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VERBAL BEHAVIOR OF THE NURSE
IN MULTIDISCIPLINARY
TEAM CONFERENCES

A Thesis
Presented for the
Master of Science in Nursing
Degree
The University of Tennessee, Knoxville

Margaret L. MacVean

May 1989

ACKNOWLEDGEMENTS

I would like to thank the chairperson and committee members who assisted me in the various steps of the thesis project--Sandra P. Thomas, John Jozwiak, Dava Shoffner and William A. Poppen. Dr. Poppen's copy of the Group Types, Version 1.1 program proved to be particularly helpful in generating the SYMLOG diagrams.

Other persons associated with the College of Nursing also contributed to the study. Julie Coach, senior undergraduate student, served as research assistant. Michael Lusk, Ed.D., Director of Audiovisuals and Computer Services, provided technical assistance on many occasions.

I particularly appreciate the financial support provided me by Gamma Chi Chapter, Sigma Theta Tau International. I am pleased to carry forward with the organization's goal of advancing nursing scholarship.

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ABSTRACT

Nurses are in a position to provide information that is vital to the planning of patient care, but may not make verbal contributions during team conferences for a variety of reasons. This investigator sought to determine if other disciplines were more dominant during team meetings, if nurses refrained from making verbal contributions, if they preferred to be deferential to some or all of the team members, and if nurses expressed a high need for affiliation with some or all of the team members.

Subjects were members of a 10-person multidisciplinary team serving a psychiatric unit in a 350-bed acute care hospital. The investigator studied 10 team conferences over a five-week period, employing two observers who rated each subject on the SYMLOG Adjective Rating Form. Some subjects also completed the Edwards Personal Preference Schedule. The investigator interviewed each of the three nurse subjects individually.

Other disciplines were shown to be more dominant than nurses during team conferences. Nurses acknowledged having refrained from making verbal contributions at times. Three submissive subjects were identified, one of whom was a nurse. Submissive subjects all expressed low preferences for deference, in contrast to their observed behaviors.

Measures of affiliation provided inconclusive results.

Implications for nursing practice and further research were discussed.

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CHAPTER I

INTRODUCTION

Statement of the Problem

One mode for the delivery of health care is the multidisciplinary team that functions to design integrated care plans for the client population served. Nurses are frequently members of multidisciplinary teams, in facilities where such teams exist. Often the team conference serves as the forum in which all members must present and defend their contributions to the plan of patient care. If any one discipline does not fulfill its role, then the end product--individualized and comprehensive patient care--may be jeopardized.

Although nurses are often in a position to provide information that is vital to the planning of patient care, there is concern that some nurses do not always share this information with multidisciplinary team members. There are at least two major arguments about why this may happen. First, women predominate in the profession of nursing, and passivity has been the traditional behavior of females. In the not too distant past, researchers characterized the nurse personality as one that preferred deferential relationships with others. This led to speculation that

nursing either attracted, created, or retained individuals with passive personalities (Grimm & Crawford, 1978).

Second, nursing's legacy is also one of subservient relationships with physicians, if not other disciplines. Subservience functioned to distort the nature of communication between nurses and physicians (Stein, 1967). Specifically, nurses were encouraged to be indirect in making suggestions about treatment. Since physicians are commonly included in multidisciplinary teams, nurses may be inhibited in communicating their original observations and ideas in that setting. In fact, it can be surmised that in some instances nurses have refrained from presenting any recommendations, regardless of the professional composition of the multidisciplinary group, due to what H. O. Mauksch termed "blame avoidance", an extreme fear of making mistakes (cited in Menikheim, 1979).

With the expansion of knowledge that can be brought to bear on management of health care problems, nurses can no longer remain silent or rely on subtle hints and innuendoes. With increased specialization among physicians and other team members, valuable ideas will remain unrecognized or be disregarded because they lie outside the individual specialist's customary range of comprehension. Unless the nurse can verbally illustrate the worth of nursing observations or recommendations, the ideas are

likely to remain either unknown or underutilized. There is then a risk of abandoning the patient to care that is haphazard and fragmented, if not clearly unsatisfactory. Thus, efficient use of nursing personnel requires that individual nurses feel free to speak openly on any aspect of care that may impinge on a patient's recovery or quality of existence, and that they do so effectively.

The purpose of this study was to describe the participation of nurses in a series of multidisciplinary team conferences and to identify selected factors promoting or inhibiting verbal contributions by those nurses.

Subsidiary questions were:

1. Do members of other disciplines exhibit greater dominance than do nurses during team conferences?
2. Do nurses refrain from contributing to patient care planning when they have a unique contribution to make?
3. Do nurses prefer to be deferential to some or all of the team members?
4. Do nurses have a strong need for affiliation with some or all of the team members?

Significance of the Study

Examination of how nurses currently interact with other health care professionals in multidisciplinary teams

could ultimately lead to many benefits. As alluded to earlier, with satisfactory nurse participation, multidisciplinary teams may render more effective patient care. When nurses share their knowledge and expertise with the team, a greater range of therapeutic interventions may be considered, treatment regimens may become more individualized, and the team's efforts may become better coordinated. The final result could be improved outcomes for the clients being served.

The multidisciplinary team provides a forum in which nurses can demonstrate their professional worth to other disciplines. If nurses could become more universally regarded as valuable contributors in the planning of patient care, nurses would probably approach their clinical assignments with greater enthusiasm. This could result in improved productivity and retention of individuals in the profession.

Health care organizations also stand to benefit from a study of this sort. Improved use of human and material resources is one of the more obvious benefits. In a competitive health care market, administrators must also be concerned with delivering effective patient care. Furthermore, with the new emphasis on product-line management (Droste, 1988), multidisciplinary teams become an obvious structure for delivering high-quality

specialized products. Examples are cardiac rehabilitation, diabetes education, and elder care, among others. In fact, all health care specialties can probably make use of the multidisciplinary team format in some manner.

Incorporation of the multidisciplinary team into the structure of large health care organizations may represent the natural evolution of those organizations to what is termed matrix structure, in which workers maintain ties to both specialized departments and project teams (Kolodny, 1979; Mintzberg, 1979). Administrators, including nursing leaders, need to know how to promote effective team functioning in order to reap the benefits of this type of organizational sub-unit and allow the parent organization to thrive.

Conceptual Framework

Mintzberg's (1979) theory of five fundamental types of organizational structure has been selected for its capacity to explain behavior of individuals in organizations. Two of the types, the Professional Bureaucracy and the Adhocracy, are of particular importance to this study. The Adhocracy is especially relevant to the study of small groups that must collaborate to generate products and services possessing unique, non-uniform properties.

The Professional Bureaucracy is a structure that enjoys widespread use, but is not to be confused with the classic bureaucracy that has been portrayed in organizational management literature for a number of years. Mintzberg (1979) referred to the latter form as Machine Bureaucracy. Professional bureaucracies are composed of professionals with academic preparation in their specialties, such as those professionals who provide services to patients in health care organizations: dietitians, nurses, pharmacists, physical therapists, and physicians, among others.

In professional bureaucracies, the professionals are the true workers. They interface with clients and render the services. Each professional's ties are to his functional specialty, and the organization operates on the premise that each niche is satisfactorily filled by a given specialist. Each professional usually prefers to work alone with every client. Professional bureaucracies are known for fragmentation of service and inability to generate innovative solutions for those clients whose needs cannot be met through application of the conventional wisdom of the providers' specialized disciplines (Mintzberg, 1979).

The Adhocracy, however, draws together an array of functional specialists who collectively possess the

knowledge needed to produce a unique product or service, assigning responsibility for accomplishing that goal to each and every member in the group. Functions of individual members within the group may be frequently renegotiated in order to acquaint members with the pertinent knowledge base of the other specialists and increase opportunities for recognizing new applications for previously acquired knowledge. The Adhocracy succeeds where the Professional Bureaucracy fails in designing innovative products and services and meeting unique client needs. Unfortunately, the Adhocracy is not very efficient, as each task is a new one. Adhocracy members also experience considerable stress, since responsibilities are often ambiguous, and the prerogative to make decisions and allocate resources may frequently shift from one individual to another (Mintzberg, 1979).

Mintzberg (1979) emphasized that organizational structures or units that are truly capable of problem-solving are few and far between. This author suggests that if adhocratic structures can increase in number, and if nursing can establish itself within those structures, then the contribution of nurses to solving long-standing, complex health care problems may become widely recognized by other disciplines. Currently, the nursing profession is caught up in trying to establish itself within the

Professional Bureaucracy, which demands that nursing define its niche. To date, defining nursing's niche has proven to be an elusive goal. In the view of this author, the profession must examine the possibility that only within the Adhocracy will nursing come into its own.

Nominal Definitions

For the purposes of this study, multidisciplinary team has been defined as a group consisting of four or more health care professionals representing separate areas of expertise, who collaborate to improve the health of patients. Nurse has been defined as any team member who possesses Registered Nurse (RN) or Licensed Practical Nurse licensure and who is employed by the hospital in a nursing position. Team conference has been defined as face-to-face, time-limited discussions among members, for which the stated purpose is design and implementation of patient care.

Dominance has been defined as the capacity of individuals to promote their own recommendations within the group, to assume informal leadership, to facilitate group decision-making, and to command the attention and cooperation of others. Deference has been defined as the proclivity of individuals to "accept the leadership of others, . . . to conform to custom and avoid the

unconventional, to let others make decisions" (Edwards, 1959, p. 11). Affiliation has been defined as the propensity of individuals within the group to be loyal to friends, other members of the same discipline, or the entire team; to form strong attachments, and to construe interprofessional relationships in terms of friendships.

Summary

Nurse participation in multidisciplinary team conferences may not reflect the true ability of nurses to contribute to team-delivered care. Social, cultural, and organizational constraints, as well as personality characteristics, may conspire to produce a reduced level of verbal participation in team conferences for nurses. This study was designed to examine nurse participation in multidisciplinary team conferences from two perspectives. Both the nurses' and external observers' point of view are reported.

CHAPTER II

REVIEW OF LITERATURE

This review draws on several diverse bodies of literature, in an effort to consider the wide range of variables that potentially influence nurses' verbal participation in multidisciplinary team conferences. Because most multidisciplinary teams are part of large, complex hospital organizations, it becomes necessary to examine the effect of that type of organization on the team and its members. The status of multidisciplinary teams in the health care setting will then be explored, with emphasis on the nature of interprofessional relationships and styles of team interaction. Finally, a look will be taken at nurses, themselves--their social and cultural histories and their internal motivations, as determined by personality studies.

Health Care Institutions:

Insights from the Organizational Literature

Features of Adhocracy and Professional Bureaucracy will be explored in detail, with attention given to identifying how those features are expressed in the health care setting. For the purposes of this thesis, the general

or university hospital will be used as the reference institution to which the pertinent concepts will be applied. Although nurses function as members of multidisciplinary teams in other types of health care agencies, the vast majority of nurses are employed in hospitals (American Nurses' Association, 1987).

Review of Selected Terms and Concepts

Mintzberg (1979) identified five components of the fully developed organization. These are the operating core, middle line, strategic apex, technostructure, and support staff. The relationship among parts in Mintzberg's prototype organization is shown in Figure 1. Only the operating core and support staff will be addressed here. The operating core consists of the individuals who carry out the actual production tasks of the organization. In the hospital setting the operating core includes physicians, for example. Mintzberg also included nurses in this group, although he made no mention of the other types of allied health professionals.

By definition, the support staff functions to provide services necessary to enabling the operating core to carry out its work. Mintzberg (1979) characterized the support staff as comprising a number of distinct mini-organizations operating outside the central flow of work. This author takes issue with Mintzberg's placement of nurses and,

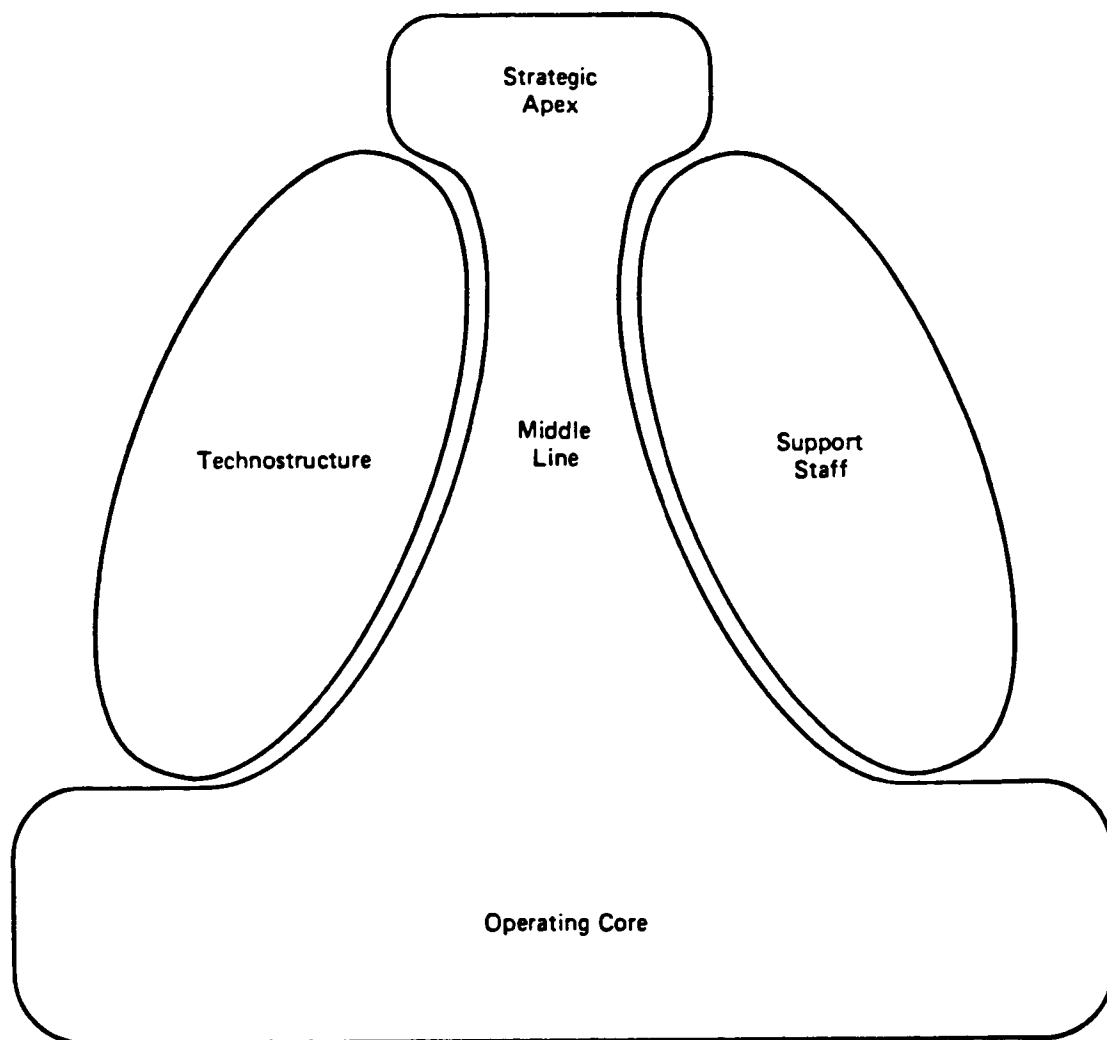


Figure 1. Component parts of the prototype organization.

Note. From Henry Mintzberg, *THE STRUCTURING OF ORGANIZATIONS: A Synthesis of the Research*, © 1979. p. 20. Reprinted by permission of Prentice-Hall, Inc., Englewood Cliffs, NJ.

presumably, allied health professionals in the operating core rather than the support staff. Although this investigator agrees that nurses and other allied professionals deserve to be members of the operating core, the characteristic responses of management and physicians to nurses are typical of operating core members toward a support staff. Furthermore, nurses exert their influence on the hospital organization in a manner that is very similar to that of the support staff in Mintzberg's typology.

Large organizations have little choice but to organize their personnel into work groups, and there are two bases upon which that grouping can occur. Grouping of workers according to similarity of function is typical of the hospital organization. Members of departments organized along functional lines share similar knowledge and skills, and engage in similar work processes. By contrast, employees could be organized into groups that focus on a specific clientele, or product (Mintzberg, 1979). This format, too, is found in hospital organizations, but it is much newer and much less pervasive.

Degree and rigidity of structure is another variable in organizational framework that influences how work is done in an organization. At one extreme is the mechanistic

or bureaucratic organization with elaborately defined hierarchy and detailed specifications regarding job functions and methods, as well as clear delineation of the responsibility and authority ascribed to each position. Two texts labeled the polar opposite as the organic organizational structure (S. Burns & Stalker, 1961; Mintzberg, 1979).

Coordinating mechanisms become critical to the survival of any large organization, and Mintzberg (1979) described five, only two of which will be mentioned here: standardization of skills and mutual adjustment. Standardization of skills represents prior training and education for the specific job in question, including the sort of education that all professional health care workers bring with them to the hospital organization when they begin employment. These persons have already acquired a mental program of sorts that directs their actions on the job, and results in a modest degree of coordination among workers.

Mutual adjustment is always called for as the supplement to all other means of organizational coordination. Mintzberg (1979) claimed that liaison devices designed to foster mutual adjustment "represent the most significant contemporary development in organization design" (p. 161). He identified task forces and matrix

structure as being two such devices, and emphasized that the meeting format is the most frequent means utilized to pursue mutual adjustment.

Matrix structure represents the concurrent use of functional and market-based or product-line groupings within the organization. In other words, each employee responds to his or her functional department as well as to the multidisciplinary project to which he or she is assigned. Certainly, many members of a multidisciplinary health care team maintain dual ties within their hospital organizations. Mintzberg (1979) acknowledged that the principle of unity of command is forsaken in the matrix structure. Such a violation has been traditionally looked upon with disfavor, but potential benefits have recently been recognized, if the organization is willing to put sufficient emphasis on informal negotiation (Sayles, 1976).

Individual jobs or roles can be classified as (a) horizontally specialized, (b) vertically specialized, or (c) a combination of both. Horizontal specialization is the classic division of labor. Workers divide the tasks involved and specialize in one function. Vertical specialization refers to separation of task performance from the administrative considerations involved (Mintzberg, 1979). Extent and nature of specialization is important in

describing and analyzing the collaboration or lack of it among workers in a large organization.

A professional job in the operating core is one that is complex, horizontally specialized, but having very little vertical specialization. In other words, there will be little, if any, administrative hierarchy above the position as it appears on the organizational chart. Figure 2 characterizes this change in emphasis found among professional bureaucracies. Support staff positions are also horizontally specialized. However, those found in the lower ranks of the organization are vertically specialized, as well (Mintzberg, 1979).

Allocation of decision-making powers will be selectively dispersed into the organization both horizontally and vertically as specialized expertise becomes more essential to those decisions. This is termed decentralization. Mintzberg (1979) summarized the literature by stating that "the more professional an organization, the more decentralized its structure in both dimensions" (p. 201).

Mintzberg (1979) described two kinds of professional work: independent and interdependent. He characterized educators and accountants as independent, having limited need for mutual adjustment because standardization of skill is largely sufficient as a coordinating device. He also

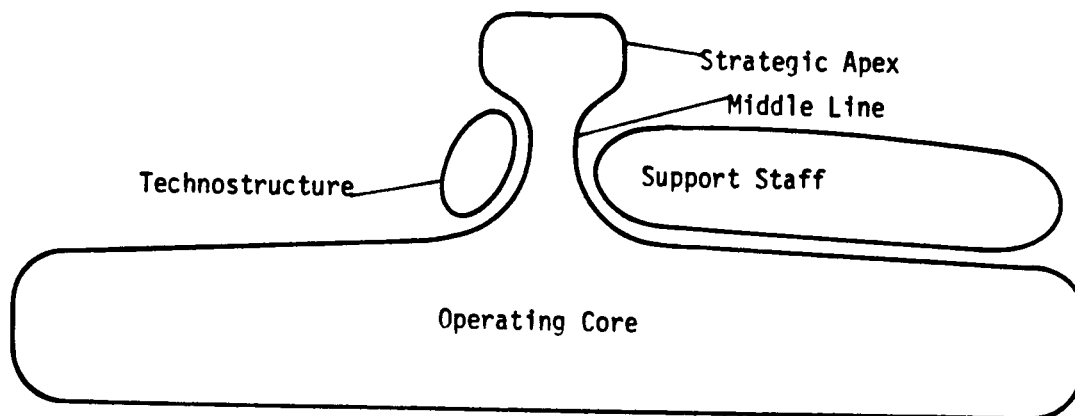


Figure 2. Relationships among organizational parts in the Professional Bureaucracy.

Note. From Henry Mintzberg, *THE STRUCTURING OF ORGANIZATIONS: A Synthesis of the Research*, © 1979. p. 355. Reprinted by permission of Prentice-Hall, Inc., Englewood Cliffs, NJ.

spoke of other professional groups, such as research laboratories, which are too interdependent to rely on standardization of skills. They must make heavy use of mutual adjustment. Unfortunately, Mintzberg did not address just where hospital-based health care falls on this continuum. Interdependencies may be much greater than the professionals within those organizations are willing to acknowledge, however.

Mintzberg (1979) went on to state that the professional's task can be reduced to two basic elements: (a) to assess the client and arrive at a conclusion regarding nature of the client needs, and (b) to then carry out the plan that rather automatically follows from the preceding conclusion. He emphasized that the professional possesses a basic repertoire of responses to client problems. Clients are generally expected to have needs that fit the professional's standard range of responses.

However, professionals working in an Adhocracy strive to adapt their services to individual client needs. This is the critical advantage of the Adhocracy to personal service organizations (Mintzberg, 1979). In the view of this author, it is also one of the most staunchly advocated values of the nursing profession, making pursuit of Adhocracy in health care vital to both nurses and all other

groups who advocate health services that are sensitive enough to meet individual client needs.

Adhocracies can be formed in the health care setting by the operating core and support staff members, to address the needs of a specific patient population. The main coordinating mechanism is mutual adjustment. Other elements are organic structure, horizontal job specialization, selective decentralization of decision-making powers to the team from the larger organization, as well as continued ties of individual specialists to outside functional departments. The last condition signifies the evolution of large health care organizations to matrix structure (Mintzberg, 1979).

Some Predominant Characteristics of Health Care Institutions

First, most hospitals today have not progressed to matrix structure and utilize function to group personnel into departments (Ducanis & Golin, 1979). Although functional grouping is said to be associated with superior technical proficiency (Marquis, 1969, as cited in Knight, 1976), the structure introduces a number of problems that hamper organizational productivity. Because individuals become focused on their specialty, they become somewhat oblivious to the organization's overall scope of activity and its aggregate product. Preoccupation with how to

achieve one's job supersedes striving to assist the organization to meet its larger goals.

Another problem is the difficulty in determining or addressing functional sources of ineffectiveness and inefficiency. This is coupled with a tendency of functional departments to assign responsibility for general organizational failures to departments other than their own. The functional structure apparently breeds lack of willingness to accept responsibility for large scale problems (Mintzberg, 1979).

Furthermore, functional grouping of specialized workers does little to facilitate mutual adjustment. Unfortunately, mutual adjustment is the coordination technique that must be relied upon when the other methods of coordination produce less than satisfactory results. With the failure to utilize mutual adjustment effectively, problems of coordination tend to be referred to persons at higher levels of the organization who are probably too far away from the problems to address them effectively (Mintzberg, 1979).

Second, Professional Bureaucracy currently prevails as the organizational structure in hospitals (Mintzberg, 1979). However, it is important to note that the support staff are very likely to be structured like a Machine Bureaucracy, making use of assembly-line concepts of work

if at all possible. The so-called "team nursing" in which one nurse dispenses pills, another nurse gives all the enemas, and a nursing assistant gives all the bed baths might be likened to an almost assembly-line approach to patient care. Albeit, nursing leaders and scholars decry such an approach, but it continues to be practiced at a number of institutions.

The hospital is characterized by two parallel administrative hierarchies. One is very democratic in the sense that intervening levels between top and bottom are few or none. Those professionals at the bottom have the most influence and anyone above them in the structure functions largely to meet their needs. The relationship of the medical staff to the hospital board of trustees is the perfect example of this. The other structure concentrates decision-making and resource allocation power at the top of the hierarchy. Much emphasis is placed on compliance with bureaucratic regulation. It is obvious that in the Professional Bureaucracy of the hospital, nurses are firmly under the jurisdiction of the second hierarchy. The two structures only become linked at the very top of the organization, termed the strategic apex by Mintzberg (1979).

Since nurses come into the hospital with a professional background that has instilled service values,

it becomes a challenge to comply with the extensive regulations handed down by the large bureaucracy above them. Ultimately, conflict results for the nurses, nursing units, and for the other professionals and departments (Blau, 1967-1968; Mintzberg, 1979). Some effort has been made to reduce the weight of the bureaucracy above the nursing unit in hospitals, but this change has yet to be implemented in a number of institutions.

Professional Bureaucracy is the preferred organizational structure for a number of professionals. The reasons are instructive. Being grouped together in functional departments, they can learn from each other and acquire greater skill in performing their professional tasks. Mintzberg (1979) also pointed out that most professionals prefer to be evaluated by someone who is equally well educated in the same field. He claimed the individuals within such departments also find greater interpersonal rapport with colleagues of the same discipline. He speculated that not only does similar work lead to similar thought patterns, but that likenesses in personality led those individuals to make similar career selections.

