive to control.

Ideally, we would expect to see some relatively independent and autonomous structures embodying the diverse and sometimes conflicting interests of administrators and practitioners, and we would also expect to see some relatively interdependent structures created to allow the conflicting parties to come together to express and deal with their differences. In particular, quality assurance programs that often consist of a set of diverse and uncoordinated medical staff committees and PSRO-mandated units, need to be gathered into broader and more articulated frameworks supporting the involvement of medical and hospital administrators together with practitioners in a standard setting, data gathering and interpretation, and appraisal and feedback activities. These are the settings and these are the types of issues around which macro and micro care interests and concerns should come together in health care organiza-

tions. For the conduct of such programs, the skills of integration, negotiation, bargaining and conflict resolution will be in great demand.

On the other hand, one of the hallmarks of the pluralist structure is that all activities and units need not be tightly linked and coordinated. The presence of highly professionalized participants who have their own norms of practice and modes of control means that many units and subdivisions may be allowed to function relatively autonomously. Most treatment and care units are parallel rather than interdependent units, organized to meet the needs of patients within their own boundaries. Only the more complex cases require the joint collaboration of two or more specialty groups. Thus, pluralist structures are in many respects and for many types of activities, "loosely coupled" systems [70] comprised of relatively independent and autonomous units and programs that do not require tight controls or high levels of coordination. Since many arenas of autonomous functioning remain, we need to supplement the integrating skills listed above with a set of buffering, differentiating, insulation and segregation skills and tactics.

Matrix Structures

For those issues and areas of maximum interdependence across specialty groups and levels that require extensive coordination efforts, matrix structures may be the most suitable form [71, 72]. The matrix structure is appropriate when most or all of the organization's or unit's work is carried on within a shifting set of project teams. The hallmark of the matrix is the simultaneous use of two competing bases of authority, typically a project or product base and a functional or disciplinary base. Thus, a physician will be responsible to both the project leader of his team (e.g., the chief surgeon on the operative team) and the department head (e.g., chief of surgery). The project interests are more likely to encompass micro patient care goals; the departmental interests, macro concerns. By requiring participants to take both into account simultaneously, matrix structures elevate these conflicts into a structural principle. While institutionalizing conflict in this manner does not resolve it, it does insure that both project (micro) interests, and departmental (macro) interests receive attention. Matrix forms eschew the unity of command principle in order to stress that under some conditions, decisions and actions must serve multiple, sometimes conflicting, objectives.

Concentric Spheres

The autonomous and heteronomous models presume a hierarchical arrangement within which either the professionals or the administrators

are dominant. The conjoint model has sometimes been conceptualized as a side-by-side system offering differentiation and parity to each sector. But this image is misleading. It is more useful to visualize the conjoint professional organization as composed of a series of concentric circles [73]. The innermost circle represents the technical core of the organization. In hospitals it includes the settings in which care is actually dispensed: examination rooms, operating theaters, patient care wards. It is within this zone that the autonomous professional interests and values may be expected to dominate. However, they do so within constraints set by the outer circles. The second circle is comprised of the medical managers and support systems providing backup to the patient care workers. Managers not only coordinate and control the interdependent units providing direct services to patients but also administer more remote but essential support programs: personnel, admitting, accounting. The third and outer circle includes general administrators, both hospital and medical, and administrative units that relate to the hospital environment, e.g., third party payers, regulatory groups, and, finally, the hospital board. All of these officials and groups relate primarily to the hospital environment and mediate its impact on the hospital's structure and services. In many ways, the outer circle orients out toward the environment as much or more than it faces in toward the hospital's technical work. The primary task of managers in this sphere is to build bridges between their organizations and relevant environmental units, while seeing to it that processes within the technical core are buffered or insulated from these perturbations and uncertainties [74, 75, 59].

As we move from the core to the peripheral structures, we would expect to see the changing mix of administrative and professional values noted by Kornhauser [69, p.201 (The term "medical" has been substituted for Kornhauser's "scientist" administrator)].

> The role of [medical] administrator has been discussed thus far as if it were a single position. But there is actually a hierarchy of positions of [medical] administration. The adaptation of the [medical] administrator tends to vary according to his rank: the higher the position, the more controlling are the norms of management and the organization; the lower the position, the more responsive is the [medical] administrator to professional norms and demands.