As the members of functionally-designated departments continue to cling to each others' company, various units begin to develop their own unique cultures dictating goals,

time perspectives, interactive styles, and management methods (Lawrence & Lorsch, 1967). Inward focus becomes the norm. With members of different units now focusing most of their communication within the unit, isolation results. Members of these groups "tend to band together psychologically and to treat others as 'outsiders'" (Mintzberg, 1979, p. 106).

Problems with Professional Bureaucracy

Professional workers present numerous problems to the hospital organization due to the organization's very limited powers to control them in a variety of ways. First, all professionals enter the work force having received substantial indoctrination in the educational setting regarding standards of practice, as well as professional prerogatives. Thus, the professional worker owes his or her allegiance to the profession, not to the employing institution. Entry into a profession, certification, and standards of practice are largely under the jurisdiction of the professional associations that govern those professions, not the employers. Nurses graduating from hospital schools of nursing are one notable exception to the picture painted above, but nurses prepared in such a manner are not professionals in the same sense of the word, anyway (Mintzberg, 1979).

Second, the only coordinating mechanism endorsed by professionals within a true Professional Bureaucracy is standardization of skills. This enables each individual to stake out a domain, with hopes of little interference from anyone else. If administrators should happen to endorse direct supervision, or if peers should seek mutual adjustment, those initiatives are actively resisted as incursions against the individual's professional autonomy (Mintzberg, 1979).

Other coordinating mechanisms are unworkable, as well. Because the work of all professionals is very complex, it is difficult to standardize the work in the same manner that Machine Bureaucracies would standardize the procedures used on an assembly line. The only other mechanism is standardization of output, meaning the creation of detailed specifications to which the final product must conform. This is not a realistic option, either, because the output of professional work remains too ill-defined (Mintzberg, 1979).

Professionals tend to ignore the sequelae to the above conditions, one being poor coordination with the support staff. The typical response of professionals here is to give orders to the support staff and leave it at that. Unfortunately, the support staff becomes caught in

conflicting directives from the two parallel authority structures described earlier (Mintzberg, 1979).

Professional bureaucrats, if one may call them that, also assiduously ignore problems of coordination among themselves. These persons really have no formal ties except for the fact that they access the same resources, including the services of the support staff. When the professional bodies of knowledge were being subdivided for purposes of study at the educational level, no attempt was made to see if these divisions made any sense in terms of clinical practice. More often than not, clients have needs that extend beyond the scope of academic preparation of any one specialist. Ultimately, clients receive only partial treatment or fragmented care (Mintzberg, 1979).

As a third consideration, these same professionals also cherish their privileges regarding the right to exercise professional judgment. Reliance on professional discretion is desirable because complex matters comprise the substance of professional work. However, they are sometimes loathe to challenge the discretion of another professional because they do not wish to be open to challenge themselves. Thus, professionals who are either incompetent or unscrupulous remain largely unchecked. Some of the abuses that are not blatant enough to draw censure include continuing to practice in an obsolete manner,

basing treatment decisions on their capacity to generate a higher income, and endorsing treatments that the professional best likes to provide, regardless of client need (Mintzberg, 1979).

A fourth matter of concern is the very limited capacity of professionals within the Professional Bureaucracy to engage in innovation. According to Mintzberg (1979), thinking is directed toward perfection of existing methods rather than creation of something new. The Professional Bureaucracy is structured to keep disciplines apart, thus limiting access to new knowledge, which renders it unable to spawn that which is truly original.

Sometimes direct supervision, standardization of work processes, and standardization of outputs have been imposed on professionals. Mintzberg (1979) claimed that these technocratic controls merely serve to make matters worse. Both responsible and irresponsible behavior begin to decline, making professionals less enthusiastic and less conscientious in their work. Client care becomes perfunctory and ineffective. Professionals no longer strive to perfect their services, and any inspiration to innovate will die out.

One wonders if this is not what happens to the professional nurse who after long years of service in a

controlling, bureaucratic hospital environment loses interest in the clients and his or her profession.

Mintzberg (1979) mentioned nurses rarely in his discussion, but he did identify physicians as members of a Professional Bureaucracy that fails to treat the human "body as an integrated system; rather they treat clogged arteries, or emotional stress, or unhealthy diets" (p. 73).

Health Care Institutions as Reluctant Adhocracies

Obviously, the incentives to look to other forms of organizational structure are great. On the face of things, Adhocracy and its corollary, matrix structure, would seem to be a most appealing alternative to Professional Bureaucracy. However, Adhocracy has been embraced by health care institutions with reluctance.

Mintzberg (1979) described the general hospital as clinging to Professional Bureaucracy as long as its technical systems remain relatively simple, and changing to a hybrid structure of part Professional Bureaucracy and part Adhocracy only where sophisticated equipment is used. For example, where nurses have the greater knowledge regarding use of sophisticated life support machinery, they are more likely to be treated as colleagues rather than support staff by the physicians. Mintzberg depicted the university hospital with research functions as being a little more open to Adhocracy. Where research is

encouraged, so is innovation. University hospitals also operate under more dynamic conditions, which necessitate reliance on mutual adjustment. However, the actual and alleged concerns for patient safety in hospital settings tend to negate forces driving them toward full utilization of Adhocracy.

Shaw (1986) found that even when adhocracy-type task groups were effective in achieving their assigned goals, high level administrators and persons in functional departments were uneasy about the situation. He explained that the conditions which allow task groups to flourish also permit the formation of sub-groups with sufficient influence to spawn new organizational ideologies. Those in power know that they could find themselves unseated.

Support staff prove to be the leading advocates of moving the organization toward Adhocracy. However, the rest of the organization must be willing to relinquish power to them and permit them to engage in extensive coordination between themselves and all other groups through mutual adjustment. Other members of the organization must be willing to recognize the expertise of the support staff, and in some cases the organization must be willing to hire additional experts to serve among the support staff (Mintzberg, 1979).

Even the staunchest advocates of Adhocracy find they must contend with some unpalatable new conditions when given the opportunity to function as members of an Adhocracy. First, many more meetings have to be conducted because the need for communication increases so much. Time that would have once been spent completing some task is now spent in talking about the tasks to be done (Knight, 1976). Working relationships also require well-honed interpersonal skills, qualities that are unevenly distributed throughout any collection of individuals (Mintzberg, 1979).

Confusion and ambiguity are typical conditions in adhocracies. Lack of definition in terms of responsibility and authority accruing to each position, shifting relationships with other workers and groups, as well as unorganized lines of communication between persons and groups strip away the individual's sense of security and stability (Reeser, 1969). The organization becomes a breeding ground for aggression and conflict, and the strategic apex must be prepared to find ways to direct that energy toward constructive ends. The administration must recognize its vital role in monitoring the state of working relationships and the productivity of the groups involved (Mintzberg, 1979).

The individual may find that he or she pays a high price for the opportunity to work in an Adhocracy. Usually

a strong individualist, the professional must nonetheless place the requirements of the group above his or her own goals and professional precepts. Role conflict is likely to occur when the individual reports to more than one department. Role ambiguity stems from lack of clarity in the job specifications. Role overload occurs if the individual becomes the recipient of too many demands (Knight, 1976).

Adhocracy proves to be much less efficient than bureaucracy in the decision-making phases. However, once the Adhocracy garners wide support for its projects and policies, implementation occurs much more readily than it ever would in a bureaucracy where resistance is common (Mintzberg, 1979).

Finally, structural change in large organizations tends to occur long after new conditions have arrived which dictate that the change be made. Resistance to adaptation stems from the profound reordering that must occur in the customary patterns of behavior throughout the entire organization. When genuine change comes, it is always wrenching. Mintzberg (1979) endorsed relatively rapid and complete restructuring of organizations when it came time to adapt to new conditions. Kolodny (1979), however, spoke of evolution to matrix structure often taking years. He

acknowledged that the process could be hastened, but cautioned that if formal training and development programs were not utilized, the evolutionary progress would be stunted, for old interactive styles would resurface and halt further development (Argyris, 1967).

This is not to say that hybrid organizational forms, alluded to earlier, do not form and stabilize (Mintzberg, 1979). But the Professional Bureaucracy with one or more adhocracies embedded within it must be prepared to deal with those units on different terms, and it must refrain from exerting its standard pressures on those particular workers if it wants those groups to be productive.

Forces Driving Health Care Institutions Toward Matrix Structure

In spite of all that has just been said about the negative aspects of Adhocracy and matrix structure, or difficulties in installing and maintaining those structures, hospitals may have no real choice but to adopt those models. Mintzberg (1979) described four environmental aspects which influence organizational structure. They are labeled complexity, stability, hostility, and market diversity. Based on the current environment of health care institutions, Adhocracy and matrix structure may be the organizational forms of the future.

Complexity of environment refers to how easy it is to comprehend the organization's work. Hospitals have always had complex environments because the work is difficult to comprehend. The adaptation that occurs in response to complexity is vertical decentralization, and Mintzberg (1979) regarded this as an established feature of hospital professional bureaucracies. However, it may be a more universal feature for the physicians in the operating core than for the allied professionals in the support staff.

Mintzberg (1979) pointed out that the coordinating mechanism of Professional Bureaucracy, standardization of skills, only works as long as the interdependencies between professionals are minimal. In the complex world of modern health care, one must question whether hospitals can continue to function as Professional Bureaucracies. As specialized expertise from a variety of sources becomes increasingly critical to successful outcomes, the operating core must look horizontally to the support staff for that knowledge. With increased expertise of a vital nature among the support staff comes increased authority for those professionals. In essence, the result is horizontal decentralization in addition to vertical decentralization. Now the stage is set for the beginnings of Adhocracy.

Stability of environment refers to how much variation occurs in the work that confronts the organization. A

dynamic environment means substantial unexpected and unpredictable change in the nature and quantity of work. Hostility of environment means the organization faces increased difficulties in marshalling the various inputs necessary to maintain its open system. In other words, a high rate of labor turnover (among nurses, at least), loss of customers to competitors, and diminished financial support from the government are examples of conditions that make the current environment for hospital organizations a hostile one. The overall effect of this hostility is to make the work more unpredictable. Thus, hostility contributes to a dynamic environment for hospital organizations (Mintzberg, 1979).

Mintzberg actually described the hospital environment as a stable one, but it must be remembered that he published his work in 1979, prior to many changes in the health care field. He went on to characterize the organization functioning in a complex and dynamic environment as requiring an organic structure that incorporates decentralization and mutual adjustment as operating mechanisms. He added that a dynamic environment would force an organization in the direction of organic structure, in spite of large size, which is a countervailing force. In such a setting Adhocracy must become the style of interaction for workers. This author

believes these premises all point to Adhocracy as the most desirable organizational style for hospitals.

The last environmental aspect described by Mintzberg (1979) is market diversity. He regarded the hospital as having a diversified market. Surprisingly, he described all organizations with diversified markets as having departmental groupings based along product lines. This is in contrast to the functional groupings commonly seen in hospitals (Ducanis & Golin, 1979). Nonetheless, product-line management has become a recent catch-word in the hospital management literature (Droste, 1988). If implemented in its truest theoretical sense, the organizational units demanding greatest allegiance of workers would become the multidisciplinary health care teams that provide cardiac rehabilitation, diabetes care, or chronic pain management, to name a few examples, rather than the departments of nursing, pharmacy, or social work from which the individual members are drawn.

Adhocracy has staunch proponents in the support staff of any organization. By nature they seek collaboration and innovation in decision-making. They prefer coordination by mutual adjustment. The strength of this preference creates an inexorable tension within the organization, constantly pulling it toward organic structure (Mintzberg, 1979).

Although the countervailing forces may seem overwhelming, matrix structure need not pose insurmountable problems for administrators and other persons within it. N. H. Wright (1979) recommended "a matrix indoctrination program" (p. 61) to overcome the interdepartmental and interpersonal problems that will arise. Ducanis and Golin (1979) stated that such a system can work if every group within the organization will "deal openly and creatively with conflict" (p. 87).

The Individual in the Organic System

S. Burns and Stalker (1961) began to examine the role of the individual professional in the organic system long before Mintzberg published his comprehensive treatise on organizational structure. Their study was conducted in England, but their observations still seem to be very pertinent to the American worker today. They used the techniques of field sociology and social anthropology, namely observation and conversation with subjects, to form their impressions.

S. Burns and Stalker (1961) used the term mechanistic system to describe traditional bureaucracies. They may have coined the term "organic" system. Mintzberg (1979) adopted their definition of "organic" for his term, organic structure.

S. Burns and Stalker (1961) portrayed individuals much as Mintzberg later chose to do. The workers in the organic system often felt uneasy and anxious. They wondered about their role as well as those of others. S. Burns and Stalker provided more detail, however, regarding the responses that occur when confusion is not dealt with openly by the organization. In fact, they advocated that attention be given to open discussion of the nature of the work situation and the psychological impact of that work.

Yearning for a return to a mechanistic system was found to be a frequent response to life in an organic-type work place. The standard litany of complaints regarding ill-defined jobs, responsibilities, and authority were much in evidence. S. Burns and Stalker (1961) described the appeal of the mechanistic system as follows:

When individuals are frustrated in their attempts to get their own work successfully completed, when they are worried by the successful rivalry of others, when they feel insecure or under attack--these situations provoke an urge for the clarity, the no-nonsense atmosphere, of a mechanistic organization. It promises so many other dividends too. It is not only quicker to divide tasks into parcels, label them 'responsibilities', and post them to subordinates or other parts of the structure; this kind of procedure has the connotations of visibly controlling others, and the appearance of knowing one's own mind, which are valued aspects of executive authority. Conversely, one has the security of unquestioned power through orders to subordinates, the security of knowing the limits of one's responsibility and of the demands and orders of superiors, which the existence of something like the Queen's Regulations can give (p. 252).

Some of the destructive individual responses to anxiety experienced in the organic structure included disparaging others in an attempt to reduce the others' self-confidence and prestige. Some persons became preoccupied with power and status issues because those issues were more readily understood than the organization itself with its expanded number of problems, vast quantities of information, and multiple working relationships. Some persons ultimately sought to retrench by claiming special status which would exempt them from having to interact as the organic system demanded, or in some other manner tried to gain more control over their own job situations within the organic system.

S. Burns and Stalker (1961) put special emphasis on describing communication within the organic system. They explained that facilitating the increase in communication meant more than just special attention to notifying workers of decisions made elsewhere or allowing exchange of information and opinions at group conferences. The critical need became the removal of barriers between co-workers that would have traditionally led them to hesitate to ask each other for information, suggestions, or assistance. This required suppression of status differences, including differences based on technical

prestige, whenever members engaged in collaboration in the work setting. Likewise, "barriers . . . founded on functional preserves, privilege, or personal reserve" (p. 252) had to be demolished. S. Burns and Stalker cited the ability to present one's requests in a droll and humorous fashion to be of enormous value in bridging and removing status barriers.

Another facet of membership in the organic system was found to be a dissipation of all limits of what it is possible to demand of a given individual. Persons felt a sense of commitment to the organization as a whole, not just to practicing their own special skills. They had a sense of wholesale obligation in any and all tasks that presented themselves to the organization. Many made this commitment enthusiastically, but as a result their occupational activities gained a dominant position in their lives. As S. Burns and Stalker (1961) stated it, there was "a greater subjection of the intellectual, emotional, and moral content of the individual's life to the ends presented by the working organizations of the society" (p. 11). In summary, organic systems present workers with an opportunity for excitement, challenge, and creativity in their work, but they also have the capacity to exhaust and harm workers, as well.

Status of Multidisciplinary Teams in Health Care

This author accepts the premise that the concept of the multidisciplinary health care team represents Adhocracy in the health care setting. At this juncture, the predictions regarding attitudes, behaviors, experiences and problems of workers in Adhocracy and Professional Bureaucracy will be compared to the observations reported in the literature on multidisciplinary teams. This literature has been found to consist of three broad types--opinion, description, and research (Halstead, 1976). For the most part, each form will be addressed separately in that sequence. Some survey results will be incorporated into the second section.

Opinions Regarding the Value of the Team Approach

The literature is filled with glowing endorsements for multidisciplinary team practice. This message seems to appear in the literature of almost every discipline. Mowry and Korpman (1987), a registered nurse and medical doctor (MD), respectively, flatly stated, "A team approach is necessary at every level of institutional practice" (p. 22). The American Nurses' Association in its 1985 Code for Nurses with Interpretive Statements pronounced:

The complexity of health care delivery systems requires a multidisciplinary approach to delivery of services that has the strong support and active

participation of all the health professions. Nurses should actively promote the collaborative planning required to ensure the availability and accessibility of high quality health services to all persons whose health needs are unmet (p. 16).

Brockhaus and Richardson (1986) claimed team conferences should be a routine feature of multidisciplinary care. A. H. Kennedy (1986) called for the primary nurse to be included in all multidisciplinary patient care conferences, owing to the nurse's detailed knowledge of the patient.

Team care has been recommended for a variety of reasons. One of the most commonly cited rationales is that marked expansion of the knowledge base pertaining to health care and increased use of sophisticated technology have forced every practitioner to become a specialist. This has, in turn, led to fragmentation of care which can only be counteracted through the use of extensive communication and coordination between providers. It is claimed that the patient deserves to be viewed and treated holistically by the health care team (Ducanis & Golin, 1979; England, 1986; Nagi, 1975). Improved patient outcomes have been predicted (England, 1986). Ducanis & Golin (1979) thought the team approach would stave off further instances of patients being discharged prematurely, which implied something of a patient advocate's role for the team.

Nagi (1975) brought forth the idea that there is now "a recognition that health concerns can be addressed with

greater effectiveness when considered within the context of other problems" (p. 76). By implication, the definition of health and health care has been enlarged, supporting the idea that comprehensive health care is more than one specialist can provide (Richardson, 1986). One of the earlier reasons for endorsing multidisciplinary care was to free overburdened physicians from some of their duties (Nagi, 1975). Cape (1986) indicated that physicians could not hope to keep abreast of new knowledge and methods while maintaining heavy caseloads.

Another argument in favor of team care states that because the various disciplines previously had little opportunity to gain an understanding of the others' purposes and methods in providing treatment (Richardson, 1986), efforts were sometimes conflicting or redundant. England (1986) also thought that multidisciplinary care should ultimately reduce costs. Toseland, Palmer-Ganeles and Chapman (1986) expounded on the capacity of teamwork to potentiate the efforts of individuals, leading them to creative heights which they would not have achieved if they had been working alone.

Some commentators indicated direct benefits for the health care providers themselves. T. M. Brown (1982) pointed to egalitarianism through teamwork as an end in itself, implying greater job satisfaction for allied health

personnel. Several authors mentioned the team as a support system for health care workers under stress (Faulkner, 1985; McDonald, 1984/1985; Rabkin, 1976). Faulkner also thought the team would be better able to respond to ethical issues than would any one professional alone.

Numerous persons offered general prescriptions for what a multidisciplinary team should be like. One of the broader definitions spoke of teams which either provide direct care or consultation, making sure they are "more than a panel of experts consulting side by side, without synthesis and without pressure for producing an interdisciplinary study, assessment and intervention plan" (Faulkner, 1985, p. 35). The same source called for free communication between all members, assignment of tasks on the basis of merit rather than status, and collective responsibility for team decisions.

Criticisms of the team concept also abound. Individuals assigned to a team may not actually engage in genuine teamwork (Bernard & Ishiyama, 1960). McDonald (1984/1985) pointed out that the arguments in favor of multidisciplinary teams are merely untested assumptions.

Godfrey (1981) challenged the team concept on the basis of creating a new type of functional redundancy, particularly in the area of patient assessment. A lot of

team members may collect the same data on a patient. Rubin and Beckhard (1972) were concerned about the possible inappropriate reliance on consensus in making team decisions. Not every member is qualified to have an opinion on every issue. They argued that teams might better assign responsibility for selected decisions to the member most qualified to address the matter in question, taking care to consult those members with overlapping expertise, and merely informing the remainder of members regarding what actual decisions had been made. They cautioned that forcing apparent consensus in team conferences would often result in low levels of commitment to decisions by persons whose opinions did not win out. Werner and Gibbs (1987) expressed an opinion that team members fall prey to fallacious thinking more readily in a team conference setting.

Another group of critics contended that the team approach merely serves as a forum for meeting the needs of the members, not the patients. Nagi (1975) thought members might fall prey to the temptation to construct their assessments of client needs in such a way that the interventions of their own particular discipline would always be required, thus enhancing the status of their profession in the eyes of the group. Godfrey (1981) reiterated that sentiment when he claimed that teamwork was

self-aggrandizing. Team conferences could also become just "a forum of professional prejudice and jealousy" (Furnham, Pendleton & Manicom, 1981, p. 297). T. M. Brown (1982) thought the team approach might be used by physicians as a way of merely avoiding those tasks which they found most distasteful.

Rae-Grant and Marcuse (1968) feared that the team would become an end in itself. They also spoke of the capacity of teamwork to drain away emotional energy. This concern appears justified in light of the predictions made by Mintzberg (1979) and the reports of S. Burns and Stalker (1961) regarding work in the organic-type organization.

Other reservations about multidisciplinary team health care address potential ethical problems. McDonald (1984/1985) identified the absence of a unified code of ethics as potentially troublesome. He also wondered if team care would result in more frequent loss of confidentiality regarding patient records, although many disciplines have access to patient charts whether they are collaborating as a team or not. Rae-Grant and Marcuse (1968) worried about the diffusion of responsibility among team members. Such a condition might result in poor or mediocre patient care. McDonald (1984/1985) responded by pointing out the possibility that all members might feel greater responsibility as a result of teamwork. This

latter sense of responsibility is what Adhocracy theoretically calls for (Mintzberg, 1979).

Ducanis and Golin (1979) lamented the fact that too often teams are negatively judged just because of difficulties with one aspect of team care, and then the team concept is prematurely abandoned. Certainly, the team approach is no panacea. Effective teamwork possesses its own problems and demands its own unique solutions.

Descriptions of Practicing Health Care Teams

Basic descriptions of teams and teamwork. Apparently the health care team concept arose around 1910 as the field of medicine began to enter into specialization. During the following two decades the addition of allied health professionals became especially pronounced in the field of mental health (T. M. Brown, 1982). Nurses gained a foothold in mental health teamwork during and after World War II when federally funded mental health training programs designated the psychiatric nurse as one of four disciplines eligible for participation (Benfer, 1980). Multidisciplinary teams have also been well established components of physical rehabilitation programs for a number of years (Halstead, 1976; Horwitz, 1969).

Now teams can be found practicing in a variety of specialty areas. For example, teams are now functioning in

geriatrics (Newman & Boissoneau, 1987), nutritional support (Jamieson & Rongren, 1988), hospice services (Kulys & M. A. Davis, 1987), family health care in the ambulatory setting (T. M. Brown, 1982), AIDS (acquired immunodeficiency syndrome) care (Boughey, Catalano, Dumont & Hanus, 1986), and for a variety of other disease conditions under the titles of "DRG [diagnosis-related group] product teams" (Edwardson, 1986, p. 265).

Little information appears to be available about the number of teams in existence. In 1974, Wise, Rubin, and Beckard wrote that team practice in hospitals was unusual. Lack of widespread utilization in the health care delivery system continued to be reported in 1981 by Snyder. Bloom and Parad (1976) surveyed 1464 mental health professionals and workers in 13 western states regarding the presence or absence of multidisciplinary practice at their work sites. . . A large majority, 87%, indicated they were involved in teamwork, with 73% reporting the use of formally identified teams within their facility, and 85% reporting that regular team meetings were held. The number of existing nutritional support teams has been reported as 831 in the United States (Ross Laboratories, 1984), indicating presence in at least 8.6% of all hospitals (Ross Laboratories, 1983, as cited in Shrouts & Cataldi-Betcher, 1986).

Teams may vary in their underlying reasons for existence. Legislation, government regulations, and third-party payer requirements may dictate that a multidisciplinary team be established for delivering certain types of care (Ducanis & Golin, 1979). Galasso (1987) explained that psychiatric units can remain exempt from the Medicare prospective payment system if they maintain documentation of comprehensive individual treatment plans formulated by a multidisciplinary team. Obviously, the prospect of more generous financial remuneration under the former Medicare regulations would serve as a powerful incentive to team formation.

The activities of a team may vary considerably. Common features of many teams include conducting team conferences, on a regular or irregular basis. Many members continue to carry out duties customarily associated with their own discipline, such as gathering specific types of information and obtaining pertinent measurements, followed by interpretation. This is then shared with the rest of the team through an oral report, and sometimes supplemented by written documentation. Where professional roles overlap, data collection and interpretation tends to be similar (Ducanis & Golin, 1979).

Exploration of alternative treatment approaches may be a feature of team conferences, but is not a given component

of teamwork. Communication channels may be maximal or few. For instance, in some teams the leader calls on each member sequentially, asks for a verbal report which may or may not be followed by questions addressed to the team member, and seldom permits any discussion between the members themselves. The opposite condition in which each person speaks freely to other members or to the entire group, and in no particular order, is also seen. The latter occurs more frequently when the group maintains an informal, relaxed atmosphere. Those circumstances sometimes lead to more irrelevant discussion, however (Ducanis & Golin, 1979).