Kornhauser emphasizes the changing mix of values. This is valuable, but so also is the more general point that all positions contain some measure of both values. In a professional organization, no administrator should be completely governed by administrative (macro) values; and no practitioner should subscribe exclusively to professional (micro) values. In a healthy professional organization, intra-role conflicts will be as numerous as, if not outnumber, inter-role conflicts.

A Strengthened Board

In our discussion of support systems for the emerging conjoint structure, we emphasized the importance of the threat posed by an increasingly active federal bureaucracy. Physicians have been "encouraged" to collaborate with administrators in the development of more effective and efficient health care delivery systems. These alliances are at least partially defensive ones. A second tactic in a local hospital's defensive strategy is to strengthen its board of trustees.

Although, in the beginning, the boards of general hospitals were the centers of power [76], they have until recently been relatively weak. They are now growing in strength for at least three reasons—the first, general to many organizations, the others, specific to hospitals.

Initially, they can serve as important resource-gathering and protective mechanisms for organizations [75]. In times of growing environmental turbulence, when more opportunities and dangers are found in systems and events external to the organization, boards serve in several ways. They become important sources for information, connecting links to critical environmental elements, and sources of legitimacy and good will. Studies by Pfeffer [77] support the thesis that hospitals use board appointments to establish a relationship with important segments of their environment, and specific appointments vary to reflect the particular needs of different types of hospitals.

The second factor encouraging the development of stronger boards is the recent stream of legal decisions placing responsibility for the quality of care delivered in hospitals on the trustees. There is nothing quite like holding a group responsible for a set of behaviors, to motivate it to increase its control over those behaviors.

Third, both hospital administrators and the medical staff look increasingly to the hospital board as a voice for community and localized interests and, in this sense, a bulwark against centralized, federal controls. As noted, the PSRO program may be viewed as moving the health care system toward a more centralized and uniform set of care standards and practices. Many local physicians and hospitals are resisting this pressure, and are doing so under the banner of preserving local community control. Strengthened boards increase the power and legitimacy of these efforts.

ADVANTAGES AND PROBLEMS

The conjoint professional organization represents an approach that recognizes both the autonomy requirements of professionals and the increasing interdependence of the work they perform. It attempts to combine the administrative forms essential for coordinating and attaining macro-care goals with the spheres of autonomy essential for pursuing

micro-care goals. It provides overlapping roles and structures that allow administrators to co-opt professionals in the decision bodies stressing macro-care goals, and professionals to co-opt administrators in decision areas stressing micro-care goals.

Micro- and macro-care concerns need to be kept in close proximity to one another. If they are separated, unrealistic and inappropriate "solutions" are likely to result. Those attempting to devise the constraints and incentives to shape the distribution of care at the macro level must take into account the manner in which their directives will be received and responded to by those delivering micro care. In their enthusiasm to rationalize and quantify, reformers may impose inappropriate requirements that can result in sterile and non-therapeutic standardization of care and impersonal inflexibility of services. Decisions made or rules promulgated far from delivery sites can engender a variety of problems when implemented. At this point, that conjunction of events does not appear to be too widespread. In part, this is due to the continuing power of professional practitioners. Few attempts at rationalization and reform have considered how practitioners may be expected to interpret and react to administrative goals or "the specific mechanisms by which policy goals are to be reached" [44, p.47]. In addition, administrative controls developed thus far—both incentives and sanctions—have not been powerful enough to cause major behavioral changes in practitioners who have their own ideologies and justifications for care decisions.

There may also be a defensive response to external regulatory attempts at the *organizational* level. Externally imposed requirements defined by organizational managers as inappropriate or misguided often receive a symbolic response—assurances of cooperation, gestures of support, reports of attempts to comply—accompanied by little change in the specific behaviors that were the target of the change attempt [78, 79]. Symbolic changes may even take the form of structural modifications in which new committees or offices are created signaling to the environment the organization's responsiveness, the signal being accepted at face value as an indicator of compliance in the absense of data regarding the efficacy of the new forms [80].

I do not wish to condone duplicity or to praise noncompliance with externally imposed regulations, but I cannot refrain from noting that all organizations devise tactics and structures to protect their core activities from undue influence from their environments. Professional organizations in particular may be expected to be highly creative and resourceful in buffering and sealing off their central work processes. That is why we would not expect change efforts to be effective unless they take into account the specific characteristics of these organizations with their unusual participants and distinctive structures.

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