Leadership is usually awarded by the larger organization on the basis of job title or professional qualifications. Although informal leaders may emerge, especially in regard to socioemotional aspects of team interaction, the formal leader is usually seen as legitimate by the other members. Membership may be stable or fluctuating. Sometimes leaders or members serve the team only periodically, as on a rotation basis (Ducanis & Golin, 1979).

Task-orientation generally prevails. Often teams do not reassess broad team goals, but focus on the individual patients and their treatments. Issues to be addressed usually fall into the categories of coordination and

problem-solving. Decision-making styles are quite variable, ranging from consensus or majority vote as a predominant method of making decisions to delegation of decision-making to specific individuals or allowing a decision to be made by default, as in refusing to make an active decision (Ducanis & Golin, 1979; Rubin & Beckhard, 1972). Sometimes the elimination of options by the team is more implicit than explicit, with selected members subtly shaping the direction of the decision-making process or quietly assuming the right to make a choice on the basis of tradition and legal responsibility. Some groups deal with disagreement openly, while other assiduously try to suppress any evidence of conflict (Rubin & Beckhard, 1972). Once decisions are made, most members typically provide their services to the clients on an individual basis (Ducanis & Golin, 1979).

Individual differences make for dissension and discord. Many factors affect the capacity of a group of individuals concerned with a mutual task to pursue and achieve the overriding goals. A large number of those factors are characteristics of the individuals themselves, which they bring to the group from the outset. An explication of individual characteristics is included here, to enable better understanding of the barriers to effective multidisciplinary team care.

Professionals enter into teamwork with either decided or imprecise perceptions about the body of knowledge that comprises their domain, and from those perceptions stem role expectations and beliefs about what they should be doing as individuals for patients served by the team. The matter of boundaries between the domain of one professional and another can quickly become a concern, because it is very likely that those domains will overlap. This leads to role ambiguity and the tensions that occur when there is uncertainty about who should do what. Since professionals may have acquired a sense of entitlement to certain areas of practice, sharing a professional domain with another team member may be actively resisted. This becomes role conflict. However, team members are sometimes all too willing to ascribe knowledge and responsibilities to other members, even though those other members do not claim such expertise. The recipients may make an effort to rise to new expectations, but if unable to achieve them they suffer role overload (Brockhaus & Richardson, 1986; Ducanis & Golin, 1979; Horwitz, 1969; Nagi, 1975).

The root of the problem is incongruence between individuals' perceptions regarding their own capabilities and the capabilities of others, and their imagined perceptions of how the others regard the professional role of both self and others (Horwitz, 1969). What is

particularly troublesome is that members may imagine that everyone in the group holds congruent perceptions of each other, when in fact they do not (Brockhaus & Richardson, 1986).

Unfortunately, these differences in perception are not easily resolved because of various barriers. First, communication is imperfect for a variety of reasons. Second, if professional boundaries are readjusted, one or more persons will probably feel a threat to loss of status, and possibly even economic rewards (Nagi, 1975). Third, the group also faces a diffuse goal, a complex task for which there is a vast number of small tasks comprising the larger one, and an intricate process for analysis and decision-making. The complexity of the task results in a great deal of uncertainty. All these considerations make it difficult for anyone to assert an opinion unequivocally (Wise, Rubin & Beckard, 1974).

Educational background is often a basis for one or more of the barriers to collaborative work. Professional education socializes its students to value the "uniqueness and exclusiveness of a particular discipline" (Brill, 1979, p. 10). This is professional ethnocentrism, which leads each discipline to favor its own group and to disparage the others (Ducanis & Golin, 1979). Members of one group may

fail to acknowledge the competency of the others (New, 1986).

A narrowing of focus is inherent in specialization, and some professionals may have lost the ability to step outside the cognitive framework they have acquired and take an expansive view of matters (New, 1968). Likewise, professional education has rarely provided general knowledge on how to work effectively in multidisciplinary groups or information about the other disciplines that health care workers are likely to meet when employed (Brill, 1979).

Education also creates differences between disciplines in more mundane ways. Professional programs teach different terminology, work methods and theoretical orientations. Words acquire different connotations, so that persons from different disciplines may imagine that they have shared their ideas fully, when in fact each has a markedly different impression of the content of what was said (Ducanis & Golin, 1979).

Most team members are quite aware of differences in status and the implications those differences will probably have for them in terms of authority, influence and power (Nagi, 1975). Although members may acquire other forms of status with time, the public prestige attached to individual professions will continue to have an impact on

status relationships within the group. A given profession may reflect membership in a particular social class, which also confers high or low status. Traditionally, persons of greater wealth and social prestige entered medicine because they had the financial resources to sustain them through a long, expensive course of study. However, nursing and social work attracted persons of moderate means and lower social prestige because of lessened expenses and shorter educational programs (Ducanis & Golin, 1979). Professions may also vary in their legal prerogatives in delivering patient care, and this, too, may confer high or low status.

Sequelae to status differences include the style of group interaction, which can be termed hierarchical versus egalitarian or collegial (Feiger & Schmitt, 1979; Nagi, 1975). Another result of status differences is variation in the extent of role accommodation by group members. Generally, lower status members adjust their roles to accommodate the preferences of the higher status members (Nagi, 1975). Lynch (1981) mentioned that in working with physicians, many nurses and allied health professionals adopt an attitude of subordination.

Other differences between team members include differences in attitudes, values, goal preferences, and unstated assumptions. Stereotyping of others, and idealization of the physician may occur (Horwitz, 1969).

Members may hold stronger values for individualism, independence, and competition, than for cooperation and collaboration (Brill, 1979; Lynch, 1981). Goals can vary in terms of importance of providing services versus the importance of inquiry or research (Nagi, 1975). Individual members may also have unstated goals which remain hidden but influence their behavior on the team (Ducanis & Golin, 1979). The unstated assumptions, or implicit norms, may or may not be shared by all. Rubin and Beckhard (1972) itemized some examples as follows:

1. "In making a decision silence means consent;"
2. "Doctors are more important than the other team members;" "we don't disagree with them;" "we wait for them to lead;"
3. Conflict is dangerous, both task conflicts and the interpersonal disagreements; "it's best to leave sleeping dogs lie;"
4. Positive feelings, praise, support are not to be shared;--"we're all 'professionals' here to do a job."
5. The precision and exactness demanded by our task negate the opportunity to be flexible with respect to our own interpersonal group processes (p. 327).

Brill (1979) cited another example, that of members assuming everyone in the group would put team success ahead of meeting personal needs.

Team members may have significant differences in their motivation to help the team achieve success or to achieve individual success within the team. Ducanis and Golin

(1979) spoke of the potential difficulties in motivating a member whose ties to a functional department are strong, and who must rely on approval of a manager in that department for salary and promotions. Professionals are most inclined to make their greatest efforts in the areas where they are likely to be rewarded. Often the most tangible reward for successful multidisciplinary teamwork is the approbation of the other members.

Interest in team membership is very likely to be low when the professional views the team conferences as being a waste of his or her time, for whatever reasons. Size of the group can have an effect on this perception. For example, in large groups the most vociferous members dominate the discussion and the other members have fewer opportunities to interject their remarks (Hare, 1976). Another factor in member motivation is the sense that the current group experience is more rewarding than that experienced with some other group in the past (Thibault & Kelley, 1959).

Team members will possess a variety of personal characteristics that will influence their work as team members. Native intelligence is one. What may be termed personality type or style is another. For example, some members may be more risk-averse than others, and that may influence their need for information prior to making a

decision. Ducanis and Golin (1979) illustrated this point with an example of a nurse who said, "We should wait until next week when Dr. Smith comes in. Let's see what information he has before acting" (p. 115).

Some studies are available to confirm what has just been said about persons in multidisciplinary teams. Toseland and others (1986) employed questionnaires, interviews and observation to obtain information regarding 15 psychiatric teams in two large state hospitals. One or more nurses, mental health therapy aides and social workers comprised the core membership of almost all the groups. Other disciplines found on some teams were psychiatrists, psychologists, occupational therapists, physical therapists, and rehabilitation aides. Average team size was seven members. Sometimes individuals serving on the same team would differ in their statement regarding number of members, indicating some fluidity of group composition.

Ninety-five percent of the respondents said their team met regularly, at established times. Meetings averaged two hours and were held twice a week. All teams had designated leaders, 60% of whom were appointed and 40% of whom emerged from within the group membership. Planning individual patient care dictated the agenda for team meetings, although other issues such as general aspects of treatment programs, effects of the larger organization on those

programs, individual staff duties and assignment of caseload were also discussed. Formal agendas were utilized and planned at the end of each session in preparation for the next one. In 60% of the teams, the leader and members collaborated on agenda formation, while in the remaining 40% responsibility for setting the agenda was divided between members only or leader only. Members tended to dislike having the agenda planned by the leader alone (Toseland et al., 1986).

Psychiatric team members cited team roles as including those of client advocate, supporter of beleaguered colleague, consultant to a colleague having primary responsibility for a given patient, team coordinator, humorist, conflict diffuser, with frequency of use occurring in the order shown. Eighty-three percent of teams members said they had functioned as client advocates, while 49% claimed to have acted as conflict diffuser. Another reported role was observer. Other roles reported by social workers were negotiator, socioemotional leader and task leader (Toseland et al., 1986).

Role overlap was acknowledged by three-fourths of the respondents. The most common bases for role differentiation were professional domain, individual expertise, individual characteristics, and preference for particular roles. The group was quite mixed in its

opinions about importance of role differentiation. Fifty-three percent said there should be well defined roles, while 33% disagreed (Toseland et al., 1986).

Opinions about importance of egalitarianism among members were also mixed, and were unrelated to professional discipline, with 40% supporting the concept and 44% opposing it. Respondents were asked to rate the various disciplines according to degree of influence. Psychiatrists were seen as the most influential, followed by social workers, nurses, psychologists, mental health therapy aides, occupational therapists, recreational therapists, and physical therapists, in that order (Toseland et al., 1986).

Toseland and others (1986) inquired about team functioning and acquired the following information: 77% thought their team functioned well most of the time; approximately 6% thought their team rarely functioned effectively; 79% were satisfied with how they were treated as members of the team while 6% were dissatisfied; 93% preferred the team approach, but 3% wanted to work independently. Most teams used consensus to make decisions, but a third allowed the leader to make most decisions after consulting selected members. Voting was never used. Ninety percent of respondents agreed with most team decisions, and 83% claimed their opinions and

suggestions were considered by the group. Many persons, but not all, regarded conflict as being dealt with openly and effectively when it arose.

Approximately 73% of the subjects thought the teams did a better job than individuals could do, although respondents were a little less willing to agree with the statement that the teams were efficient. Multidisciplinary care plans were regarded as superior, but some members showed some doubt about how effective the teams were in implementing them (Toseland et al., 1986). Overall, information gleaned in this survey is helpful because it may serve as a standard of comparison, at least for psychiatric teams.

Kulys and M. A. Davis (1987) interviewed 92 persons employed by hospice organizations regarding the relative appropriateness of using social workers or nurses to perform 14 different professional tasks, many of which were considered social work tasks by the investigators. Subjects were hospice directors, nurses, social workers and volunteers. Nurses largely represented themselves as better qualified to carry out 9 of the 14 tasks, and over half of them asserted they were better able to address emotional problems. In contrast, half the social workers indicated they were better qualified to do 12 of the 14 items, and they unanimously regarded themselves as being

the best suited to deal with emotional problems. Obviously, overlapping of role perceptions for nurses and social workers in hospice settings is extreme.

Furnham and others (1981) used a questionnaire to survey a variety of health professionals in England regarding their perceptions of other occupational groups. All were asked to rank themselves and the other professional groups on the following scales: approachable versus non-approachable, highly trained versus little trained, skillful versus non-skillful, radical versus conservative, powerful versus non-powerful, accessible versus non-accessible, essential versus non-essential, highly paid versus badly paid, sympathetic versus non-sympathetic, and high status versus low status. Almost all groups saw themselves in a more favorable light than they did others.

Ducanis and Golin (1979) developed an Interprofessional Perception Scale in which the respondents were asked to rate themselves on a number of statements, as well as indicating what they imagined other health professionals would say about the rater's own profession and what the other professionals would have guessed to be the rater's self-rating. The pilot study used only 29 allied health professionals, and no nurses or physicians, as respondents.

The allied health professionals reported perceived disagreements with nurses and physicians on perceptions regarding capabilities, encroachment on professional territory, being defensive about professional prerogatives, and underutilization of other professionals. Specifically, only 13.8% of allied health professionals felt their capabilities were understood by nurses. A smaller number felt their functions and abilities were understood by physicians. Only small percentages of the subjects felt their services were fully utilized by doctors and nurses. Nor did the allied health professionals feel that doctors and nurses would guess that this is what allied professionals said. They imagined that nurses and physicians would say they knew a great deal about the work of the allied professionals and utilized them fully (Ducanis & Golin, 1979).

A subsequent study used 115 respondents, including nurses. The researchers found that nurses present themselves as thinking they are more competent than they are thought to be by others. Further, the study revealed that nurses are thought to underestimate the doubts held by others about them (Ducanis & Golin, 1979).

Bloom and Parad (1976) investigated the preferences for interdisciplinary and egalitarian functioning among mental health professionals and workers in the survey

described earlier. Nurses and other mental health workers were most interested in interdisciplinary work and egalitarian relationships. Psychiatrists and psychologists were less enthused about interdisciplinary work, and they reported a great deal less interest in egalitarian working relationships.

The Veterans Administration conducted a survey of health professionals working in geriatric assessment teams in their facilities. Subjects were asked to provide ratings indicating their perceptions of the team's capacity to function and any other pertinent information. The results showed team members felt torn between team and departmental responsibilities. Some said supervisors and departmental co-workers were scornful of either the team approach or geriatric specialization, resulting in additional departmental responsibilities being assigned to the geriatric team member. Others said they had gained additional respect in their departments as a result of being a geriatric team member. The latter group reported a higher level of effort in advising persons in their department on the nature of team activities and of their roles on the team (Newman & Boissoneau, 1987).

Team interactions: descriptions of specific teams.

Some descriptive reports reveal systematic effort to document the interactions among persons on a team, while

others are merely incidental anecdotes that illustrate an isolated point. Farrell, Heinemann and Schmitt's (1986) study of multidisciplinary health care teams in three health care institutions falls into the former category, and is an example of true qualitative research. The investigators videotaped over 30 team meetings, observed 10 meetings, accompanied team members on 4 field trips, and interviewed more than 20 members as either individuals or in a group.

Farrell and others (1986) worked on the assumption that the expressive behavior and task-related efforts were in some way interrelated. Expressive behaviors included informal roles, rituals, and use of humor during team meetings. Rituals were defined as group activities that did not have any bearing on task accomplishment, but served to either generate positive feelings or limit negative emotions in the group. The investigators examined expressive roles within the groups, and used the variations in these roles over time to document passage of the groups through four stages of group development. They reminded the reader that the bulk of team activity was task-related, however.

In the first stage called "Testing and Dependency" the informal roles were titled Helpers, Tyrant, Superman or Wonderwoman, Party Host or Hostess, and Reluctant

Candidate. Tyrant was defined as someone who managed group activities in a very directive manner, demanding conformity and warning potentially deviant members that some vague or specific punishment might be in store for them if they did not comply. Superman or Wonderwoman set the pace for work output, making efforts that inspired emulation on the part of other members. Party Host or Hostess brought refreshments, found humor in a number of interactions, and gave special attention to others' needs. The Reluctant Candidate tried to avoid team meetings, but ultimately consented to attend. The Reluctant Candidate functioned as a decision-maker for an otherwise dependent group. Helpers aligned themselves with the leader and offered assistance to that person in a variety of ways, such as explaining and defending leader actions to the other members (Farrell et al., 1986).

The position of Tyrant was sometimes taken by a head nurse, but was more often filled by a physician. Although the investigators first imagined the actions of Tyrant to be distasteful to the teams, they finally concluded that the teams encouraged the behavior. When the actor sought to abandon the role he or she discovered the group to be resistant to engaging in more work and continuing to depend on the Tyrant to organize their efforts. Leaders sometimes vacillated between Tyrant, Superperson, or Party Host,

although physician leaders almost never behaved as Party Hosts (Farrell et al., 1986).

The "Testing and Dependency" stage was characterized by focus on the leader, with little sense of cohesion among members themselves. Members were very conscious of their relationship with the leader, however. Members addressed the bulk of their remarks to that person, and gave little attention to addressing their other colleagues (Farrell et al., 1986).

A gradual evolution occurred as members mastered the necessary routines to succeed in their individual tasks. Farrell and others (1986) characterized it as passive and unorganized resistance. People arrived late or not at all. Members seemed overcome with lethargy. Members felt no sense of responsibility for group culture because the leader determined all aspects of group life.

Any new members on the team received no socialization regarding group norms and values. Or if they did, they were told what level of non-participation they could probably get away with. It was socialization into "an underground culture of resistance" (Farrell et al., 1986, p. 149). A new role might emerge called Scapegoat, and the morale of that member might decline sufficiently to affect his or her performance.

The Scapegoat might resort to initiating eating rituals at the meetings, bringing doughnuts or brownies, for example. Farrell and others (1986) found the food rituals to be a distraction at this particular stage of the group, as persons with a mouth full of food could not interject remarks at the necessary times.

What joking took place addressed one of three themes. One acknowledged the exercise of authority, and it took the form of joking to ameliorate the impact of having just given an order, or using humor to express dissatisfaction with the leader's directive. Telling about the outrageous behaviors of patients was another popular form of entertainment, particularly when exaggeration could be added. There was also black humor focused on the frustrations of working in a large organization or on the hopelessness presented by some of the patients (Farrell et al., 1986).

"Conflict" was the title assigned the second stage of group development. Competition for dominance in the group was a central theme. Some members became preoccupied with establishing respect for their profession. Ultimately, the group became polarized into two groups, those who supported and those who opposed the leader (Farrell et al., 1986).

A new informal role called Hatchetman emerged. This person would function as a conduit for negative feedback from the group to the leader. Other members welcomed this role as they were able to use it to shield themselves from the potential recriminations of the leader. Stage two was a time for increased isolation for Scapegoat, and he or she sometimes became the target of attacks from Hatchetman (Farrell et al., 1986).

Nice Guy also emerged as a role, interacting in a positive way with everyone in the group and frequently serving as a listener for aggrieved members. Clown entered the group, too. This role was appropriated by a well-liked member who could dispel tension with a timely quip. Not all members could acquire the skill, and in the absence of Clown the team meetings were a dreary occasion. Farrell and others (1986) were puzzled about the fact that Clown was always played by a male member.

The salient event of the "Conflict" stage was an emotionally charged confrontation in which almost all members aligned themselves in opposition to the leader. It signified cohesion of the group and readiness to abandon former dependency (Farrell et al., 1986).

Farrell and others (1986) alluded to the fact that the body of existing group literature reports a regression of some groups to dependency after conflict, whereas others

progress to mutual feelings of goodwill. Ultimately the groups in this study entered the third stage, called "Cohesion and Consensus". Consensually derived norms and roles were formed, influencing both members and leader.

The teams described here gained a collective identity known as Coalition of Colleagues. Authority was based on past demonstrations of competence. The former leader was a member of the coalition and did not display dominance. Decision-making occurred through consensus or by deferring the matter to the person best qualified to make a decision. Good feelings ran high enough to inspire one team to throw a party for all other teams in the hospital. Jokes at this stage included the whole team. Self-disparaging jokes or similar jokes directed at the team itself were accepted, interpreted by Farrell and others (1986) to mean that members could now laugh at themselves.

A final fourth stage was described under the heading of "Functional Role Relatedness". Members finally did renegotiate professional boundaries. Persons with demonstrated competence outside their designated realm were allowed to acquire additional functions, relieving an overworked colleague in another discipline. Roles were described as Coalition of Colleagues, with an occasional reappearance of Clown. If Hatchetman, Scapegoat, and Nice Guy reappeared the team refrained from reinforcing those

roles. Hatchetman was told to let others plead their own cases. Any source of tension that might have once been displaced onto Scapegoat was identified for what it was, and then dealt with promptly. Nice Guy became superfluous (Farrell et al., 1986).

For the first time in the groups' history, meetings to assess team functioning were regarded as productive. Humor continued to resemble that of the previous stage. If arcane jokes were told, the jokes were explained to any guests present (Farrell et al., 1986).

Farrell and others (1986) found that only one group in their study could progress to stage four independently. Some other teams eventually arrived, but only after seeking outside consultation. The investigators concluded that the heterogeneity of persons on multidisciplinary health care teams make group development difficult. They cited most of the characteristics discussed in the previous section as factors. Farrell and others' work with health care teams appears to be unique in the body of research on small groups. No other investigators have created such salient images in reporting behaviors of persons engaged in multidisciplinary health care.

Benfer (1980), a psychiatric nurse, examined her 15 years of experience with multidisciplinary teams in that specialty to write a retrospective account of the phases of

group development. She described six stages of group development. Selected observations included dependency behaviors on the part of nurse members during the earliest stage. She recalled nurses as asking the team leader for detailed instructions on what to do for patients beyond that which was specified in the care plan, for instance. She also included a conflict stage. At that time "factions within the team seemed to be hopelessly at war" (p. 169). She described the team leader as no longer effectual, and being seen as the root of all the team's problems. She implied that the leader was always removed either through firing or transfer. Ultimately, the group progressed to autonomy and a rational view of authority. Benfer's account seems to have elements in common with what Farrell and others (1986) reported. To assert that eviction of the leader is inevitable appears extreme, however.

Another description of a psychiatric team told how nurses, social workers, and aides complained of being unable to voice their concerns at a daily multidisciplinary staff meeting until well into the session, and sometimes not at all. They then had to resort to contacting selected team members later in the day in order to settle important issues. The adopted solution was to allow all staff members to write issues to be discussed on a laminated board at the beginning of the meeting. The agenda, which

could be seen by all, allowed better allocation of discussion time during the meetings (Chase, J. H. Wright & Ragade, 1981). Lower status members apparently needed some sort of formal structure or device to gain the attention of the higher status members.

Horwitz (1969) recounted a rehabilitation team conference in which the secretary functioned as moderator. Team members discussed at length the many problems of a particular out-patient, although Horwitz did not supply any information about the team's opinions or suggestions. He did imply that the team wished to make plans to address the patient's problems, however. At the end of the discussion, the physician made a unilateral decision to discharge the patient from the service, allegedly in opposition to the recommendations that had gone before. Horwitz seemingly lamented the lack of influence by the other team members.

Ducanis and Golin (1979) engaged in some informal non-participant observation of two health care teams during team conferences. They reported a high percentage of task-oriented discussion and very little activity in the way of group maintenance.

Research: Quantifying the Nature of Team Interactions

Feiger and Schmitt (1979) designed a year-long experimental study in the use of team-directed care for elderly diabetic clients residing in a long-term minimal

care facility. Thirty clients were enrolled in the study and randomly assigned to either team or non-team care. Four diabetes care teams were created, as none had existed before. Each team consisted of a physician, two nurses, and a nutritionist. The latter roles were filled by the same individuals in each of the four teams, but each team differed in the identity of the physician member.

Teams were instructed to develop individualized care plans, set six month goals for each patient, incorporate patient preferences in diabetes management, and increase the number of alternative solutions to individual patient problems. Patients were each assessed on 17 aspects of health in four general areas: social, physical, physiological and emotional functioning. They were reassessed at one year in terms of positive changes, negative changes, and overall change (Feiger & Schmitt, 1979).

During the first six months, all team conferences were videotaped. Trained coders reviewed the tapes and categorized all verbal activity according to sender, receiver, frequency of initiating verbalization and length of statements made. Coders also classified all speech into the following categories: asks for information, gives information, asks for opinion, gives opinion, makes suggestion, gives order, makes decision, gives education,

offers support or agreement, offers disapproval or disagreement, provides orientation, and provides humor. The preceding classifications are slight modifications of those used in Interaction Process Analysis, an observational coding system developed by Bales (1950). The investigators defined collegial interaction as physician participation that was equivalent to the sum of the participation of the two nurses, based on the fact that each nurse was responsible for half of the caseload, while the physician cared for all the patients discussed (Feiger & Schmitt, 1979).

Results showed that physicians initiated 31% of the remarks, while nurses initiated 61%. In other words, physicians received more communication than they supplied to others. The investigators interpreted this as reflecting status differences between physicians and nurses, with nurses being lower in status. However, when the four teams were analyzed individually, the ratios between doctor and nurse initiation of speech varied significantly. In one group the physician received only 3% more communication than he initiated. Feiger and Schmitt (1979) also reported that the teams tended to become less collegial over time.

For the process categories Feiger and Schmitt (1979) used factor analysis to identify three major patterns in

interaction: influence through opinion, suggestion or education; combined passive giving of information and active decision-making; and direct influence through seeking information and giving orders. Doctors were found to be higher on both the patterns that involved influencing, while nurses were higher on the other pattern, the giving of information and decision-making. Differences were again found between the four teams, although the results did not reach statistical significance. The researchers concluded that this pattern of interaction reflected a hierarchical style rather than a collegial one, and again, the groups became less collegial over time.

The four teams were subsequently rank ordered in terms of collegiality. Rank orders on participation collegiality did not correspond to the rank orders on interaction process collegiality. Standardized participation scores and standardized pattern of interaction scores were then combined for each team to arrive at an overall ranking of teams in terms of collegiality. Rank order of each team was then compared to their ability to influence patient outcome, as determined by positive and overall changes in the patients they had cared for (Feiger & Schmitt, 1979).

Feiger and Schmitt (1979) reported significant differences between the four teams in terms of positive changes made. Collegiality directly corresponded to team

ability to effect positive change. Curiously, when patient outcomes were assessed on the basis of both positive and negative changes, the teams did not differ in their abilities to effect overall change. The researchers did not offer any speculation about this discrepant result. In a later publication, Baggs and Schmitt (1988) reinterpreted the results as follows: "Over a year's time the team care (versus usual care) resulted in less decline in functional status and more positive change, with less overall decline across a variety of physiological, physical, social and emotional health outcomes" (p. 146).

Differences among the four teams were attributed to the physician members' styles of interaction. The physician on the most collegial team promoted team members' participation in decision-making and furthered their understanding of patient care. The physician on the worst team became increasingly withdrawn, to the point that he seemed indifferent to any decisions made by the members. Nurses adopted more of the influencing-type patterns of interaction in that team, making the team seem fairly high on process collegiality. Feiger and Schmitt (1979) labeled the finding an artifact, however. They judged it to be a response to lack of participation by the doctor.

Feiger and Schmitt (1979) have made an impressive effort to examine multidisciplinary team conferences and

the impact on patient care. They appear to be the only researchers to have investigated patient outcomes. The research report is extremely detailed, but insufficient detail is supplied regarding the assessment of patient outcomes. They did acknowledge that omission, however, stating that the methods would be forthcoming in another report. The only caveat to keep in mind at this point is that most research on multidisciplinary teams is conducted by staunch advocates of the team approach (Ducanis & Golin, 1979). The possibility always remains that data based on subjective interpretation could become unwittingly distorted, in order to support the desired findings. The assessment of patient outcomes may or may not have fallen into that category of subjective interpretation.

Another group of researchers tape recorded multidisciplinary team conferences for seven weeks in a rehabilitation hospital. Subjects were the members of two teams having 10 and 18 members, respectively. The tapes were coded for frequency of speech by persons according to occupational groups. The disciplines represented included medicine and nursing, among others. Statements were also coded as authoritative or non-authoritative, and as addressing either physical or psychosocial matters, community and financial resources, or other undefined

topics. The two teams were found to be similar, and the results were combined (Rintala et al., 1986).

Results showed that physicians talked the most, making 41% of all statements. They also made more of the authoritative statements. These represented 62% of all such remarks. Physical matters received the most emphasis, taking up 65% of the discussion, while psychosocial topics entered the discussion only 14% of the time. Nurses made 15% of all statements, 5% of the authoritative statements, 12.5% of the comments regarding the physical area, 22% of the remarks addressing the psychosocial area, and 9% of the statements concerning community resources and financial support (Rintala, et al., 1986).

Subjects also completed a questionnaire indicating their preferences regarding how much each discipline should hold the floor in discussion, make decisions, and address specific topic areas. Results showed that the team preferred more discussion devoted to areas other than physical care. Conclusions were that hierarchical structure prevailed, permitting physicians to assume and maintain an authoritative role. Persons qualified to address psychosocial issues may have been underrepresented on these two teams. The nurses on the teams were described as being primarily focused on physical care. Lack of discussion about psychosocial issues may well have been due

to the fact that each patient attended the portion of the conference pertaining to him or her. Thus, team members may have been reluctant to raise psychosocial issues at that time (Rintala et al., 1986).

Sanson-Fisher, Poole, and Harker (1979) conducted a similar study among a psychiatric team in a general teaching hospital. Results were similar, but even more pronounced, with physicians speaking 88.6% of the time and making 95.5% of all authoritative utterances. Non-medical staff members made only 11.4% of all statements and only 4.5% of all authoritative remarks. Topic distribution was 55% medical, 31% sociotherapeutic, 3% psychotherapeutic, and 11% other. The staff reported they preferred to participate more in the meetings than they actually did.

Patterson and Hayes (1977) created multidisciplinary groups of students for the stated purpose of having them discuss the personal and professional meanings of illness. Another set of students were organized into single discipline groups and asked to address the same questions. The sessions were videotaped and coded according to frequency of participation by individual and nature of statements made. The investigators provided limited detail regarding the methods and analysis. Their conclusions were that medical students were the most frequent contributors

in multidisciplinary groups, followed by nurses and occupational therapists, in that order. Nurses were not among the groups most responsive to questions from others, and they talked less about their roles as professionals. In contrast to the single discipline groups, students in the multidisciplinary groups were more guarded about sharing information about themselves and their professional roles. Since these groups were not functioning teams and presumably disbanded after the study, one wonders if the results were not distorted by the artificial situation. The study was conducted in Australia and could therefore have limited generalizability to the United States.

Farrell, Schmitt and Heinemann (1988) compared an in-patient multidisciplinary health care team and a home care team on stage of group development and nature of group interaction, followed by a team development intervention. Both teams were subsequently reevaluated at repeated intervals in terms of stage of group development and team dynamics.

The in-patient team was in the "Testing and Dependency" stage initially, and their meetings were described as being very structured, with each member speaking in turn. The home care team was in the "Conflict" stage, however. Their meetings were unstructured. Dyadic communication between two members or between physician and

team member frequently disrupted the general group discussion. These findings were obtained through observation and videotaping (Farrell et al., 1988).

Farrell and others (1988) administered the Moos' Group Environment Scale to both groups as a means to measure informal role structure within the groups. Subjects responded "true" or "false" to statements such as:

1. "There is a feeling of unity and cohesion in this group."
2. "This team has a set way of doing things."
3. "The team usually follows about the same pattern in every meeting."
4. "Activities of the group are carefully planned."
5. "It is sometimes hard to tell just what is going on in this group."
6. "In this team members are learning to depend on themselves."
7. "There is a lot of spontaneous discussion in this team."
8. "Members tend to hide their feelings from one another."
9. "People in this team sometimes yell at each other."
10. "Members often gripe."
11. "The leader has much more influence in the group than the other members do."
12. "The leader often tells other members how to do things." (pp. 41-42).

Based on responses to this instrument, Farrell and others (1988) concluded that both teams were high on task orientation and low on innovation. The in-patient team reflected a sense of constraint, and its members were focused on their ties to authorities in functional departments in the larger hospital organization. The home

care team was lacking in a sense of order and organization. However, it was composed of members engaged in greater self-discovery in their work. Members of this team also engaged in greater expression of both positive and negative feelings than did the in-patient team. The home care team was preoccupied by issues surrounding the wielding of authority by the physician leader.

SYMLOG (Systematic Multiple Level Observation of Groups) field diagrams were also created for both teams, based on scores generated using the SYMLOG Adjective Rating Form (see Appendix A). Each member received scores on three scales: prominence, sociability, and task-orientation, permitting placement in the field diagram (Farrell et al., 1988). A sample field diagram with explanatory note appears in Figure 3.

Although the home care team clustered in the positive-forward quadrant at the beginning of the study, Farrell and others (1988) concluded that they were polarized, with the physician and social worker falling outside the area of unity. The SYMLOG field diagram for the in-patient team showed individuals scattered through the positive-forward quadrant. Prominence scores for the in-patient team showed greater equality of participation than that seen in the home care team.

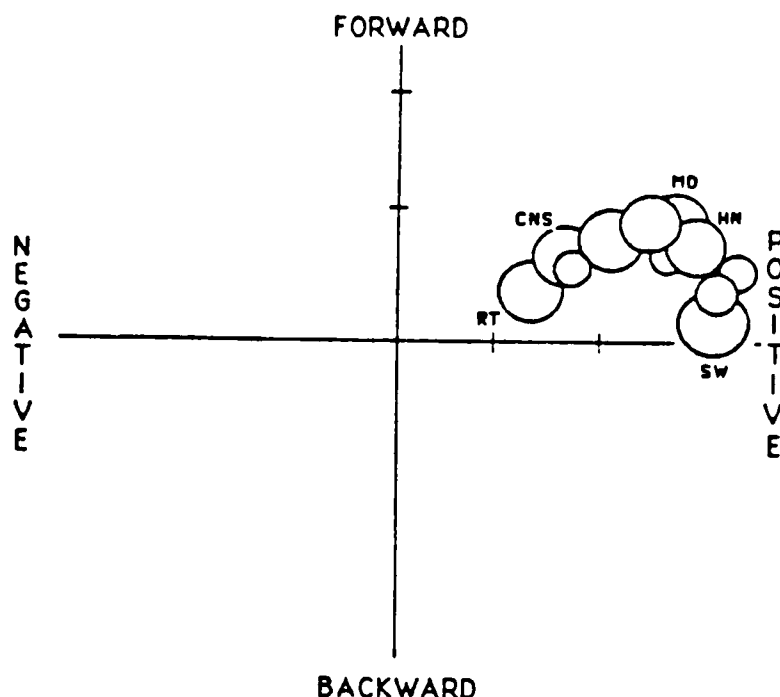


Figure 3. The Coalition of Colleagues as depicted on a SYMLOG field diagram. (Circles represent group members. Larger circle size indicates greater prominence. Sociability is indicated by the position of each circle on the positive-negative axis. Task orientation is indicated by the position of each circle on the forward-backward axis. Abbreviations indicate the clinical specialties of selected team members.)

Note. From "Organizational Environments of Health Care Teams: Impact on Team Development and Implications for Consultation" by M. P. Farrell, M. H. Schmitt, and G. D. Heinemann, 1988, *International Journal of Small Group Research*, 4, p. 45. © 1988 by International Journal of Small Group Research. Reprinted by permission.

Farrell and others (1988) also characterized the team members according to their expressive roles on the team. These roles were defined earlier in the discussion of their report published in 1986. On the in-patient team, the clinical nurse specialist was the Wonderwoman. She was task-oriented and assertive, but lacked formal authority. The head nurse was the socioemotional specialist, but the researchers did not attach a label to her. Nor did they label the physician, who was prominent, task-oriented and sociable. The rehabilitation therapist resembled the Scapegoat. The social worker was male and functioned as Clown.

On the home care team, the physician resembled the Tyrant. The nurse practitioner was sometimes the Hatchetman. The head nurse was both prominent and sociable, but received no label. The secretary was the socioemotional specialist. The social worker was least task-oriented and rather submissive (Farrell et al., 1986).

In providing consultation to both teams, Farrell and others (1988) observed that they were readily accepted by the in-patient team which was very compliant with the workshop procedures. They readily accepted the advice given to them about how to organize their meetings and how to interact with each other. The consultants attributed

this easy penetration of the group to their lack of cohesion and high level of dependency in regard to authority.

The intervention for the in-patient team was to take them through the "Conflict" stage to what the researchers called "Functional Role Relatedness". They directed the team to examine hidden tension and conflict, evidenced by Clown and Scapegoat roles, and guided them through some sessions of confrontation and resolution. They also advised the administrative members of the team to form plans for socializing new members, among other suggestions (Farrell et al., 1988).

The home care team had resisted consultation until suffering a serious confrontation within the group. Even after the consultants arrived, group members clung tenaciously to the divisions that had been formed and tried to draw the consultants into joining one side or the other. In order to gain the trust of the members, the individual consultant accompanied team members on home visits, taking pains to listen to each member's version of the story. Farrell and others (1988) concluded that the group resembled an enmeshed family. Those in authority did not want to let go of other members who were ready for more independence. Exaggerated stereotyping also occurred.

As intervention, Farrell and others (1988) created a moderator role for team meetings so communication would be less focused on the physician. Less prominent members were recommended for the role. Members were advised to create more distinct boundaries between their professional roles and to concentrate on functioning expertly within those areas only. Other activities included discussions of decision-making, informal roles, resolution of conflict, and use of periodic administrative meetings.

Both groups improved initially, moving toward the Coalition of Colleagues shown in Figure 3. At six months, the in-patient team retained that level of functioning, while the home care team had regressed. Farrell and others (1988) concluded that health care teams with only weak ties to outside functional departments may be difficult to help due to enmeshment. Allowing such a group to progress to the "Conflict" stage made consultation doubly difficult. Consultation during the early stage of group formation seemed more ideal.

Engstrom (1986) observed nurses' participation in multidisciplinary team conferences both before and after a training program designed to increase communication by nurses regarding patients' need for information. Ten neurological team conferences, both before and after the intervention, were tape recorded. The tapes were then

analyzed for percentage of statements made by members from each discipline, the percentage of statements directed toward certain topic categories and by whom those statements were made, and the usage of certain types of verbalizations. Modified Interaction Process Analysis categories were used (Bales, 1950). Presence or absence of decision-making in response to a report of a patient's need for information was also determined.

Engstrom (1986) found that verbal activity of nurses increased after the intervention and included more frequent giving of opinions and suggestions. Overall content of team discussion shifted away from diagnosis and treatment toward social, psychological, and physical aspects of care. Engstrom found that only 52% of the information problems reported led to decision-making about those problems, however.

A confounding factor in assessing the value of the intervention was the presence of medical students at the pre-treatment stage only. Engstrom (1986) indicated that a lot of physician communication regarding medical matters was directed toward those students when they were present. In their absence, physicians may have been more willing to share the floor with other health care disciplines. The study was conducted in Sweden, but did not seem to take

place under conditions markedly different from what one would expect to find in the United States.

A very small study reported by Newman and Boissoneau (1987) examined interaction logs maintained by four students working with a geriatric assessment team in a Veterans Administration Hospital. The four subjects represented the fields of clinical psychology, clinical pharmacy, social work and gerontological nursing. The students recorded all patient care-related interactions with hospital staff over a one week period. Students were also asked to indicate their degree of satisfaction for each interaction.

Findings showed that out of a total of 79 interactions, 73% were interdisciplinary in nature, 62% of which occurred within structured team meetings and 38% of which occurred outside the team meeting. Students unanimously reported that they were "mostly satisfied" with interactions outside the team meetings on all occasions. But in the conference setting, only 86% of the interactions brought a rating of "mostly satisfied". The authors speculated that the time constraints of a team meeting did not allow students to pursue some questions that they felt free to discuss individually with another team member at another time (Newman & Boissoneau, 1987). This study

serves to highlight the fact that team meetings must be supplemented with other forms of communication.

Some more reports appear in the literature, testifying to better patient outcomes when the multidisciplinary team provides the patient care. Those reports do not explicitly address the team conference as a component of that care, however, and one cannot safely assume that all the teams studied used team conferences on a regular basis. Therefore, those studies will not be discussed.

Nurses on the Multidisciplinary Team:

Predicting Interactions

It is now appropriate to take a close look at nurses as potential team members. Nurses, as a professional group, have a unique heritage among the many professional disciplines that enter into multidisciplinary teamwork. Nurses may also have unique inner qualities that determine who they are as individuals and as team members. Through an in-depth exploration of nurses and their professional lives it becomes possible to predict nurses' behaviors in the multidisciplinary team conference in at least a general way.

Cultural and Social Dictates: Prescriptions for Behavior

All women are shaped by the culture and society in which they live. Norms and values of that culture

influence the socializing process that continues over a lifetime to make each woman what she is. The health care institution represents the larger society in microcosm. As such, it attempts to dictate what nurses in that setting should be. Rigid prescriptions have been established for the nurse-physician relationship, although relationships for nurses with other professionals remain ambiguous.

Nurses might be said to represent the quintessential woman, and to the extent that that is true nurses do differ from women in general. Through their experiences as nursing students and as hospital employees nurses might be said to receive a double dose of the socializing influences that Western culture directs toward female members. Nurses, however, may represent a sub-set of American women who seek, rather than reject, the typical socialization offered to them through the work of a nurse.

These matters will be explored with an eye to identifying the influences that would inhibit verbal contributions by nurses in multidisciplinary team conferences. The ensuing discussion is admittedly biased toward an examination of the traditional socialization of nurses. It ignores, to some extent, recent efforts to break out of the mold in which nurses had formerly been cast. Nonetheless, traditional thinking still persists,

and it still influences a great many nurses in their choice of behavior as they practice their profession.

Stereotypes of women and nurses: human consequences.

Stereotypes about women have special relevance for the nurse because 93% of nurses are women (Green, 1988). Women are supposed to be the nurturers in our society, owing to their alleged predisposition for being caring, sensitive and compassionate. They are also imagined to have an intuitive ability to establish rapport with all people. On the basis of these beliefs, society expects certain behaviors from women. They must attend to the needs and wants of others (Heide, 1973), often without concern for themselves. Self-sacrifice is heralded as a feminine virtue (Muff, 1982a).

According to the stereotypical point of view, women are not supposed to be too intelligent or too accomplished (Schutzenhofer, 1988). It is preferred that women remain unknowledgeable, and thus, dependent on others. Behaviors that would stem from those concepts are passivity and peace-keeping. Women are expected to be uniformly pleasant and nice in their interactions with everyone (Dean, 1978). They should know of their own worth through their affiliations with others (M. Adams, 1971; McClain, 1978).

Another stereotype presents the female as a someone who implements work but does not design it. Women are not expected to solve problems, and their opinions on how problems might be solved are not to be taken seriously. Flowing from this belief comes the expectation that women should be preoccupied with the present, not with the future (Dean, 1978). Most certainly women should not seek to be leaders (Brooten, Hayman & Naylor, 1988). To allow the ineffectual to lead would invite certain disaster. Fitting in with this line of thinking is the idea that women are not only inherently subjective and irrational, but given to emotional outbursts (Heide, 1973).

Women are also expected to recognize that men possess many valuable characteristics which women do not have. Women must know that they are weak while men are strong. From this belief comes justification for the idea that women should be subservient to men (Bacon, 1986). Submissiveness becomes the valued behavior (Heide, 1973).

The stereotypical occupation for women is that of wife and mother. No other occupational identity is rightfully theirs. For a woman to live up to this dictate she must marry and have children (A. H. Kennedy, 1986). A more recent version of this prescription is that women who work should do so in an occupation that does not award them

status or pay that is higher than that of their husbands (Komarovsky, 1973).

Muff (1982b) explained that stereotypes do serve a purpose. She saw them as a strategy to reduce the need for men to enter into complex relationships with women, because women are seen as impossible to understand. If the image of women is diminished in the minds of men, women become less threatening and more approachable as sexual partners.

As a result of adhering to the female stereotype, women face a number of dilemmas. Albeit, there is research to indicate that significant numbers of women are not influenced by all of the stereotypes. However, the purpose here is to show what impact cultural dictates can have on women's lives.

McClain (1978) hypothesized that women come to expect to be rewarded, through conformity and interpersonal relationships, with a sense of fulfillment and security. Undoubtedly this is sometimes an empty promise. He also predicted that if the socializing agents of women were to overemphasize affiliation during childhood, it would thwart the acquisition of independence and self-assertion.

Persons of either gender apparently respond throughout their entire lives to the expectations others have of them (Frieze, Parsons, Johnson, Ruble & Zellman, 1978). Women tend to develop a high need for approval, as a result of

their upbringing in Western culture (Lasky, 1982). This renders them "forever vulnerable to hints of disapproval and rejection" (Muff, 1982d, p. 180). So if a woman chooses to offer her opinions and suggestions to others, and those ideas are not accepted for whatever reasons, she may well regard the rejection as a personal rebuff. Women can protect themselves from rejection, however, by avoiding declarative statements which would clearly identify ideas as their own. Instead, the offering of indirect suggestions and the posing of questions are preferred manners of speech (McCurdy, 1982). Unfortunately, this style of talk gives some credence to the charge that women are manipulative (Numerof, 1980).

Henley and Freeman (1982) discussed the reported male behaviors of greater quantity of speech in groups and greater frequency of interrupting when someone else is speaking. Under such circumstances women may not hold the floor for long. Studies of women's behavior, as portrayed on television, showed that women initiate and receive fewer responses than men (Downs & Gowan, 1980). It is plausible that television could reflect real life, in this instance. Overall, women may not be prominent contributors to group discussions.

Gilligan (1977) pointed out that many women feel as if decision-making is not a large part of their lives, and

that others will make most of their decisions for them. Women allegedly acquire "a sense of subordination, of being only an adjunct to someone else rather than being an important and serious person in one's own right" (Eisenstein, 1982, p. 102). This allegedly affects women even if they do not pursue marriage or traditional female employment--it affects women entering into non-traditional careers, as well.

Women tend to underestimate their skills and abilities (Lasky, 1982) and are more likely to select vocations such as teaching, nursing and secretarial work rather than higher status occupations like business management, science or law (Baruch, 1976). They may avoid success because they are told that achievement is unfeminine (Horner, 1972), or the avoidance may occur for more complex reasons. Feelings of competence that arise from achievement could provoke "unconscious emotional conflict" (Lasky, 1982, p. 66) in persons who have low self-esteem. Therefore, success is better left alone.

Women who aspire to live up to the image of the ideal woman acquire an urgent need to receive male attention and enter into marriage. This has been said to breed rivalry among women. Consequently, women may be less available to each other for social and emotional support (Muff, 1982d). Once a woman enters into marriage and childbearing, she is

likely to end up being the lone adult member engaged in housework and child rearing (Eisenstein, 1982).

The vocation of housewife has been conceived in such a way that women must do mundane chores without real pay (Shainess, 1982). When entering into the labor market, most women must confine themselves to routine, non-professional jobs that hold little, if any, promise of promotion. Most of these jobs provide low pay and little prestige. Since women have traditionally been regarded as housewives, they are seen as not needing high pay, and because most women cannot obtain higher paying jobs, they cannot afford to abandon the goal of becoming or remaining a housewife. Most women have been indoctrinated to accept housewifery as their lot, and are quite tolerant of the role. Thus, they remain in a dependent social and economic situation which continues to permit them to work for low pay. In this manner, the poor economic status of women perpetuates itself (C. T. Adams & Winston, 1980; Eisenstein, 1982; O'Leary, 1976).

Women have entered into responsible positions within traditionally male fields with greater frequency in recent years. However, Athanassiades (1974) found that women in managerial positions feel less freedom of action than do men in similar positions. Specifically, the "women feel that they have less opportunity to participate in decisions

than men; feel more than men that they do not have sufficient authority in their jobs; that too often, decisions are imposed on them from above; and feel less free than men do to express disagreement with superiors" (p. 201). Both men and women indicated that women are discriminated against in the world of work. Athanassiades' key finding was that among women who felt less autonomous, there was a greater likelihood that they would distort the information that they presented to their supervisors. He raised the question of whether this does not incur real costs for the individuals involved as well as for the organizations in which they work.

The stereotypical beliefs about women, and the choices and behaviors that those ideas dictate, may have debilitating effects on the women who conform to them. These women may not be able to attend to their own intellectual and emotional needs, since they are burdened with nurturing others. In fact, they may experience guilt regarding attention to self, because others label it as selfish and despicable (Schutzenhofer, 1987). Furthermore, if they are truly as dependent as they have been socialized to be, they may be very reluctant to express any negative feelings about their interpersonal relationships or living situation. To do so would be to risk losing what little economic and interpersonal support they actually have

(Muff, 1982a; Shainess, 1982). Women tend to feel a strong sense of responsibility for maintaining each and every relationship of which they are a part (Schutzenhofer, 1988). Some women will even apologize for undesirable events that are beyond their control (Tax, 1970).

Muff (1982d) stated that "many women refuse to acknowledge the evidence of sexism in their lives through defenses such as denial and repression" (p. 180). Nonetheless, all women can be expected to experience a variety of negative feelings throughout their entire lives. Unfortunately, the stereotypical woman may have no outlet for anger and hostility since conflict is not a legitimate option for her. Thus, expressions of negative feeling tend to be covert, which leaves considerable doubt in her own mind as to whether she has made her point, and she becomes "angrier still at her own impotence" (p. 179). The eventual emotional response may be depression, guilt or childlike behaviors. However, some women will express anger through aggression, which may take the form of the hostile aggression they have previously received (Menikheim, 1979).

Women resemble oppressed minorities in their behaviors. The two most common ones are "identification with the dominant group and aggression against one's own group" (Muff, 1982d, p. 180). Muff contended that the

above phenomena represent a defense mechanism. Individual women need not hate themselves if they can show that in some way they are not a member of the subjugated group.

Stereotypes about nurses incorporate those that are held about women in general, but nurses find themselves the objects of some additional stereotyping, as well. The nurse is expected to be a dedicated public servant. In the past, nurses were actually thought to have had a religious calling to serve humanity. There was a certain element of self-flagellation in the manner in which the nurse was supposed to carry out her Godly mission. She was to be untiring in her efforts to help others, without concern for her own needs or discomfort in the matter. She was not to complain about burdensome labor, complicated by inadequate matériel with which to do her job (Leininger, 1970).

The nurse was also expected to be a paragon of virtue at one time. This apparently demanded a lifetime of chastity and impeccable honesty (Leininger, 1970), and may have contributed to the idea that nurses should attain perfection in meeting absolute standards (Smythe, 1982). Subsequent stereotypes contradict this picture, however. For instance, Cargill (1986-1987) stated, "More often, in both popular literature and real life, the nurse is viewed as a task-oriented creature, whose real desire in life is to file her nails and marry a doctor" (p. 33).

Another stereotype continues to be the picture of the nurse as what Brodegaard (1982) termed "the early symbiotic mother" (p. 296) who is available at all times to meet fundamental dependency needs. This image construes the nurse as the new mother caring for her patient as if he or she were an infant. Related to this concept are the beliefs that the nurse's role is that of tension reducer or "maintainer of equilibrium" (Deloughery & Gebbie, 1975, p. 147).

Other widely held public images of the nurse are the "woman in white carrying a bedpan" and "handmaiden of the physician" (Dean, 1978, p. 11). The corollary of this thinking would seem to be the idea that nurses "do not have a grasp . . . of scientific data" (p. 12). Thus, they are inherently ill-informed. The only appropriate role is a subordinate one, and after all, nurses should surely prefer it that way (Muff, 1982b). However, nurses have had to be actively socialized to adopt the submissive role. Nurses have been cautioned to always utilize tact and diplomacy, and refrain from antagonizing others or using any of their power (Lowery-Palmer, 1982). Wolf (1977) cited a 1920 nursing textbook which stated, "'The nurse should . . . avoid . . . all temptation to air her knowledge--a mistake that many nurses are prone to make.'" (p. 65).

One of the most persistent and troublesome beliefs about nursing is the idea that anyone can do it, if she is female. As Muff (1982c) put it, since society "assigns to women those [jobs] that require only 'natural' attributes . . . women and nurses, then, receive little credit for their work. Their success, after all, is innate, assured by their very nature. Caring is automatic and requires neither brains nor skill" (p. 187).

Stereotyping has certainly left its mark on nurses to at least some extent. Some of the behaviors or thought patterns seen over the years include aversion to conflict (Kramer & Schmalenberg, 1976), blind obedience (Cargill, 1986-1987), dogmatism (Smythe, 1982), extreme fear of making mistakes (H. O. Mauksch, as cited in Menikheim, 1979), ritualistic acts of deference (Lewis, 1976), submissive language styles (Menikheim, 1979), self-denial (Schutzenhofer, 1987), and unrealistic beliefs and expectations (Smythe, 1982). As examples of self-sacrificing behavior Schutzenhofer (1987) cited "nurses who skip meals and breaks, work overtime and extra shifts, and work under intolerable conditions because 'their patients need them'" (p. 278).

Leininger (1970) noted a long-standing emphasis among nurses on physical care of patients, and as sophisticated technology appeared, coupled with higher patient-to-nurse

ratios, a preoccupation with task completion. The missing feature has been independent thinking and free exchange of ideas. When nurses have attended multidisciplinary meetings or been present for impromptu discussions, it has been their custom to remain silent. Nurses have believed they could do little to influence the course of events (Lowery-Palmer, 1982). In fact, nurses have been noted to automatically assume they could not solve problems that demanded intellectual application. Although such situations frequently arise while providing patient care, nurses have tended to avoid active problem-solving. They have, instead, turned to some other authority (Byrne, 1982). And yet, in spite of all the passivity and active avoidance of decision making, Richardson (1986) claimed that the literature tells of nurses feeling angry because no one approached them requesting their opinions.

Smythe (1982) discussed the propensity of nurses to engage in irrational self-talk, owing to their unrealistic expectations. For example, nurses devalue themselves when they cannot meet extremely high standards. She claimed that nurses also engage in "awfulizing", the interpretation of a mishap or error as a disastrous event. Once nurses fall into this particular pattern of thought, they become paralyzed with indecision. Smythe also indicated that negative self-talk limits nurses' ability to assess their

approval granted for obedient performance in her job. But a nurse cannot be accorded prestige, because that is approval which accrues to a position itself, not to the abilities of the office holder to execute the tasks that the position demands.

Nurses and physicians: two castes in a rigid social structure. Wessen (1972) identified rigid patterns of segregation between various groups of hospital personnel in his sociological field study of a metropolitan general hospital, and applied the term "caste-like". He noted that as the observer examines successively higher ranks within the structure, the more those persons of higher rank are able to freely establish who they will or will not talk to and when that communication will occur. Lewis (1976) applied this conceptualization to her descriptions of nurses and physicians interacting on an in-patient unit during the daily process of patient rounds. Of course, the nurses comprised the lower caste.

Leininger (1970) described authoritarianism as a traditional cultural norm in nursing. Authorities, be they hospital administrators, nursing educators, nursing supervisors, or physicians, were regarded with awe and respect. Fear of authority was also prevalent. Persons in leadership roles were expected to possess complete and

absolute knowledge, and were thought incapable of error. According to this thinking, passive compliance with the directives of the established authority figures would provide each nurse with a sense of personal security and complacency.

Ensuing behaviors included allowing persons in authority to enter rooms and elevators ahead of nurses. Nurses rarely spoke until the person of higher status had spoken first. If a nurse felt compelled to question an authority figure, she did so with great trepidation and meekness (Leininger, 1970; Menikheim, 1979).

A key working relationship for all nurses, past and present, is that with the physician. The physician, like nurses, comes to the health care field surrounded by many stereotypes. In this instance, the stereotypes serve to bolster his image in the eyes of both patients and hospital personnel. Although women are now entering medicine in much larger numbers than before, men still predominate, and they certainly did so in the past. Thus, qualities ascribed to physicians are those that are regarded as highly desirable in males. Physicians are presumed to be aggressive, brave, decisive, dedicated, dominant, objective, persistent, and rational, among other qualities (Cape, 1986; Richardson, 1986).

The physician-nurse-patient relationship has also been stereotyped. Lawry (1986-1987) spoke of "the doctor as general of the army in the war on disease and the nurse as his loyal foot soldier. Obedience was to be immediate and unquestioned" (p. 36). He also told of the hospital family stereotype. "The doctor was dad, the nurse, mom, and the patient, the sick child. Mom took care of the child during the large part of the day [while] dad was away, but he was still clearly in charge whenever he returned" (p. 36).

Physicians hold a great many attitudes and beliefs about their abilities, prerogatives, and working relationships, and because of their substantial power in health care institutions, those attitudes and beliefs have a significant impact on nurses' working lives. I. G. Mauksch (1981) described the physician's expectations as including the prerogative to leave written orders for patient care based solely on his own judgment, expecting the nurse to carry them out. The rationale for the orders need not be shared with the nurse, and consulting the nurse is rarely considered. The doctor expects that the nurse will not discuss medical care with a patient, sometimes to the point of imagining that the nurse will not identify the patient's medications to him or her or explain the purpose of a diagnostic test. I. G. Mauksch claimed that some hospitals still do not allow nurses to tell patients their

temperatures or blood pressure readings. According to Collins (1988), the reluctance to consult nurses about designing patient care continues to characterize older doctors today.

Physicians' view of themselves tends to be one of being all-knowing and all-powerful. Stein (1967) explained that physicians actually have a phobia about making mistakes and must find a suitable defense mechanism, which proves to be omniscience and omnipotence. In Stein's view, the generalization of omniscience and omnipotence to other aspects of physicians' lives accounted for their unduly high rate of fatal accidents as private airplane pilots. Stein recounted a journalistic investigation which showed that such flights were not undertaken to provide emergency patient care, and underlying causes of the accidents were poor judgments and high levels of risk-taking. Obviously, anyone who is omniscient does not need to consult a nurse about planning patient care or flying an airplane.

Physicians' views of nurses mimic the stereotypes described earlier regarding nurses and women in general. Physicians also have another impression about nurses which was quite aptly described by Horwitz (1969) as "dispensers of 'narcissistic supplies'" (p. 38). He went on to state that male members of the health care team may collectively hold this view, and may at times expect nurses provide

emotional gratification to patients. Horwitz did not openly state whether the male members expected to be the recipients of any such attention themselves.

In terms of the physicians' impression of his relationship with the entire health care team, the most prevalent conceptualization seems to be that of "captain of the ship". Instead of collaborative interaction, the physician may imagine that everyone is actually working to serve him in caring for patients which are his. He has merely delegated tasks to these other persons since it would be too wasteful for him to take the time to do it himself. This line of thought does not leave room for the idea that any of the team members have relevant information or skills which he does not possess (Kalisch & Kalisch, 1982).

Most physicians' working definition of quality patient care is merely rapid compliance by others with the physicians' demands (Wessen, 1972). The sort of goal-setting espoused by multidisciplinary teams does not seem to be a feature of the above definition.

Richardson (1986) explained that physicians have been taught to regard sharing the care of their patients with other providers as a form of abandonment. Thus, physicians form a distorted impression of the value of other health care professions. Furthermore, doctors appear to be little

given to self-examination on the subject of their relationships with other professionals.

Webster (1988) shed some light on why that might be so. She described physicians as possessing an ethnocentric view, something that is taught to them in medical school. Specifically, medical students learn that what they do as doctors constitutes the valuable component of patient care, and that they are to be unimpressed with the contributions of others. Webster conducted a field study that included interviews with 60 medical students. Medical students tended to regard other health care workers as persons who merely could not succeed in getting into medical school, and they believed that what these other groups practiced was really a simplified form of medicine. This could easily lead physicians to think their education had already encompassed what these other groups know, and would very likely limit physicians' curiosity to find out if other disciplines possess unique knowledge.

Physicians remain naive in another regard, as well. Because of their easy access to hospital resources and the extensive adaptation of others to meet their needs, their sense of time and resources tends to be expansive. Thus, they may leave impractical orders for patient care without even realizing that nurses will have great difficulty finding the time to perform elaborate procedures or be

unable to procure exotic or rarely used supplies and equipment (Sheard, 1980).

Furthermore, physicians have been known to be sharply critical of what they perceive to be true of nurses. Lee (1979a) found 78% of doctors believe nurses already make sufficient contributions to planning patient care, and 10% thought nurses possessed too much control regarding patient management. Collegial relationships were not widely endorsed in that survey. In fact, at least one respondent complained that nurses were changing from a formerly "humanitarian profession to a bunch of self-seekers who are educated beyond the point of usefulness" (p. 24). Lee (1979b) conducted another survey in which physicians indicated that nurses do not understand how the human body is affected in illness or how the prescribed treatments work.

Customary physician behavior in hospitals has been to make decisions on a number of matters for which they have not been educated to any great extent, if at all. In terms of patient care, the prescription of diets is a prime example. Furthermore, various groups have sought the counsel of physicians on the design of management and educational initiatives for health care institutions. Physicians have seemingly had no qualms about their lack of preparation for addressing these tasks, gladly dispensing

whatever advice came to their minds (I. G. Mauksch & Miller, 1981).

Physicians demonstrate their higher social rank through a variety of behaviors. Wessen (1972) conducted 30 hours of systematic observation on hospital units to identify inter-group communication patterns. Physicians were three times more likely to talk with another physician while at the hospital than with a nurse. Goffman (1956) described the propensity of physicians to adopt informal behaviors in team meetings and at nurses' stations, while other health care workers maintained a more formal stance. In light of the age of these observations, however, their continued applicability might be questionable.

Another physician behavior is the interruption of a nurse while she is interacting with a patient, followed by a physician-patient discourse that totally ignores her presence (Collins, 1988). Garvin and C. W. Kennedy (1986) labeled this disconfirming communication. They explained that such behavior indicates to the nurse that she is unrecognized and that she possesses no meaningful relationship to any of the persons present. It also denies acceptance of or value to the nurse's contribution to patient care.

Nurses have also been the objects of verbal and non-verbal abuse from physicians. Examples include expressions

of anger, threats to have the nurse fired, public humiliation of the nurse in the form of verbal tirades, fits of temper involving the violent manipulation of solid objects, blaming nurses for everything that goes wrong, and publicly disparaging a given nurse. Sometimes physicians have written condemnations of nurses in patient charts. Cox (1987) conducted a survey of nurses employed in west Texas to determine the prevalence of verbal abuse. Out of an approximate 670 respondents, 82% of nurses indicated that they had been subjected to verbal abuse, including multiple incidents in a number of cases. Physicians were reported to be the most common source of verbal abuse by 78% of those respondents employed as staff nurses.

Nurses are faced with making a response to behaviors and demands of physicians. Cargill (1986-1987), an MD, indicated that nurses no longer "whisper in the presence of physicians, and finish every sentence with 'yes, doctor'" (p. 33). Nonetheless, a review of some of the traditional nurse behaviors opposite physicians is revealing. Early traditions portrayed the physician as a paternal figure, who elicited from the nurse reciprocal behaviors such as submission, deference, respect and humility. The nurse's behavior often exhibited quiet attention to the physician. Sometimes nurses would confide in doctors and do special favors for them. Leininger (1970) claimed nurses felt that

if they did not behave in this manner they might not be helped or protected in a future crisis situation.

Nurses are still observed to engage in behavior directed toward accommodating the physician (Leininger, 1970; Lewis, 1976). Activities include stacking and carrying his charts, bringing him coffee and breakfast, and arranging a place for him to work when he enters the unit, among others. It is no longer a practice for nurses to stand when the doctor enters the nurses' station, however.

Wessen (1972) noticed that if a nurse happened to be engaged in a conversation with someone and the doctor chose to join in, the nurse would withdraw. He also observed what he termed ward rounds, a type of formal session that may have been the equivalent of multidisciplinary team conferences. He reported that nurses would not speak in those sessions unless called upon.

In the study of verbal abuse described earlier, Cox (1987) determined that the common response of nurses to verbal abuse was acceptance. She quoted one respondent as stating, "'One of our roles is providing an outlet for temper tantrums'" (p. 49). Other nurses reported lack of support when attempting to rectify situations of verbal abuse, however. Cox again quoted a respondent as saying, "'[I] reported him but repercussions were for me'" (p. 50).

Specific speech patterns and mannerisms have been noted when nurses approach physicians and offer suggestions and ideas. One such mannerism is for the nurse to ingratiate herself with the physician through use of sycophantic expressions of servility. A hint of that comes across in a statement by a nurse writing about Visiting Nurse Associations in a 1988 issue of The Internist. Franck stated, "nurses learn when each doctor whose patients they care for likes to be called regarding a case [emphasis added]" (p. 23). Instead, the author could have reinforced the idea that the nurse would assess the patient and then, based on her own clinical judgment, make a decision about whether a call to the doctor is warranted.

Bullough (1978) asked nurses to respond to a questionnaire presenting hypothetical nurse-physician conflict situations for which a variety of multiple-choice responses were provided. Those responses considered to be self-effacing and conflict avoiding were selected most often by the 103 nurses in the sample. At this juncture it is appropriate to point out that Bullough's study was first published in 1975, and that in many studies data collection precedes publication of findings by several years. Thus, the reader must consider the possibility that by 1978 the responses of nurses toward physicians might have been more assertive than what Bullough described.

One of the classic essays on nurse-physician interaction was written by Stein (1967), who examined the relationship from the standpoint of a cultural anthropologist. He labeled the indirect communication pattern the "doctor-nurse game". In the game, the nurse is expected to make recommendations to the physician about patient care, without appearing to do so. Likewise, the physician requests the advice of the nurse without tacitly acknowledging that a request has been made. Such messages can only be transmitted through indirect statements, requiring a great deal of inference on the part of the receiving party. Stein explained that this sort of discussion allows each party to discuss ideas without having to commit themselves to any particular position. He claimed that a "sub rosa" agreement is eventually formed, which is then validated with a physician's order. The ultimate goal of the game is to avoid open disagreement. The nurse who learns the game well is rewarded with the physician's esteem. Stein added that, "The outspoken bright nurse whose recommendations are worthwhile remains employed. She is, however, constantly reminded in a hundred ways that she is not loved" (p. 700). He also remarked that the doctor-nurse game enables the physician to maintain his position of clear authority in the hospital social structure.

Webster (1988) identified a variation of the doctor-nurse game which she termed the nurse-medical student-physician game. Nurses have a need to communicate their suggestions about patient care to physicians, but assume they will be rebuffed on the basis of past experiences. Medical students have a need to impress the physician regarding their eagerness and interest in designing medical interventions. Nurses and medical students confer prior to the team conference or walking rounds, and later the medical students present the nurses' ideas as their own. The physician can blandly accept or reject the ideas without perceiving the contributions as any sort of challenge from the nursing staff. Afterwards, the medical students fill the nurses in on additional details of the discussion, if the nurses were absent from the conference or from rounds. Apparently not all medical students learn of this game, however.

Both nurses and physicians are said to lack insight into the others' knowledge base, educational experiences, professional goals, and values regarding patient care (Brockhaus & Richardson, 1986; Kalisch & Kalisch, 1982). Staff nurses in particular chafe at times under the burden of physicians' orders to provide what seem like, and may genuinely be, unnecessary treatments and procedures. These nurses may request that some orders be discontinued, which

in the eyes of the physician are naive requests. He assumes the nurses are indifferent to patient welfare and possibly guilty of neglect. Over time he begins to automatically discount suggestions and requests from the nursing staff (Brockhaus & Richardson, 1986). Because each group cannot seem to grasp the other's perspective, many productive alliances are never formed.

Women who choose nursing as a career: some superficial characteristics. Green (1988) reported that 35% of nursing students come from families with incomes of less than \$25,000 per year, while only 25% of other college freshmen do so. These data came from an American Council of Education survey of full-time male and female students entering two- and four-year colleges and universities. As such, the survey would exclude students entering hospital schools of nursing which grant diplomas instead of academic degrees. Nonetheless, it is probably safe to assume that nursing attracts students from lower socioeconomic backgrounds.

Green (1988) also reported that the parents of nursing students are somewhat less likely to have attended college, when compared to parents of students in other major fields of study. The difference is no longer great, however--57% for parents of nursing students versus 66% for parents of

other students. In the past, nursing students were known for being first-generation college attenders.

Nursing students also enter college with less illustrious academic backgrounds. Their Scholastic Aptitude Test scores are significantly below national averages, and their high school grade point averages are lower than average (Green, 1988). Bergman (1974) reported that nursing students at University of Alabama in Birmingham had lower American College Testing scores and lower grade point averages than medical technology and physical therapy students at the same institution.

Time of career selection for nurses appears to be earlier than that of women who elect to enter social work. A study of 100 undergraduate nursing and social work students showed that those in nursing tended to make their choice in grade school or high school, while social work students generally made a choice during the sophomore year in college (A. J. Davis, 1969). Flanagan (1982) commented that the childhood or adolescent decision to enter nursing is probably an unwitting one.

The most frequently cited reason for selecting nursing is "to help others" (Knopf, 1972, p. 14). Muff (1982c) wrote that many young women have been openly assured that working as a nurse will improve their chances of finding a marital partner and better enable them to care for

children. Byrne (1982) put forth the idea that nursing attracts women who wish to retain a dependent status in their employment.

Career orientation among nurses appears to be weak. Buxton (1988) commented that for most nurses the job represents only supplemental income, and that a number of nurses hope to retire from employment upon marriage. Dean (1978) cited the fact that few nurses join any professional organization. Moore and others (1978) utilized their survey to confirm an earlier report that nursing students are much more committed to the traditional feminine roles of family life than to professional involvement.

Vandever (1978) administered the Bem Sex-role Inventory to 122 nursing students and 560 female freshmen at the University of North Dakota. Fifty-one percent of nursing students were classified as stereotypically feminine, while only 43% of the female freshmen were categorized as such. What Vandever did not do was apply any statistical tests to see if the two groups of subjects were enough different to reflect two separate populations. However, the investigator felt able to state that nursing faculty have reason to be concerned about lack of assertiveness and risk-taking among their students, on the basis of the study results. Loo (1983) administered the Attitudes Toward Women Scale to 100 Canadian nursing

students and found that they were more conservative in their outlook than other female undergraduates.

The attitudes of nurses toward the feminist movement may have some bearing on their willingness to adopt assertive roles in the health care setting. Moore and others (1978), in their survey of nursing students described earlier, found that nursing students scored lower on the Feminism II scale than the instrument's originator indicated would be necessary to reflect support for the women's movement. However, nursing students scored higher on the scale than did women in other majors, including those women who were in academic programs that had traditionally been closed to women. Nursing students also scored higher on feminism the farther they progressed in the nursing program. Moore and others conducted their study in the Pacific Northwest, however. Perhaps different results would be obtained in other areas of the country. Kenig (1987) implied that nurses in the South would be less sympathetic to the women's movement because a large percentage of them are not college educated, and they are more likely to hold conservative political views.

Socialization of nurses by educators. For many years nursing relied on the apprenticeship method of training nurses (Leininger, 1970), and nursing students were

expected to put in long hours caring for hospitalized patients. Students were housed in dormitories attached to hospitals, where they were supervised by "dorm mothers" (Kalafatich & Moushey, 1986). Authoritarian control pervaded all aspects of the students' lives. According to Lowery-Palmer (1982), "Nurses were taught to be obedient and docile and to accept poor working conditions and stringent discipline. Repressive educational practices instilled respect for authority and a spirit of unquestioning loyalty to the institution and physicians" (p. 191).

Apparently the teaching methods and nature of teacher-student relationships did not encourage autonomy and critical thinking on the part of nursing students. Often the nursing instructor would exhibit considerable mistrust of a student's judgment. Furthermore, nursing students observed their clinical instructors engaging in the same sort of submissive behavior with authority figures displayed by other nurses. Students were rewarded for conformity. They were not encouraged to speak out (Lowery-Palmer, 1982). Now, most nursing programs have moved to the university setting, but some hospital schools of nursing are still in operation.

Some effort has been made to examine how much preparation nursing students receive for multidisciplinary

work. Ducanis and Golin (1979) conducted a survey of professional schools representing a number of disciplines. Nursing schools were most likely to state that although they had no formal course on the topic, they did try to incorporate the subject matter into other courses.

Snyder (1981) conducted an in-depth study of three nursing programs in an effort to determine what kind of preparation students received for work with other disciplines. Her methods included content analysis of philosophy and goal statements, review of course outlines, use of questionnaires with faculty and senior students, and observation of nursing students in the clinical setting. She found that all three schools advocated teaching students about health care teams and supported the concepts of teamwork. Observation revealed that students had few contacts with professionals from other disciplines in the clinical setting, however. Also, 50% of the two-year degree students, 33% of the hospital training school students, and 16% of the baccalaureate students reported that they had had no actual exposure to health care teams. Snyder expressed concern about whether the nursing schools' curricula adequately met students' needs.

Litwack (1971) told of reluctance by nursing faculty to use persons from other disciplines as resources, which he interpreted as parochialism on the part of nursing

educators. If this should be the case, educators may be sending an implicit message to students that multidisciplinary efforts are not relevant to professional nursing.

Socialization of nurses by nurses: learning on the job. Nurses have been found to conceptualize their roles in a variety of ways. Once a nurse enters the practice setting as an employee, she is shaped by the prevailing role conceptualizations of that setting and may adopt congruent attitudes and behaviors over time. Examination of the various role conceptualizations that have been identified among nurses is pertinent here because these models for nursing practice could easily influence a nurse's decision to contribute or not contribute her observations and ideas in team conferences.

Leininger (1970) classified nurses into two cultures, the old and the new. The new culture represents assertiveness, independence and collegiality with other disciplines for the nurse, as well as scientific and rational thought. The old culture emphasizes the nurse's role in providing for the physical comfort of the patient, attending to his or her needs as dictated by the immediate circumstances, and carrying out the technical tasks that have been specified by others. This culture cherishes efficiency and scorns intellectual activities such as

reading, inquiry and research. Nurses who are inclined to pursue these activities are suspected of lacking the technical skills needed to provide patient care. The old culture nurse is a doer and the new culture nurse is a thinker.

Style of practice can be fairly easily traced to the type of educational program from which each nurse comes. D. C. Feldman (1977) remarked that nurses graduated from a hospital training school "feel the mark of a good nurse is the ability to keep on schedule, to handle all patients quickly and efficiently, and to be solicitous of the attending physician's demands" (p. 807). He cited the university-prepared nurses in contrast, explaining that they prefer to take a holistic view of the patient, including attention to psychological needs, and they expect to play a role in diagnosis and treatment decisions.

Pankratz and Pankratz (1974) developed a written research tool which determined rejection of traditional nursing role limitations. Nurses in community hospitals were the least rejecting. The researchers pointed out that the vast majority of these nurses had earned diplomas from hospital schools. These subjects were followed by nurses at university hospitals, psychiatric nurses, and nursing leaders, in that order.

A more elaborate system of role conceptualizations was devised by Corwin (1961). He identified three major role conceptualizations, one of bureaucratic orientation, another of professional orientation, and a third of service orientation. The bureaucratically oriented nurse views herself as a hospital employee who has been retained by the hospital to carry out procedures. She stresses efficiency. The professionally oriented nurse is more dedicated to maintaining the profession's standards and values than she is to serving the employing institution itself. She stresses achievement of goals. The service-oriented nurse perceives herself as being on a mission to serve humanity.

Corwin (1961) explained that any one nurse will probably hold all three orientations at the same time, but to varying degrees. He characterized diploma nurses as tending to be high on bureaucratic orientation but low on professional orientation after graduation. Degree students presented the opposite picture. This is not to imply that type of educational program leaves an indelible stamp on each of its graduates. Nurses' values are known to shift over time.

Kinney (1985) used Corwin's instrument to study 101 nursing students and recent nursing graduates. She also employed instruments designed to measure sex role orientation and assertiveness. Selected findings included

high femininity and high degree of assertiveness correlating significantly with professional role orientation. Kinney acknowledged that the finding did not coincide with conventional thinking, which regards assertiveness as masculine, but she offered no explanation for the result. Many subjects scored high on at least two role conceptualizations. Bureaucratic and service roles seemed to be almost mutually exclusive, however.

Nurses also form impressions of what constitutes appropriate professional behavior from observing the specific acts and judgments of their peers. One such impression may be the idea that nurses do not engage in professional teamwork among themselves. The following excerpts from the literature hint at such a problem among nurses. Massey and Reimels (1986) told of an instance when a nurse did not consult other nurses for needed information, even though it could have readily been obtained in that manner. They wondered if nurses tended to avoid acting as consultants to each other, and their informal efforts to solicit opinions on the subject confirmed their impression.

In the course of providing assertiveness training to nurses, Numerof (1980) found that nurses did not rely on each other as sources of professional information. Their concerns about appearing uninformed kept them from seeking

assistance. Apparently it can be difficult for nurses to say, "I don't know." These characteristics could certainly make nurses reluctant to join multidisciplinary teams.

Lowery-Palmer (1982) conducted an anthropological study of nurses in a coronary care unit in a California hospital. Nurses claimed to make decisions based on patients' needs, but the important factors in their decisions were found to be time of day or shift, the preferences and characteristic behaviors of the attending physician and nursing supervisor, the customary manner of interaction between the individual nurse and the two aforementioned parties, the nature of the relationship between the attending physician and the nursing supervisor, the amount of staff available, as well as the level of staffing in other departments. It seems plausible that decision-making along these lines would not prepare nurses very well for multidisciplinary teamwork, where other considerations are regarded as more important.

Trauma and travail: will the nurse's spirit be extinguished? The social forces that are brought to bear in molding the nurse are certainly not benign in their effects. Significant personal and professional consequences can be identified. The ramifications are profound. The entire system is affected by what the nurse

is and by what she is not. At this point a partial recapitulation of the socialization of nurses and a further exploration of the effects will be undertaken.

The nurse, as she currently functions, is a prime target for exploitation by others. According to Numerof (1980), "Exploitation comes in the form of both subtle and blatant attempts to induce guilt" (p. 1796). As evidence, she cited nurses' attempts to fill any and all requests, without realizing that some of the demands are unreasonable. Schutzenhofer (1987) seconded this view, explaining that nurses sometimes serve as janitors and physical therapists on second and third shifts, in addition to completing their nursing duties.

The quandary for the nurse is that she likes to think of herself, or at least of her profession, as capable of being all things to all people. Wessen (1972) termed this the nursing ideology and traced its origins to the fact that nurses are a subjugated class of workers whose status is ambiguous. Furthermore, non-professional and professional workers are increasingly specializing in various portions of patient care, a change which contributes to an ebbing of her status. Thus, she adopts or is taught an ideology that emphasizes her seemingly unique contribution to patient care. According to Wessen, "this idealistic aim of treating the 'whole patient'

involves not merely a desire to care for the patient's mental and spiritual condition as well as for his body; it extends to the nurses' taking full responsibility for all the care which is given to the patient (other than by the doctor)" (p. 338). As a consequence, holism, as perceived by the nurse, drives her to resent the intrusion of other allied professionals. "The ideology of the nurse will not permit her easily to accept the competence of people other than herself and the doctor to deal with patients" (p. 338).

In other words, the nurse has not yet been reconciled to the idea that multidisciplinary teamwork could also be a path to holistic patient care. In all probability, changing to the team approach looks like more of a threat to her already uncertain status than an opportunity to gain status in the social structure. However, as much as nurses cherish the notion of personally providing holistic care to each and every patient, the work load is often such that "the ideology of the nurses . . . is honored more in the breach than in the observance. The . . . intangible matter of care for the whole patient . . . sometimes becomes more a theoretical goal than an actual achievement" (Wessen, 1972, p. 340). This author contends that nurses would do well to reexamine their ideology and consider

multidisciplinary teamwork as the road to holistic patient care.

Nurses seek satisfaction in their work. It is only reasonable to expect that they would do so. Sometimes when other routes are blocked, they find that satisfaction by courting the approval of the physician. However, the danger is that in seeking the physician's praise they may abandon their allegiance to professional standards (Kalisch & Kalisch, 1982). This can have alarming consequences. For example, Hofling, Brotzman, Dalrymple, Graves and Pierce (1966) studied 22 nurses who transcribed a telephone order for an unfamiliar drug (actually a placebo), to be given to one of their patients at twice the recommended dosage. None of the nurses knew the voice on the telephone, but 21 nurses accepted the speaker's assertion that he was a doctor. The latter group of nurses then attempted to obtain and administer the medication. Blind obedience is just one possible outcome of the abrogation of professional standards in the wake of seeking approval from others. Additional explanations could be found for the above behavior, of course.

The phenomenon of horizontal violence among nurses is a troublesome one. Dean (1978) said that it often takes the form of looking for faults in the technical skills of nurses who have earned a degree instead of a diploma. One

also wonders if this phenomenon could limit the support given to patient care plans designed by the multidisciplinary team, if the nurses responsible for implementation of the plan or some aspect of it were not actual members of the team. One variation of horizontal violence is lack of support for nurses who have been promoted to supervisory levels. Once they are promoted they may be unable to elicit cooperation from their former nurse co-workers (Numerof, 1980).

The sequelae of the many hardships imposed on nurses include low morale (McNerney, 1988), pessimism (Smythe, 1982), and so-called burn-out. Components of burn-out include emotional detachment and reduced interest in patients and other work-related activities, dissatisfaction with work which may progress to poor job performance, and reduced self-esteem. Numerof (1980) expressed concern about the potential stunting of personal and professional growth when nurses continue to work under conditions such as those that could lead to burn-out. She imagined that lack of growth would encourage persons in other disciplines, as well as nurses themselves, to have low expectations regarding what nurses can do. I. G. Mauksch and Miller (1981) posited that nurses who have little regard for their own abilities could not effectively enter

into egalitarian relationships with other health care professionals.

Snyder (1981) construed the literature to indicate that nurses' lack of assertiveness would impair their function as competent team members. Nurses have been observed to remain mute at multidisciplinary team conferences. Byrne (1982) speculated that nurses do not wish the health care team to have greater expectations of them. She imagined that nurses feel threatened by the idea of being more accountable and responsible.

Weiss and Remen (1983) studied four task groups over 20 months to learn more about nurses' behavior in multidisciplinary discussions. The groups were created specifically for the study and consisted of consumers, nurses, and physicians. They were told to address the problems in nurse-physician relationships and propose solutions. The researchers observed that nurses did not exhibit identification with their own profession, tended to invalidate their own expertise, and were reluctant to assume more professional responsibility. However, the investigators cautioned against generalization of the findings due to small numbers of nurse subjects.

Studies of Nurses' Personalities: A Look at Internal Motivation

In trying to explain and predict nurses' behavior as either verbally active or inactive participants in multidisciplinary team meetings, it is important to remember that the nurse is always faced with a choice regarding what he or she will do. As has just been shown, culture automatically eliminates some of the choices (Tyler, 1978). Beyond that, it becomes necessary to examine the internal characteristics of individual nurses. A brief review of motivation theory follows, as a means of providing orientation to the ensuing discussion of personality studies.

A cursory examination of motivation theory. Porter (1976) identified three basic motivations in interpersonal relationships: "wanting to be of genuine help to others, wanting to be the leader of others, and wanting to be self-reliant and self-dependent" (p. 302). However, behavior is not always a reliable indicator of motivation. In other words, absence of a behavior, such as assertiveness, does not mean that internal motivation to be assertive is absent (Gordon & Goble, 1986).

The crux of the issue is how to determine the means by which an individual nurse decides to express a behavior

which is congruent with his or her underlying motivation. Athanassiades (1974) offered the idea that prior to taking action, persons assess "path-goal instrumentalities". This is interpreted by the author to mean that a nurse would have a mental grasp of the required steps in a course of action and that no barriers to that course of action would be apparent. Athanassiades explained that because uncertainty is always present in the assessment of path-goal instrumentalities, the individual must also rely on subjective probability in order to make a decision. This he defined as the expectation of success plus propensity to take risk. Thus, if a nurse saw an opportunity to assert herself in a multidisciplinary discussion, he or she might not do so, out of low expectations of success and little inclination to take risk.

Tyler (1978) painted a much broader picture of the mechanisms used to translate motivation into behavior. She termed these mechanisms "possibility processing structures". She identified a variety of concepts that can all be regarded as fitting under that heading. These are schemas, strategies, personal constructs, cognitive style, values, and interest patterns, such as vocational interests. She added that "some of the ways individuals acquire for screening and organizing possibilities are not

classifiable into the common psychological categories" (p. 145).

Tyler (1978) spoke of some persons who adopt the behaviors of others in their immediate company as a strategy for choosing behavior. She also referred to women who conform to traditional gender roles. She saw them as using a strategy of "doing what people expect you to do" (p. 147). At this juncture, it is appropriate to mention that Damrosch, P. A. Sullivan and Haldeman (1987) found nurses enrolled in graduate school endorsed direct and rational communication strategies for resolving hypothetical conflicts with nursing supervisors and physicians. The possibility processing structures for these nurses apparently incorporated this latter approach.

Porter (1976) mentioned two attributes that could easily fit into Tyler's (1978) concept of possibility processing structures. One was the inclination to repeat previously gratifying experiences (Porter, 1976). The other was concepts and beliefs about how one should interact with others. An added feature of Porter's theory is that motivation can change with changes in stimulus conditions. Conditions of relative harmony in interpersonal relationships, and of conflict and opposition, are the two stimulus conditions he described. He argued against the premise that personality traits, or

consistencies in an individual's repertoire of interpersonal behaviors, remain constant throughout all situations (Hogan & Nicholson, 1988).

It is safe to assume that unexpressed behaviors could possibly be demonstrated by an individual at some time in the future, if underlying motivation is present and the possibility processing structures do not eliminate the choice of those actions. For this reason, an examination of the literature regarding nurses' personalities could be enlightening. It may permit insight into motivational processes, leading to explanation of current behavior and prediction of future behavior.

Studies employing the Edwards Personal Preference Schedule (EPPS). The EPPS (Edwards, 1959) has a long history of use in nursing research and has been used more with nurses than with most other occupational groups (Radcliffe, 1965). It is designed to yield a ranking of preferences for 15 different needs for each subject. Aside from the fact that the EPPS is not a well-validated instrument, it is also plagued by other psychometric deficiencies. These problems stem from the designer's endorsement of the conversion of raw scores, which are in the form of ordinal data, to group means and standardized scores, which would theoretically require interval data.

Distortion of the ranking of preferences occurs when this transformation is carried out (Radcliffe, 1965).

Unfortunately, test users have complied with the instructions and disregarded the criticisms of reviewers on this point.

Perhaps the large body of work that has been done with the EPPS among nurses can still have some meaning, if one considers the possibility that the nurses studied were homogeneous groups who were particularly extreme in their preferences for selected needs. If that were truly the case, then the numerical values of the group means for the extreme preferences might still be sufficiently pronounced to enable the reader to discern which preferences represent the strongest needs. The work reported here is assessed in that light. In addition, when examining a large number of studies, it follows that if similar patterns of needs recur time and again, the reader is better able to conclude that the salient preferences do indeed reflect the characteristics of the population under study.

Ten EPPS studies were reported between 1958 and 1976, using nursing students as subjects. In nine of those studies, the need to be nurturant appeared among the highest three preferences (Bailey & Claus, 1969; Caputo & Hanf, 1965; Gardiner, 1976; M. D. Gynther & Gertz, 1962; Jones, 1975; Levitt, Lubin & Zuckerman, 1962; Reece, 1961;

Smith, 1968; Zuckerman, 1958). The need to engage in deferential behaviors appeared in the first three preferences in only one study (Bailey & Claus, 1969), while it appeared among the lowest three preferences in two later studies (Gardiner, 1976; Jones, 1975). Low preferences for dominance were reported in 2 of the 10 studies (Caputo & Hanf, 1965; Casella, 1968).

Other studies employed the EPPS with practicing nurses, graduate students in nursing and nurses in training programs to become nurse practitioners. Between 1957 and 1978 at least six such studies appeared. Only one study reported that practicing nurses ranked nurturance among the first three preferences (Caputo & Hanf, 1965). Three of the earlier studies showed nurses to express a high need for deference by placing it among the three highest needs (J. A. George & Stephens, 1968; Navran & Stauffacher, 1957; Navran & Stauffacher, 1958). In contrast, two studies reported in 1978 revealed that nurses placed the need for deference among their three lowest preferences (B. J. Burns, Lapine & Andrews, 1978; J. A. Sullivan, 1978). In terms of preferences for dominance, the 1958 study by Navran and Stauffacher showed medical-surgical nurses to rank this quality among their three lowest preferences. J. A. Sullivan's later work reported that nurses rated the need for dominance among their top three choices.

This overview of EPPS literature is not exhaustive, but it is probably representative. Some trends can be identified. Once nurses move from school to employment, the preference for nurturing others is less often expressed, it would seem. In former years, working nurses apparently acquired a higher preference for deference than they had possessed as students. However, the more recent studies show that practicing nurses are probably rejecting the deferential behaviors of the past. Similarly, there may be a change from low to high preference for dominance among nurses who are working in the field.

Thomas (1989) obtained EPPS data from 80 female graduate students enrolled in the College of Nursing at The University of Tennessee, Knoxville between 1986 and 1988. Only the raw scores have been determined in this study, avoiding the inappropriate computation of standard scores cited earlier. A preliminary examination of data from a randomly selected subsample of 13 subjects revealed that needs for nurturance were high. Specifically, 9 out of 13 subjects placed nurturance among their top three preferences, while none of the subjects rated it very low. The perceived need to be deferential to others was extremely low. None of the 13 subjects rated it in the highest three preferences, 11 of the subjects placed it among the lowest three preferences, and 6 of those subjects

chose deference as the very lowest preference of all. Preferences for dominance did not seem to follow any pattern, however. Other findings were high preferences for achievement and low preferences for abasement.

Kahn (1980) attempted to show that nursing students no longer differ from other female college students in their hierarchy of preferences according to the EPPS. She only reported results for autonomy and deference, however, stating that both groups' preferences were equal. Unfortunately, she included only 27 subjects in the group of nursing students and only 13 subjects in the control group. With such small numbers of subjects and the distortion introduced by the creation of group means, the study fails to shed light on the differences or similarities among these college women.

One of the most valid applications of the EPPS was reported by McClain (1978), who administered a preliminary questionnaire to identify women who espoused opposing sets of beliefs regarding women's roles. Only the most extreme members of each group were selected to complete the EPPS. These two groups were subsequently labeled feminists and non-feminists for the purposes of the study. Based on differences between group means, non-feminists were found to be significantly higher than feminists on preferences for nurturance and affiliation. Although the table shown

in McClain's report indicates the opposite relationship for affiliation, these data do not coincide with the text. McClain recently confirmed that the table is in error (E. McClain, personal communication, March 9, 1989). The two groups did not differ significantly in deference needs, although the transformation of ordinal data to interval data could have possibly obscured some real differences. To the extent that modern day nurses engage in traditional female thinking and behavior, studies of non-feminists may be useful in describing the current population of nurses.

Studies employing the California Psychological Inventory (CPI). Some of the more recent attempts at personality study in nurses have utilized instruments with higher reliability and validity, such as the California Psychological Inventory (E. Feldman & Crook, 1984). Gilbert (1975) studied 70 graduate students in nursing, using CPI data to compare the nurse subjects with published female norms. She reported that the graduate students were below female norms on socialization, self-control and need to make a good impression. The subjects' scores were higher than female norms for dominance, capacity for status, sociability, social presence, self-acceptance, tolerance, achievement via conformity, achievement via independence, intellectual efficiency, psychological-mindedness, and flexibility.

Dyer (1987) contrasted CPI data for baccalaureate students entering nursing programs in 1970 and in 1980 with published norms. Nursing students in 1970 were above the female norms for self-acceptance and flexibility, but below those means for capacity for status, sense of well-being, self-control, tolerance, need to make a good impression, achievement via conformity, and intellectual efficiency. In 1980, entering students were not significantly below the standard means for any scale. They were also above the means for dominance, sociability, self-acceptance, socialization, achievement via conformity, and achievement through independence. They were significantly lower than the 1970 group on flexibility and femininity, however. Dyer added that faculty reported more questioning and more argument about theoretical matters by students entering the nursing program in 1980.

Studies employing assorted psychometric instruments.

A study by Reich and Geller (1976) used Gough and Heilbrun's Adjective Check List to compare 163 nurses with established female norms. They found the nurses had higher scores on defensiveness, dominance, self-control, self-confidence, achievement, order, endurance, and nurturance, among others. The researchers found no significant difference between the two groups on deference. Reich and

Geller speculated that nurses are adopting a new view of themselves as assertive, independent women who are no longer willing to accept second-class status.

O'Hara-Devereux, T. C. Brown, Mentink and Morgan (1978) administered the Myers-Briggs Type Indicator to 63 family nurse practitioners and found that this group was strongly inclined to make judgments by relying on the feeling dimension rather than the thinking dimension. In other words, the nurse practitioners preferred to make decisions based on "how they matter to others rather than objectively . . . considering causes of events and where decisions may lead" (p. 1263). This was in contrast to some groups of physicians' assistants and physicians reported in the study.

Using Jackson's Personality Research Form E, V. D. George and Owen (1983) studied 40 registered nurses who entered a university in order to obtain a baccalaureate degree. In comparison to a normative sample of female college students, the RN students were higher on harm-avoidance and lower on impulsivity, which V. D. George and Owen interpreted as signs of low risk-taking, as well as a proclivity for concrete thinking and limited tolerance for uncertainty and ambiguity. The nurses were also higher on dominance and lower on abasement, seen as indicators of assertive, controlling behavior in these women. These

subjects described themselves in more socially favorable ways, suggesting a high need for approval. Other findings included higher ratings for nurses on achievement, nurturance, seeking of social recognition, and lower scores on playfulness, need for succorance, capacity for aesthetic perception, and need for abasement. The RN students and the female college students described in the norms were equal in terms of autonomy and interest in intellectual pursuits. Of course, the small number of subjects in this study prohibits generalization of the findings to other RN students.

Hanson and Chater (1983) used the Vocational Preference Inventory to study 122 registered nurses in graduate school. They found that of six personality types described by the instrument's originator, the nurses as a group scored highest on artistic, intellectual, and social categories, in that order. The other personality types are termed realistic, enterprising, and conventional. The artistic personality was described as someone who is expressive, original and sensitive. The intellectual personality would prefer to use intellectual skills in problem-solving. An extended definition of the sociable personality was not provided by the researchers.

Rendon (1987) used the Cohen CAD (Compliant, Aggressive, Detached) Scale to study 167 registered nurses

engaged in pursuing undergraduate nursing degrees. The instrument classifies subjects into three types called compliant, aggressive and detached. Nurses in this study scored higher on both compliant and detached characteristics. Rendon described the compliant individual as wanting to please others, seeking to be needed and appreciated by others, avoiding conflict, and accommodating the wishes of others. High levels of conformity are typical of the compliant personality type, as is non-assertiveness. Rendon speculated that the high scores on the detached scales might have been due to the subjects' re-entry into the educational system.

Levine, Wilson and Guido (1988) studied 200 registered nurses who were members of the American Association of Critical Care Nurses using Cattell's 16 Personality Factor Inventory. Compared with established female norms, the nurses were more assertive and self-sufficient. Levine and others interpreted this to mean that critical care nurses prefer to be task-oriented and efficient, and also like to be independent in solving problems. A report such as this one gives some balance to the studies of practicing nurses, because most of the reports focus on nurses who have returned to the university for undergraduate or graduate degrees.

Porter (undated) published an anecdotal report of nurses' responses to his instrument called the Strength Deployment Inventory (SDI). Although Porter claimed the SDI is only an educational tool, not a research instrument, he has published data on the reliability and validity of its three scales which are called Altruistic-Nurturing, Assertive-Directive and Analytic-Autonomizing. He claimed that a sample of nurses of unspecified size clearly placed themselves in the Altruistic-Nurturing dimension as determined by their responses to the instrument.

In 1983, Hafer and Ambrose studied 114 nursing students by using factor analysis of the data generated through four instruments: Inner and Other Directedness Scale, Materials Ambition Index, Achievement-Motivation Index, and Perception of Nursing questionnaire. The factor accounting for 63.7% of the variance showed nursing students to be what they dubbed "the insecure, other-directed doubter" (p. 71). This sort of individual was depicted as shaped by others' expectations, relying on others' standards as their own, changing their opinions to match those of others and being inclined to lie about their own opinions if they differed from those of their peers.

Overall, the recent work in personality study of nurses does not paint a unified picture. Elements of the traditional nurse are very much present, but some groups

seem ready to assume new roles. Few studies seem to be available on practicing nurses who are not actively pursuing a degree. More studies of those nurses would be helpful in assessing the potential abilities of nurses in general for multidisciplinary teamwork.

Summary

The perspective taken in this review of literature has been to move from the broadest to narrowest elements of concern in assessing the level of nurses' participation in multidisciplinary team conferences. The organizational environment has significant impact on whether the employing institution will provide suitable mechanisms through which nurses can engage in team care. In other words, the larger organization must endorse teamwork, for nurses to be able to practice as part of multidisciplinary groups. The nature of those teams, in terms of member composition and stage of group development, again has profound effects on the nurses' participation in those teams and the quality of team services. Lastly, nurses themselves seem to have certain characteristics which shape their preferences for teamwork and their style of interaction with other team members. No one element functions in isolation to make teamwork a success or failure, or a satisfaction or dissatisfaction. Understanding of multidisciplinary teams

and their members can only be interpreted through an examination of the whole system.

CHAPTER III

METHODS

The investigator conducted an observational study over a five-week period in 1988. Other methods of data collection were used to supplement the observational findings. The subjects were members of a multidisciplinary team working in a 350-bed private, acute care hospital in the southeastern United States. The team in question served a psychiatric unit for geriatric patients. The multidisciplinary group met twice a week for one hour to formulate treatment plans for those patients.

Description of Subjects

The team was composed of 10 members, 8 of whom were female and 2 of whom were male. Three female members represented the nursing profession, a fourth woman represented dietetics, another woman served as an occupational therapist, two women were social workers, and one woman functioned as a de facto physician's assistant. All women possessed professional qualifications appropriate to their fields. The two male members represented the fields of clinical psychology and medicine, respectively, for which they held corresponding academic degrees. Seven

of the group members held advanced degrees or were in the process of completing one.

Among the registered nurses in the group, a variety of educational credentials could be found. One possessed a Bachelor of Science in biology, a Master of Education in counseling and a Master of Science in Nursing. Another nurse possessed original certification as a Licensed Practical Nurse, followed by a Bachelor of Science in Nursing. She had almost completed a Master of Science in Nursing at the time of the study. A third nurse held a Bachelor of Science in Nursing degree. The RN who filled the physician's assistant role possessed a Diploma in Nursing and American Nurses' Association certification in psychiatric and mental health nursing.

A variety of ties linked the group members within the formal structure of the organization. One nurse filled the position of clinical coordinator for the in-patient unit. She supervised the nurse manager, as well as the two social workers and the occupational therapist, and was responsible for evaluating their performance as team members. The nurse manager supervised the nurse clinician who served on the team, as well as other nursing staff for the unit. Other nursing staff did not routinely attend team conferences, however. The psychiatrist held the formal title of Acting Medical Director through contractual

arrangements with the hospital administration. He supervised the RN who functioned as his assistant. The clinical psychologist served the team as a paid consultant. The dietitian reported to the hospital's dietetics department and was not directly supervised by anyone on the team.

The specialized unit and its multidisciplinary team had only been established for six months at the time of the study. Length of tenure as a team member ranged from one to six months, with an average length of service of approximately four months. Frequency with which individual members attended team conferences varied. Out of a total of 10 sessions, the number of meetings attended by any given member ranged from 4 to 10, with an average of approximately 8. All members were Caucasian. Ages of members ranged from 26 to 56 years. The average age in the group was 37 years.

Two team members submitted resignations during the observational period. Both persons remained employed at the original institution throughout the data collection phase, however, departing for outside employment immediately or shortly thereafter. The plans of the departing members were known to the other members of the team at the time of the study.

Data Collection Procedures

The investigator sought and received approval to conduct the project according to guidelines established by the Committee for Research Participation at The University of Tennessee, Knoxville. After gaining authorized admission to the clinical facility, the investigator met with the team in question and obtained signatures from each subject on two consent forms. One consent form addressed the project in general (see Appendix B). The other consent form addressed the audiotaping of team conferences (see Appendix C).

Team members were not informed of the exact purposes of the study, to insure that their behavior would not be unduly altered. They were told they were being observed as a means of studying effective team communication. Team members were allowed to seat themselves during the conferences in any arrangement they desired. Neither observer engaged in direct participation in any of the team conferences. When occasional participants joined the team meetings, the principal investigator obtained signed consent forms from those individuals prior to the group discussion.

The first four sessions were attended by the principal investigator only. She supplied two recording devices at

each of those meetings and prepared duplicate sets of audiotapes of the verbal interactions. She and the research assistant subsequently listened to the tapes at the Research Center, College of Nursing, where it was determined that the large number of female voices precluded accurate identification of speakers by anyone listening to the tapes. Arrangements were then made to have the research assistant attend the team conferences for the remainder of the study and function as the second non-participating observer.

Between the fifth and sixth sessions, both observers independently completed the SYMLOG Adjective Rating Form for each subject (see page 155 for detailed information regarding instruments). The form used was the revised version advocated by Bales, Cohen and Williamson in 1979. Following the tenth meeting, both observers again rated all individual subjects on the same instrument. However, the principal investigator modified the terms "never", "rarely", "sometimes", "often", and "always" to "disagree", "slightly agree", "moderately agree", "moderately to strongly agree", and "strongly agree" (see Appendix A). This modification was made in order to eliminate ambiguities inherent in the first set of terms. For instance, the possibility of rating a largely passive participant as "always" dramatic or expressive, just

because all overt behavior of the individual could have been characterized as such, needed to be avoided.

Raters adhered to the recommendations of Bales (Bales et al., 1979) to rate all subjects on a given item before proceeding to the next item on the rating forms. Raters also followed the published recommendation to rate subjects on the basis of the most applicable adjectives shown for each item in the instrument, ignoring one or more adjectives if they did not seem to apply. The observers did not discuss individual subjects among themselves until the last set of ratings had been completed, in order to avoid the possibility of one observer biasing the ratings of the other.

The first set of rating forms was subsequently disregarded and did not contribute to the data used for analysis. The second observer had observed only one session at the time of making the first set of ratings. This was deemed too little exposure to the subjects to produce reliable ratings. The principal investigator regarded the activity as a training exercise for the second observer.

The Edwards Personal Preference Schedule test booklets and forms were distributed to study subjects at the second session. The booklets and forms were enclosed in a large envelope which contained general instructions for handling

the contents of the envelope as well as a form labeled Biographical Questionnaire (see Appendix D). Seven subjects returned the EPPS test forms over a period of eight months. These subjects represented the professions of dietetics, nursing, occupational therapy, and social work. The physician's assistant was also among the group of subjects responding to the EPPS. Seven subjects completed the Biographical Questionnaire by hand. The demographic data for the remaining subjects were gathered by the principal investigator via brief telephone interviews with the subjects in question. Questions regarding gender, race, and reason for choice of profession were omitted from those interviews, as the first two items had been readily discerned through observation and the last question was judged unlikely to elicit a thoughtful response during a telephone conversation.

Interviews were conducted with the three team nurses employed by the hospital. The principal investigator spoke with each nurse privately for approximately 30 minutes. The schedule of questions used appears in Appendix E. The principal investigator also compiled some descriptions of the topographic features of interpersonal activity observed during the team conferences.

Subjects were debriefed upon request during February 1989. Debriefing sessions lasted 20 to 30 minutes and

included the results of each individual subject's own EPPS, as well as a discussion of the study rationale, methods and findings. Nine individuals were debriefed in person, including a nurse who had attended only one team meeting and who was not rated by the observers. Another subject received test and study results by mail. One subject did not obtain debriefing although arrangements had been made to provide it.

Detailed Description of Instruments

The SYMLOG Adjective Rating Form

SYMLOG, the acronym standing for systematic multiple level observation of groups, was coined by the originator, Robert F. Bales. The instrument is organized around a theoretical SYMLOG space, comprised of three hypothetically orthogonal dimensions. Those dimensions have had numerous labels applied to them. Because they are bipolar in nature, the most frequently used terms are dominance-submission, friendliness-unfriendliness, and task-orientation versus emotional expressiveness (Bales et al., 1979).

The three dimensions used in the SYMLOG model have been chosen because they are thought to represent the dimensions that all persons normally use when interpreting the behavior of others. It is human nature to determine

what the social consequences of another's behavior are likely to be for oneself. That is the stance the observer using SYMLOG is expected to take, barring no other instructions are given. Bales (Bales et al., 1979) acknowledged that the rating system is not objective, but then, neither are the subjective views of persons who are engaged in group interaction. Therefore, averaging the subjective impressions of a group of raters probably comes as close to the truth in approximating group dynamics as any other method.

Bales (Bales et al., 1979) referred to the SYMLOG concept as a grounded theory, generated inductively from many years of work with elaborate observational research strategies and techniques. However, he is not reluctant to point out that the vast majority of theories in social psychology are consonant with the SYMLOG paradigm. In fact, he regards SYMLOG as an integrating force in the study of human interaction. This has led him to pronounce SYMLOG to be "the new field theory in social psychology" (Bales, 1985, p. 17).

The task-oriented versus emotional expressiveness dimension requires some explanation. Bales and others (1979) insisted that emotional expressiveness, or what is often called the backward direction, actually represents two components which are both opposite to task orientation.

One part is the emotional expressiveness while the other part represents withdrawal from the group, either through active denunciation of the group activity, blithe refusal to participate, or passive neglect of the group task.

The apparent logic of this duality in what would fittingly seem to require a unified concept can be better addressed through examination of the three-dimensional model of the SYMLOG space. This is shown in Figure 4. The three dimensions form the three axes in the cube diagram. The three dimensions can also be conceived as six unipolar directions, often referred to casually as up (U), down (D), positive (P), negative (N), forward (F), and backward (B). The cube is divided into 27 smaller cubes, each representing one of all possible combinations of the three dimensions. These become important constructs in themselves, each believed to represent a certain pattern of interpersonal behavior that can be exhibited by individuals who are interacting in groups. Thus "backward behavior" which is emotionally expressive falls into the portions of the cube that also represent friendliness, while "backward behavior" which is rejecting of group activity falls into the portions of the cube that also represent unfriendliness or hostility (Bales et al., 1979).

The three-dimensional diagram is useful for introducing the SYMLOG theory, but it is impractical for

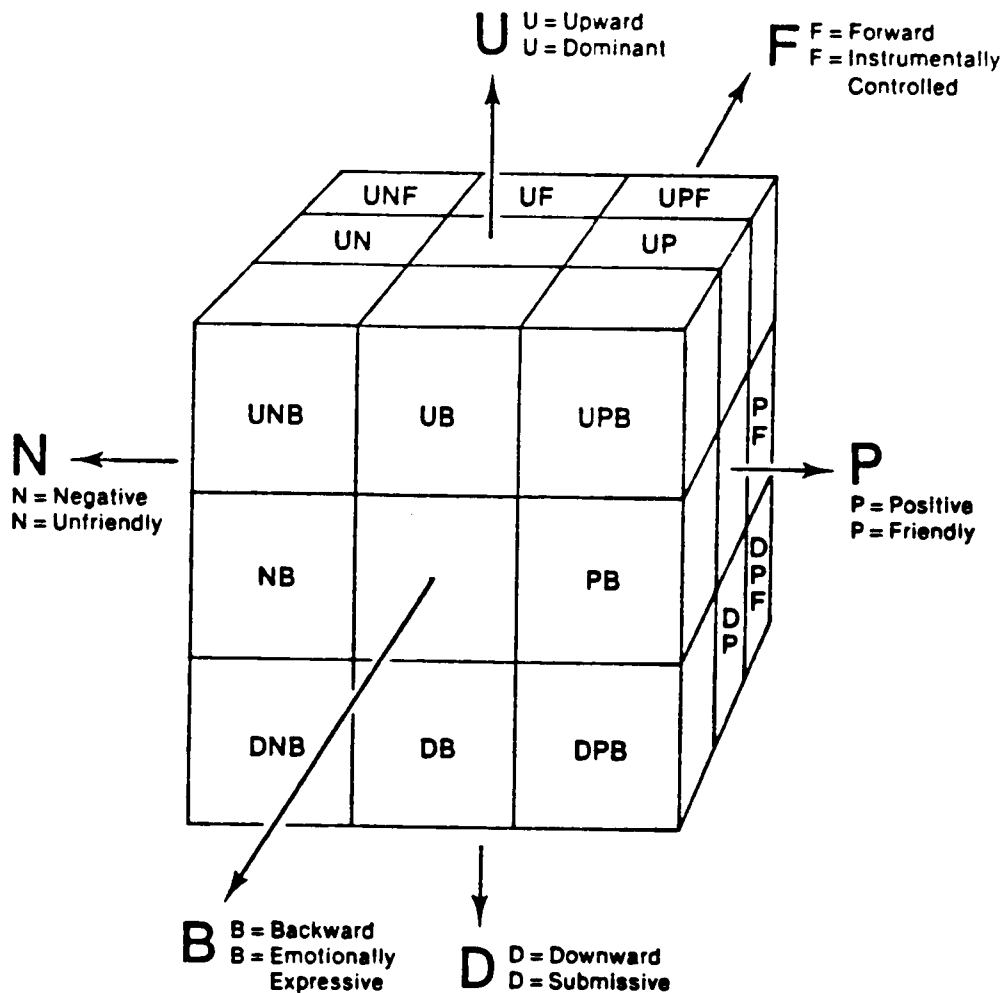


Figure 4. Three-dimensional conceptualization of the SYMLOG space. (Letter codes assigned to individual cells correspond to the SYMLOG directions shown above. Two and three letter codes represent combinations of two or three SYMLOG directions, respectively.)

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use in depicting actual groups. As a result, the SYMLOG field diagram was developed to serve that purpose. This is a two-dimensional figure showing friendliness-unfriendliness as the horizontal axis and task-orientation versus non-task-orientation as the vertical axis.

Dominance-submission can only be shown by other means. First, individual subjects are plotted on the diagram based on their own positive-negative and forward-backward scores, which can be derived from the SYMLOG Adjective Rating Form. The relative dominance of individual subjects is reflected in the sizes of the circles placed around each subject's center point. Larger circles represent greater dominance than do smaller circles (Bales et al., 1979). Figure 3 showing the Coalition of Colleagues, displayed in the previous chapter on page 82, is a field diagram.

The SYMLOG Adjective Rating Form was specifically constructed to provide one item to assess each cell in the SYMLOG space, except for the neutral zone in the center. The items are all labeled with the corresponding codes, thus enabling the user to match the descriptive items to the appropriate segments of the three-dimensional diagram, if desired (see Appendix A). Every rater evaluates each subject on a separate rating form and on all 26 dimensions. Bales (1988) likened this to inserting a "directional

probe' into the rater's complex global perception of the person or concept being described" (p. 330). He regarded this as superior to using merely three separate bipolar scales on which each subject could be rated. He claimed that the latter approach would yield too simplistic and superficial a picture of persons engaging in interpersonal behavior. Cohen also argued that bipolar opposites would function to decrease conceptual clarity (Bales et al., 1979).

Once raters have completed rating forms, the nine items contributing to each of the six directions are summed. Then the two bipolar values for each dimension are converted to the difference between those two. Finally, the three dimensional scores are converted to one location in the SYMLOG space. The three transformations of SYMLOG data are summarized in Figure 5. Usually raters' results are averaged to produce an average field diagram depicting the group in question as a whole (Bales et al., 1979).

The field diagram is regarded as a hypothetical arena in which any and all potential behaviors can occur. Persons studied by the SYMLOG method are understood to be responding to an "interactive field of influences" (Bales, 1988, p. 322) within that space. These pressures are largely psychological in nature, and much of what is relevant to the investigator is hidden from view. However,

1. Nine item scores are transformed by summation into a directional score. There are six sets of item scores.

U	DP	UP	UNF	UPF	UNB
UP	DPF	UPF	UN	UF	UB
UPF	DF	UPB	UNB	UNF	UPB
UF	DNF	P	NF	PF	NB
UNF	DN	PF	N	F	B
UN	DNB	PB	NB	NF	PB
UNB	DB	DP	DNF	DPF	DNB
UB	DPB	DPF	DN	DF	DB
<u>UPB</u>	<u>D</u>	<u>DPB</u>	<u>DNE</u>	<u>DNE</u>	<u>DPB</u>
U	D	P	N	F	B

There are six distinct directional scores that result.

2. Two directional scores are transformed into a dimensional score.

U	P	F
<u>-D</u>	<u>-N</u>	<u>-B</u>
UD	PN	FB

There are three separate dimensional scores that result: U-D, P-N and F-B.

3. Three dimensional scores are transformed into one location within the SYMLOG three-dimensional space.

U-D scores are plotted on the z axis.
 P-N scores are plotted on the x axis.
 F-B scores are plotted on the y axis.

Key

U = Up or dominant D = Down or submissive
 P = Positive or friendly N = Negative or unfriendly
 F = Forward or task-oriented B = Backward or expressive

Figure 5. Three transformations of SYMLOG scores.

the group shapes and adapts its behavior patterns in various ways over time. By studying these patterns of response, much can be learned about the nature of individual groups and the persons within them.

Reliability of the SYMLOG Adjective Rating Form. Two aspects of reliability have been addressed in the literature. They are internal consistency and interrater reliability. Because the SYMLOG Adjective Rating Form is not a category coding system, interrater reliability has rarely been conceived in terms of percent agreement, which is the traditional approach. All of the work described here construed interrater reliability as either split-half reliability or parallel forms reliability.

Cohen (Bales et al., 1979) utilized two procedures involving measurement of agreement between sets of raters, but based all the studies on the original form, rather than the revised version. In spite of this limitation, some of the results will be reviewed here because much of the work was done with untrained, or inexperienced raters, similar to the situation described in this thesis. Cohen obtained the aggregate scores generated by two groups of 16 untrained raters. He used a split-half technique to accomplish the division of the larger group into two and then correlated the aggregate scores for each item.

Correlations ranged from .74 to .93, with a mean correlation of .88.

For the three dimensions, the correlations were .98 for up-down (U-D), .99 for positive-negative (P-N), and .98 for forward-backward (F-B). The correlation coefficients for the three SYMLOG dimensions were based on Gulliksen's formula, which incorporates item-to-scale correlations, as well as the standard deviations of the items. This approach provided corrected item-to-scale correlations. Cohen (Bales et al., 1979) did not regard any of the above work as establishing interrater reliability, however--merely item clarity.

However, Cohen (Bales et al., 1979) also correlated the ratings of 64 inexperienced raters with the ratings of another group of 24. Using Gulliksen's formula, he got exactly the same correlation coefficients for the three dimensions, and he labeled these results an indication of item-for-item interrater reliability. He likened the above process to the determination of parallel forms reliability.

Item-to-scale correlations have been reported by Rywick (1987a) for the revised form and are seen here as a means of establishing internal consistency for the various scales. Rywick's data resulted from the ratings of 24 college students on 16 historical and fictional characters. The positive-negative scale proved to be the most

satisfactory, with only one item having correlations in the undesired directions. However, the dominance-submission scale had two items that apparently carried meaning opposite to that intended, as well as a couple more items that provided positive correlations with both ends of the bipolar scale. The forward-backward scale produced much worse results than the previous two. Eleven of 18 items corresponded either positively or negatively with both ends of the scale. In other words, respondents judged them as indicators of both ends of the scale or as indicators of neither end of the scale. Two of the items had correlations in the directions opposite to what was expected. Thus, the F-B scale seems to be fraught with problems.

Cohen's (Bales et al., 1979) work may shed some light on the problems with the forward-backward dimension in several ways. He found that trained observers had higher reliability on the F-B scale for the original form, but not on the other dimensions. He also pointed out that the situation being studied may put extra emphasis on certain dimensions, leaving other scales to have little impact on the final ratings. He cited the ratings of family interactions as placing much emphasis on P-N and little emphasis on F-B, which he judged to be probable in a home

setting where members engaged in more socializing than task-oriented behavior.

Bales, Koenigs and Roman (1987) attempted to address the widespread criticism of F-B scale deficiencies by studying 272 adults from the fields of either business or education. These persons were members of training groups who had used SYMLOG to rate other group members. The raters were also asked to fill out a rating form in response to a question about how they wished to be perceived by others. The investigators concluded that persons who wish to be seen as functioning in the positive-forward (PF) quadrant of the field diagram were more likely to rate others as PF. Those members who preferred to be seen as primarily positive-backward (PB) tended to assign more ratings in the PB quadrant. Thus, if the data used to generate item-to-scale correlations are derived from ratings by individuals who all prefer just one of the SYMLOG locations, the correlations for some items will be attenuated.

Cohen (Bales et al., 1979) also took pains to explain that the structure of the Adjective Rating List is such that perfect item-to-scale correlations can never be achieved for a number of items, even with the use of Gulliksen's formula. Some items measure only one dimension, but a number of them measure two dimensions, and

others measure all three. Therefore, "items should not contribute equally to the making of particular scales" (p. 255). If a hypothetically perfect set of items could be devised, the items measuring two dimensions could at most achieve item-to-scale correlations of .70, and items measuring three dimensions could only achieve a value of .58. Since perfection is not to be expected in any case, Cohen pointed out that 60% of the ideal value would be a reasonable criterion for retention of an item in the instrument. In that case, item-to-scale correlations on the order of .6, .42, and .35 would suffice.

Witmer, Pond and Love (1984) studied intrarater reliability among four raters who had observed videotaped marital counseling sessions in a correctional facility. Witmer and others obtained correlation coefficients ranging from .57 to .92, with a mean of .89. These results were aggregated across all three dimensions. They also studied interrater reliability among the same four raters and obtained coefficients of .28 to .95, with a mean of .71. Rywick's (1987a) results for interrater reliability were .91 for U-D, .95 for P-N, and .88 for F-B, using the 24 raters described earlier. Wunder (1987) used two raters to evaluate 7 to 10 subjects over eight sessions on the SYMLOG Adjective Rating Form and obtained interrater reliability coefficients of .79 for U-D, .65 for P-N, and .70 for F-B.

Wunder's 1987 study and the project reported by Witmer and others (1984) approximated the one described in this thesis in that ratings were not done by group members themselves, as was the case in many other studies, but by a small number of persons who were either present for group interactions or who observed the groups by watching videotapes. Higher interrater reliability coefficients have been obtained under other conditions, either by using more raters or by having group members fill out the rating forms on all other members of the group.

Validity of the SYMLOG Adjective Rating Form.

Evidence that the SYMLOG model and rating form actually portray or measure what they are purported to represent has been sought by a number of investigators. Considerable support has been generated on many fronts, but troublesome issues remain. The ensuing discussion will work from the more general matter of validation of the SYMLOG model to the specific issue of establishing validity for the Adjective Rating Form.

The SYMLOG conceptualization of social interaction is fairly well supported by its isomorphism with a number of other paradigms. Bales (1985) has been most energetic in pointing out these similarities. Wish, Deutsch and Kaplan (1976) identified four factors in social interaction, named

equal versus unequal, cooperative and friendly versus competitive and hostile, socioemotional and informal versus task-oriented and formal, and intense versus superficial. Bales regarded the first three as identical to dominance-submission, friendliness-unfriendliness, and task-orientation versus non-task-orientation, respectively. The fourth factor has been a matter of considerable interest to Bales.

In fact, Cohen also generated a fourth factor in factor analytic studies of the groups of trained and untrained raters described earlier (Bales et al., 1979). Those subjects were asked to complete ratings based on some of Wish's items, as well as the SYMLOG items. Items contributing heavily to this fourth factor included Wish's "intense, emotional, engrossed" and "superficial, unemotional, uninvolved". Items on the original SYMLOG Adjective Rating Form that contributed heavily to this factor were "emotional, expressive, changeable" and "frustrated, discouraged, withdrawing". This intensity of involvement factor accounted for 2.6 to 6.4% of the variance and appeared among ratings generated by untrained raters--not among trained raters.

Osgood's (Osgood, Suci & Tannenbaum, 1957) semantic space also parallels the SYMLOG space in Bales' (1985) eyes. Good-bad matches positive-negative. Strong-weak is

seen as matching the vectors emanating from the center of the SYMLOG space through the Up and Forward (UF) cell and through the Down and Backward (DB) cell, respectively.

Fast, from the fast-slow dichotomy, parallels the meaning of the Up and Backward (UB) cell in SYMLOG. Slow matches the sense found in the Down and Forward (DF) cell.

The SYMLOG space also resembles the domain of fantasy needs described by McClelland (1961). McClelland only dealt with positive unipolar dimensions, termed Need Achievement, Need Affiliation, and Need Power. These fantasy needs parallel F, P, and U directions, in that order. Bales (1985) speculated that fantasies regarding the negative polarities could be found in the psychopathologies.

Polley and Stone (1988) reported that in the SYMLOG model the factor of greatest importance is dominance-submission. It accounts for the most variance in factor analytic studies. They attributed this to the high value placed on verbal fluency in America, thus implying that the prominence of this factor may be rather unique to Western culture. Friendliness-unfriendliness is the next most important factor, followed by what they termed, acceptance versus non-acceptance of authority, meaning F-B.

Polley (1986) has criticized the F-B dimension as untenable as it is currently defined, at least on the

Individual and Organizational Values Rating Form, a companion instrument that parallels the behavioral items on the Adjective Rating Form. The F-B dimension depicts work and play as antithetical, but Polley cited current professionals as increasingly focused on work as an outlet for creative energy and a source of intrinsic satisfaction. He is among the SYMLOG specialists who advocate removing the emotional expressiveness from the F-B scale and introducing the emotional component to the P-N scale.

Isenberg and Ennis (1981) used 16 untrained raters to prepare SYMLOG Adjective Ratings as well as similarity-dissimilarity ratings for 16 well-known persons in public life. In the latter method the perceptual dimensions were implicitly formed by the raters, without any external cues to direct their thinking. The investigators then used multidimensional scaling to derive the factors for perception from the similarity-dissimilarity ratings. Multidimensional scaling results were compared with the SYMLOG dimensions to see how well they would correspond. In the study just described, there was a direct correspondence between the two sets of dimensions. Dimension 1 proved to be P-N, Dimension 2 was U-D, and Dimension 3 was F-B. This particular study represented the investigators' most successful attempt to validate the SYMLOG space with multidimensional scaling.

Even though the SYMLOG dimensions correspond well to other sets of factors, the three dimensions are not as independent as one might imagine. Rywick (1987a; 1987b) calculated the correlations between item-to-scale reliabilities for each SYMLOG scale. He reported $-.784$ for U-D versus P-N, $.182$ for U-D versus F-B, and $.156$ for P-N versus F-B. These findings showed that items measuring dominance tended to measure unfriendliness, as well. Similarly, the indicators of submissiveness were perceived by raters as friendliness measures to some extent. Finally, dominance items were construed as measures of instrumental control, and submissiveness items were taken as measures of expressiveness, to the degrees indicated by the correlation coefficients above.

Firmer evidence of concurrent validity for SYMLOG Adjective Ratings as a measure of individual behavior in groups has been industriously sought by a number of researchers, not the least of whom is Bales (Bales et al., 1979). By way of explanation, his original method, named Interaction Process Analysis, included 12 response categories which observers were trained to score (Bales, 1950). Every utterance was coded. Observers also noted who spoke to whom. High interrater reliabilities were needed to use the system.

Bales (Bales et al., 1979) subsequently developed SYMLOG Interaction Scoring which allows the observer more latitude. Only salient acts need to be recorded. It is nonetheless demanding and requires substantial training. It is the standard against which SYMLOG Adjective Rating is commonly judged. Bales and others recommended the Adjective Rating Form for use with untrained raters, since the rater is permitted to form a global overall impression of others' behavior without acute attention to detail. In the discussion that follows, persons using the rating forms are referred to as raters, while the other group is designated as scorers. Both groups still engage in observation, of course.

Cohen's studies (Bales et al., 1979) with the original rating form, using trained scorers and untrained raters, found that both sets of observers were sensitive to overt verbal behaviors as well as less-pronounced non-verbal behaviors for the U-D dimension. This was reflected in the satisfactory level of agreement found when scoring results based on both levels of behavior were correlated with the ratings of untrained raters. However, untrained observers' ratings on P-N and F-B scales only corresponded well with SYMLOG scorings when the scorings reflected verbal, overt actions of subjects. When the additional scoring derived from observation of non-verbal behavior was introduced, the

correlations between the two groups declined. Cohen concluded that the untrained raters did not sense much of the covert and non-verbal activity on the positive-negative and task-oriented dimensions. Even so, the lowest correlation coefficient reported between untrained raters and trained scorers was .68. When scoring was compared to rating, over all levels of skill, the average correlation coefficient for U-D was .70, for P-N, .90, and for F-B, .86. These results reflected appraisal of overt behavior only, however. Average correlations of the scoring for non-verbal behavior with global ratings were .69 for U-D, .77 for P-N, and .75 for F-B.

Bixby (cited in Bales et al., 1979), a protégé of Bales, conducted a study in which eight observers scored a group of 11 persons, followed by the completion of rating forms by both scorers and group members immediately after the session. Observers' SYMLOG scoring correlated with their own ratings at the level of .79, while observers' scoring and group members' ratings correlated almost as well. The coefficient was .76. One must again assume that the original version of the rating form was used in that study.

In Wunder's 1987 study, the median coefficients for concurrent validity between the two methods were .23 for U-D scale, .44 for P-N, and .04 for F-B. It should be

explained that during part of all sessions observed, role-playing was the assigned group task, and it was that particular portion of ratings and scorings which showed the lowest correlation coefficients.

All three phases of each session were studied separately (Wunder, 1987). Correlation coefficients between SYMLOG Interaction Scoring for the first phase, "warm-up", and SYMLOG Adjective Ratings were .39 for U-D, .49 for P-N, and .28 for F-B. For the "feedback" phase, the coefficients were .24 for U-D, .42 for P-N, and .23 for F-B. Therefore, when the data from the "role-playing" sessions were omitted, the correlation coefficients improved. Overall, Wunder concluded that ratings and scorings could be said to have modest convergent validity for the P-N dimension and low convergent validity on U-D and F-B.

Witmer and others (1984) computed a correlation coefficient between scorings and ratings by using the values assigned to data points on two field diagrams. They obtained a result of .75.

Nowack (1987) determined correlations between self-ratings on SYMLOG forms and self-reports on six social psychological concepts for 68 subjects. Persons who rated themselves as P, or positive, in terms of their anticipated impression in the eyes of others rejected the descriptions

of inconsistency, social anxiety and masking behaviors as being true of themselves. These same persons accepted the description of happiness and well-being. Persons who rated themselves as F, or task-oriented, in specific situations also rejected empathic capacity as being true of self, but did endorse masking behaviors and Machiavellianism as quite applicable. This study lends some support to the idea that the SYMLOG Adjective Rating Form could serve as a valid self-report tool.

Solomon (1981) used results obtained from 55 subjects to correlate the scales of the Jackson Personality Research Form-AA (PRF) with the peer ratings of subjects on the Balesian dimensions. Positive correlations between dominance and exhibitionism on the PRF and high dominance on SYMLOG were found. Affiliation and nurturance correlated with the positive pole of P-N, while aggression correlated negatively. The measure of playfulness on the PRF correlated negatively with the F pole of the F-B dimension. Solomon stressed that none of the results ran counter to theoretical predictions in this study. This work appears to support the validity of the three major constructs which form the SYMLOG space.

Schneider and Becker-Beck (1988) alluded to some of their earlier work which showed that free descriptions of behavior corresponded well with SYMLOG rating and scoring.

However, the original work was reported in German, so the study could not be critiqued by this investigator.

Another pair of researchers were able to demonstrate that SYMLOG may have some predictive validity in terms of social interaction patterns within groups. Breiger and Ennis (1979) studied 21 university students enrolled in a course designed to teach the nature of group interaction. At the end of the semester each student completed SYMLOG Adjective Ratings Forms on every other student, as well as a sociometric questionnaire regarding social ties with other class members. Students were specifically told to address liking, disliking and perceived similarity. The investigators used an algorithm to cluster the group members according to their similarities in terms of the social overtures both offered and received. Each resulting cluster was labeled with 1 of the 26 terms derived from the SYMLOG space, based on the ratings the clustered individuals had received. Cluster 1 was Up and Positive (UP), cluster 2 was Up and Negative (UN), cluster 3 was Positive (P), and cluster 4 was Down and Negative (DN). The investigators were then able to identify parallels between the reported interpersonal ties in each cluster and the interaction styles said to apply to persons functioning in the identified portions of the SYMLOG space.

SYMLOG ratings seem to have a definite place in group and interpersonal study. An unresolved issue is whether ratings are less satisfactory than direct observation with concurrent scoring. Cohen offered some discussion on the subject (Bales et al., 1979). He countered the above suggestion with the idea that scorers may become so caught up in minute-by-minute observation that they miss important features of group interaction. They suffer from a supposed inability to note contextual features of the interaction. Furthermore, SYMLOG scorers record only selected acts, so they may become focused on dominant and hostile activity, as well.

The above argument sounds plausible, but it does not render raters any more immune to perceptual biases than before. Both forms of observation study probably have their place. Cohen (Bales et al., 1979) likened the controversy to a conflict in values between different types of researchers. Witmer and others (1984) offered the opinion that ratings are more suitable for answering questions regarding outcomes, while scorings are more appropriate to studies of process.

The Edwards Personal Preference Schedule

The EPPS, briefly described earlier in the review of literature, was designed to measure the relative strength

of 15 individual needs. Because the instrument is copyrighted, the Appendix does not contain a copy. The test's author, Allen L. Edwards (1959), based items on a theory of manifest needs developed by Henry Murray. The EPPS results in a ranking of each individual's preferences for abasement, achievement, affiliation, aggression, autonomy, change, deference, dominance, endurance, exhibition, heterosexuality, intraception, nurturance, order and succorance.

The instrument is a paper-and-pencil test which contains 135 separate statements of individual preference for a specific activity. Examples are "I would like to write a great novel or play," or "I would like to tell amusing stories and jokes at parties." Statements representing different needs are paired, forcing the respondent to select one choice or the other. A total of 225 pairs are presented. Frequencies of selecting one need over another determine the raw scores for the various scales (Edwards, 1959).

The instrument was designed to insure that the paired items were equal in their social desirability, thus attempting to alleviate social desirability as a biasing factor in response selection. The need to control for social desirability response bias has largely been discredited, however. According to Hogan and Nicholson

(1988), subsequent research with other instruments has shown that in normal, well-functioning adults genuine preferences do coincide with socially desirable behaviors. Nonetheless, the EPPS retains this feature.

Reliability of the EPPS. Test-retest reliabilities for the complete profile of needs ranged from .65 to .91 after a two-week interval (Borislow, 1958). Other test-retest reliability coefficients have been reported, but they may be of limited value because they calculated the coefficients for each scale separately. Any single score on the EPPS is meaningful only within the context of the other scores.

The test manual addressed internal consistency reliability for each scale, with split-half correlation coefficients ranging from .60 for deference to .87 for heterosexuality (Edwards, 1959). The median coefficient was .78. However, McKee (1972) pointed out that the repeated pairing of certain statements with a number of the other need statements in this test inflated the coefficients obtained by Edwards.

Edwards (1959) demonstrated relative independence of the 15 scales by computing intercorrelation coefficients between those scales. The most pronounced relationships were a positive correlation of .46 between affiliation and

nurturance, and a correlation of $-.36$ between autonomy and nurturance.

Validity of the EPPS. Content validity has been examined by several investigators and reviewers. Earle (1973) remarked that the EPPS is oriented to measuring interpersonal and social interaction more than most personality inventories. However, he chastised Edwards for providing no evidence that the items measuring a given need are equivalent indicators of the strength of that need.

Furnham and Henderson (1982) conducted a content analysis of four personality inventories. They found the EPPS to be exceptional in the high frequency with which it provides situational information in the test items. Furnham and Henderson regarded this as desirable in a test because respondents are less likely to misconstrue what is being asked. They also noted that most items in the EPPS address attitude rather than self-concept or behavior. Of course, the assessment of attitude is consistent with the test's stated purpose of determining preferences or needs.

Navran (1977) identified subcategories of content within each scale and recommended that analysis be done on that level. The subcategories of three of the scales will be enumerated here because of the importance of those scales to the present study. Within the deference scale

there are 10 statements regarding following others' directions, 3 about conforming to the expectations of others, 3 addressing seeking help from a respected person, 3 about complimenting others one admires, 3 regarding the lauding of one's superiors for their successes, and 6 about offering admiration to and receiving guidance from great men.

Within the dominance scale there are 10 statements addressing making decisions and directing others, 6 about the desire to be placed in a leadership position, 6 regarding the wish to be treated as a leader by others, and 6 about defending one's views and carrying one's point. The affiliation scale contains 10 statements about devotion to others, 6 regarding having many friends, 6 addressing engaging in activities with friends, and 6 about giving to others or doing services for others (Navran, 1977).

The EPPS has been sharply criticized by reviewers for its lack of validation as a predictor of normal interpersonal dynamics (Heilbrun, 1972). However, lack of validity cannot be declared, because some individuals may suppress behaviors that would be necessary to satisfy genuine preferences or motivations. Caputo, Plapp, Hanf and Anzel (1965) made an elaborate attempt to validate the EPPS as a predictive measure of behavior. Out of a total of 79 nursing students they selected two groups, based on

the most extreme deviation of scores from group means and the directions of those deviations. Laboratory methods employed to assess student behavior included asking students to write stories based on slides depicting typical hospital scenes. Students were also asked to engage in tape recorded conversations about controversial issues in nursing practice and education. The third behavioral measure involved the use of actors to stage semi-structured scenes in which the subjects were provided with stimuli thought likely to evoke certain behaviors.

All responses were scored for the presence or absence of content relating to nurturance, intraception, abasement, dominance, autonomy and aggression. Only the autonomy scale on the EPPS was found to differentiate between the two groups for conversational and role-playing behaviors (Caputo et al., 1965). Of course, the researchers used group means which may have distorted the results, and the behavioral criteria may have possessed no genuine relationship to the underlying needs measured by the test.

Efforts at establishing concurrent validity with four other personality tests were unsuccessful (Earle, 1973). Earle noted that in 7 of 10 studies, high scores on the achievement scale corresponded to standard measures of academic achievement, however. Woodmansee (1978) compared EPPS nurturance scores with supervisors' ratings of

nurturant behavior among nursing personnel in a state mental hospital. Whether these subjects were professional nurses was not clear. A correlation of $-.30$ was obtained.

McKee (1972) concluded that face validity of the EPPS is satisfactory, but admitted that the transparent nature of the scales make it possible for the respondent to deliberately falsify his or her responses to create a certain impression. This has been demonstrated to be so, despite efforts made by Edwards to limit the effects of social desirability on test scores.

The ipsative scoring used on the EPPS confounds interpretation of much of the work that has been done with this instrument. Any score generated is only an indication of the relationship of that need to the other needs of the same individual, and is no indication of the absolute strength of the need. Therefore, interindividual comparisons of EPPS scores for any particular preference are invalid (McKee, 1972). McKee found it curious that T scores had been devised for this instrument, and cautioned against their use. Similarly, the creation of group means based on the assigned numerical scores seems equally invalid. The numbers assigned to individual test results represent only ordinal data.

Gynther and Gynther (1976) noticed that most research done with the EPPS in the late 1960's focused on comparing

two groups. This may indeed be the most valid way to employ the EPPS as it is currently structured. If two polarized groups exhibit extreme differences on pertinent scales of the test, the numerical values of the ordinal scores should be sufficiently high to result in a statistically significant difference between group means. The difference could be meaningful, in spite of the fact that a single group mean may not provide a coherent measure of the strength of that need for the group it represents.

It seems safe to say that the test serves as a measure of the subject's willingness to endorse certain items as being true of self. Responding to the test in certain ways can be looked upon as a behavior that may assist researchers in interpreting other observations regarding the subject (Hogan & Nicholson, 1988). The forced choice format may also assist respondents in ranking their preferences more readily than if required to consider all 15 preferences simultaneously.

Analysis of Data

Scores from SYMLOG Adjective Rating forms were transferred to a set of bar graphs, allowing visual inspection of the differences between raters for each subject. Percent agreement between raters for each subject was computed. Items accounting for the most disagreement

between raters were noted, as was the magnitude of those disagreements.

Scores were subsequently weighted using the procedure described by Cohen (Bales et al., 1979). Items measuring only one SYMLOG dimension were multiplied by a factor of six, while those measuring two or three dimensions were multiplied by factors of three and two, respectively. After summing all directional scores, the differences between bipolar opposites were determined. These values were multiplied by .173, in order to adjust the numerical range of final scores to -18 to 18. The weighting procedure was employed in response to the theoretical argument that weighting will increase the internal consistency of the scales, resulting in higher calculated interrater reliabilities. Parke (1985) took issue with the weighting formula, however, claiming that it overcompensates for the original disparities between the items designed to measure one, two or three directions.

The rating form scores were subsequently analyzed using Group Types, Version 1.1 (Parke & Houben, 1988b), a microcomputer program designed for use with SYMLOG data. This program generated average field diagrams and various statistics unique to the program itself. Specifically, the program was used to identify the group type according to the typology of Parke and Houben (1985). Statistics

generated included center of gravity, weighted average distance from center of gravity, index of polarization, angle of polarization, skewness and kurtosis.

All the above statistics have been defined by Parke and Houben (1985) in the literature. Although some of the terms coincide with those used by the general population of researchers and statisticians, the program-specific definitions must be consulted in order to comprehend the program statistics and apply them to the field diagrams. Group Types, Version 1.1 (Parke & Houben, 1988b) uses a complex algorithm to classify groups as either unified, polarized, fragmented, unified with a non-attracting outlier, tending to polarize, scapegoated, or tending to fragment. The algorithm is based on the specialized statistics.

Due to Parke and Houben's (1988a) observation that average diagrams tend to cluster subjects too closely together, resulting in artifactual representations of groups, the average diagrams were expanded by a factor of 1.41, derived from the statistical method that is available as part of the Group Types program (Parke & Houben, 1988b). This resulted in a second set of statistics and field diagrams.

Individual scores on the dominance-submission dimension were analyzed for the extent to which each

directional score contributed to the final dimensional score. Individuals with one directional score less than or equal to 28% of the score for the opposite direction were classified as exhibiting stability of behavior in the direction of the larger score. A dominance statistic indicating the degree of polarization of the group along the U-D dimension was also obtained through the Group Types program (Parke & Houben, 1988b). Determination of average Euclidean distance, as defined by Kelly and Duran (1985), was proposed as a measure of cohesion between nurses only and among the group members as a whole.

Interrater reliability was determined by use of Pearson Product-Moment coefficients of correlation. These were calculated for up-down, positive-negative, and forward-backward dimensions, as well as separately for the six directions: up, down, positive, negative, forward, and backward. Since Bales (Bales et al., 1979) regarded Pearson correlation coefficients as likely to inflate interrater reliability, a three-way analysis of variance (ANOVA) was also computed, followed by calculation of the percentage of total variance attributable to raters. The other independent variables in the three-way ANOVA were subjects and SYMLOG direction. The three-way ANOVA was also scrutinized for any significant interactions among the independent variables.

The consistency scores were computed for 13 EPPS forms supplied by University of Tennessee graduate students in nursing, in order to obtain a current standard for judging the consistency scores of the subjects participating in the author's study. None of the students' tests produced a consistency score below nine (Thomas, 1989). Thus, two of the tests supplied by multidisciplinary team members were eliminated from analysis because of consistency scores below nine.

Edwards Personal Preference Schedule data were collapsed into a profile of simple rankings for each subject. Tied ranks were created when two or more scales possessed the same raw score. Conversion to simple rank order was done, in contrast to Edward's (1959) published instructions regarding data analysis, in order to avoid the inappropriate use of ordinal data. Subjects were then classified into two groups based on similarity or dissimilarity to the hypothetical profile of a nurse. A high preference for nurturance was used as the criterion for identifying subjects with nurse-like profiles. Within each group, subjects' profiles were subsequently examined for commonalities among rankings for dominance, deference and affiliation. The two groups were compared for differences on the preceding variables.

Written records taken from interviews with nurses were analyzed for common themes and for any isolated responses judged to have some bearing on the interpretation of group interactions during team conferences. Questionnaires were surveyed in order to determine how many individuals indicated they had chosen their profession as a means to help others.

Assumptions and Limitations

The principal investigator made several assumptions in designing and conducting the study. One was that subjects did not unduly alter their behavior while being observed or taped. Another assumption was that subjects did not deliberately falsify their responses to the EPPS or in personal interviews. Finally, the modified SYMLOG Adjective Rating Form was assumed to yield interval data, permitting average scores to be computed.

Limitations to the study were numerous. Only one multidisciplinary team was observed, and thus the results cannot be widely generalized. In addition, the findings may apply to only one health care specialty. Only two observers were used to generate ratings. Furthermore, only one rater attended the first four sessions. This substantially limited the exposure of the second rater to one of the subjects, who attended only one meeting during

the last six sessions. More reliable results could have been obtained if there had been a larger number of observers.

Distortion of results may have crept into the study in several ways. The ratings were retrospective, thus increasing the chances for raters' perceptual biases to affect their ratings. The stated purpose of the study was to examine verbal behaviors only, but raters observed non-verbal behaviors, as well. This added source of information probably had a subtle impact on the scores that were assigned. Non-participant observation was intrusive to the extent that group members were aware of the observers' presence. In all probability, group members did alter their behaviors in some manner. In addition, the team's newness may have resulted in instability of individual behavioral styles. Use of SYMLOG Adjective Ratings made at only one point in time could have obscured changes that occurred in the behaviors of one or more subjects during the course of the study.

The principal investigator also had no control over the circumstances in which the subjects responded to the EPPS. These conditions could have varied and therefore influenced the subjects' responses in unknown ways.

Summary

An observational study was conducted over 10 conference sessions of a multidisciplinary health care team. Two instruments possessing varying degrees of reliability and validity were used to quantify the data obtained. Interviews and a brief questionnaire were also employed. Quantitative and qualitative methods of analysis were selected. Assumptions and limitations of the study were also recognized.

CHAPTER IV

RESULTS

Results will be presented separately for the two instruments, the SYMLOG Adjective Rating Form and the Edwards Personal Preference Schedule. Nurses' perceptions of team conferences will then be recounted, followed by a brief description of selected behaviors noted by the principal investigator while observing the team meetings. Finally, relationships between the various bodies of data will be addressed.

Results from the SYMLOG Adjective Rating Form

For the purposes of reporting the results, subjects were assigned identifying codes. Nurses became RN-X, RN-Y, and RN-Z. The clinical psychologist and psychiatrist were placed in a single group. Codes assigned to these two male members were DR-X and DR-Y. Social workers were assigned the codes SW-X and SW-Y. The dietitian, occupational therapist and physician's assistant were all termed allied professionals and assigned the codes AP-X, AP-Y, and AP-Z.

The scores of both raters appear on a separate graph for each subject in Appendix F. Differences between raters for each item and subject are highlighted on those graphs.

Percentage of agreement between raters appears in Table 1. Raters achieved acceptable levels of agreement on five subjects, RN-X, RN-Y, AP-X, DR-Y and SW-Y, as well as moderate agreement on another four, RN-Z, AP-Y, AP-Z, and DR-X. Considerable disagreement between raters regarding one subject, SW-X, produced a result of only 63% agreement.

For two items raters showed marked disagreement on several subjects. If the distance between two adjacent vertical markers on the rating form (see Appendix A) could be regarded as a graphic representation of a single unit of disagreement, then the item coded DPB (quietly happy just to be with others) resulted in four units of disagreement between raters for each of three different subjects. Raters were also three units apart on four different subjects for item P (friendly, equalitarian).

Some other items resulted in a high total number of units of disagreement over all subjects. Specifically, item DF (obedient, works submissively) resulted in 23 units of disagreement over nine subjects. Item DP (looks up to others, appreciative, trustful) was associated with 22 units of disagreement over nine subjects. Item F (analytical, task-oriented, problem-solving) resulted in 18 units of disagreement over seven subjects, while the DPB item described above generated 17 units of disagreement over seven subjects. Finally, the item coded P also

Table 1. Percent Agreement Between Raters for Each Subject

Subject	%
Nurses	
RN-X	.87
RN-Y	.88
RN-Z	.74
Allied Professionals	
AP-X	.86
AP-Y	.76
AP-Z	.79
Clinical Psychologist and Physician	
DR-X	.71
DR-Y	.88
Social Workers	
SW-X	.63
SW-Y	.84

resulted in a large number of units of disagreement--16 units over seven subjects.

The weighted directional scores obtained from averaged ratings appear in Table 3, Appendix G. The final dimensional scores appear in Table 4, Appendix H. On the basis of the final dimensional scores, subjects were each assigned to their respective locations within the SYMLOG space. Only four cells were occupied. One person fell into the neutral zone, six subjects occupied the Positive (P) cell, two persons were in the Down and Positive (DP) section and one subject occupied the Down (D) cell. These results are shown graphically in Figure 6.

An average field diagram showing relative locations of members and group type was generated. This is shown in Figure 7. The group is shown as unified on the positive side of the field. A large circle encompasses the entire group, which is also depicted as moderate in its task orientation. No identifying labels appear here because the members are too close together to permit the computer-generated labeling to be legible. However, the portion of the field diagram occupied by the group is enlarged in Figure 8, in order to permit labels to appear.

Group Types, Version 1.1 (Parke & Houben, 1988b)
statistics for this group included a center of gravity at

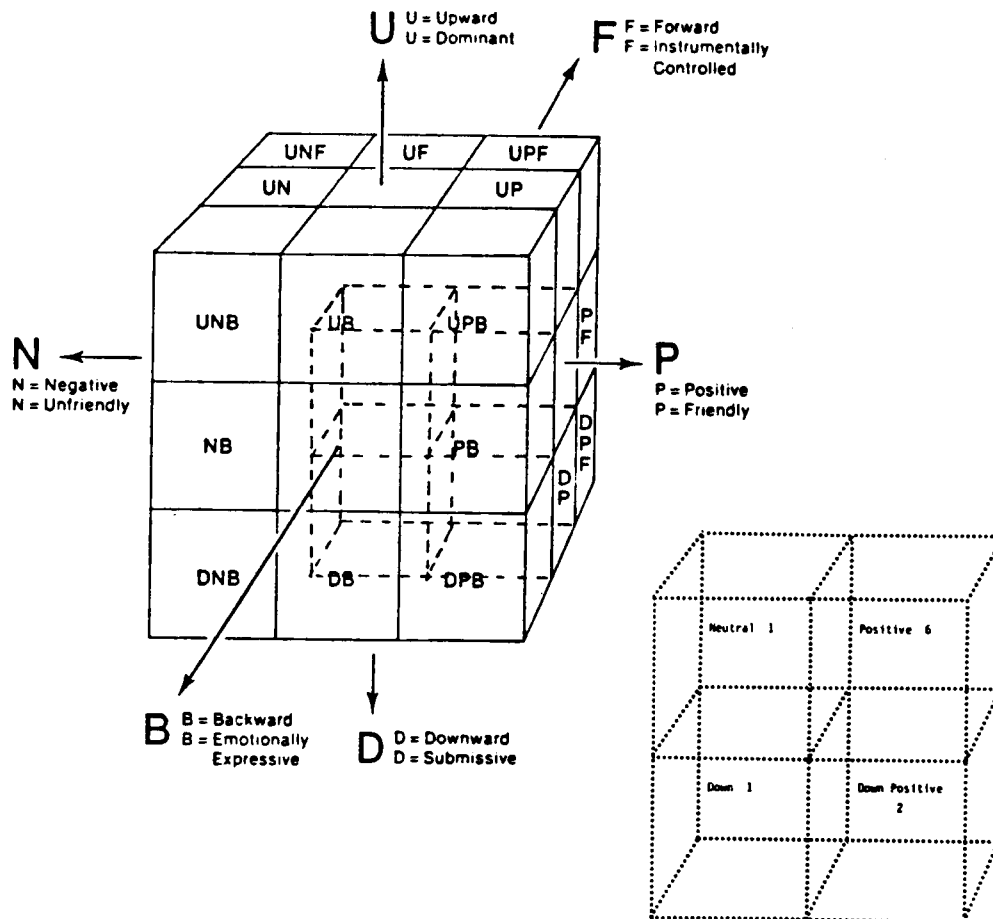


Figure 6. Number of subjects in various sections of the SYMLOG space. (Letter codes assigned to individual cells correspond to the SYMLOG directions shown above. Two and three letter codes represent combinations of two or three SYMLOG directions, respectively.)

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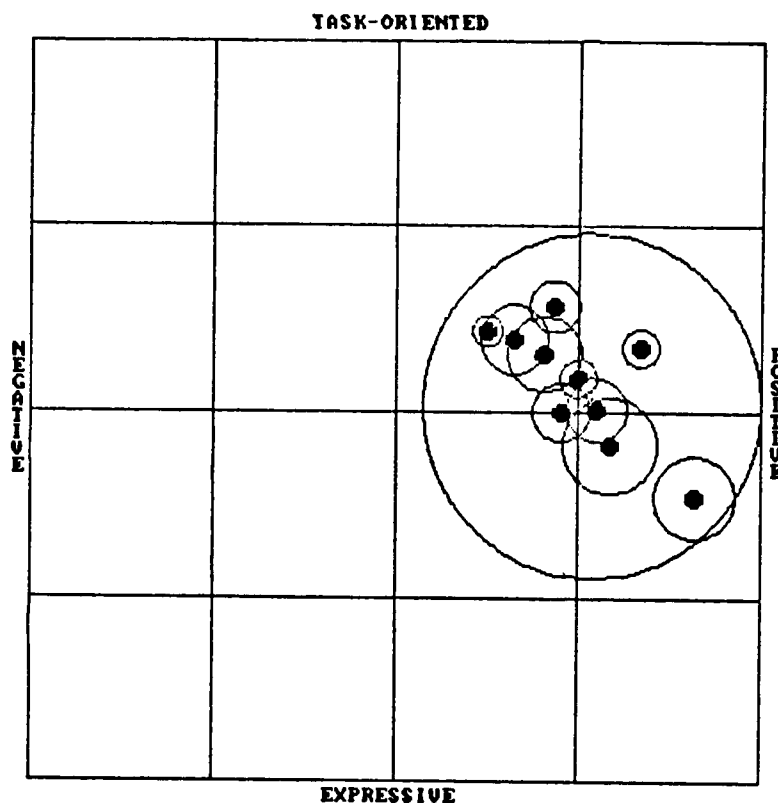


Figure 7. Multidisciplinary team location in the SYMLOG field as determined by scores based on the averages between two raters. (The large circle surrounding the cluster of smaller circles indicates unification of the group. Blackened areas represent group members. A larger circle surrounding a member indicates greater dominance. Friendliness is shown by the position of each circle on the horizontal axis. Task orientation is shown by the position of each circle on the vertical axis.)

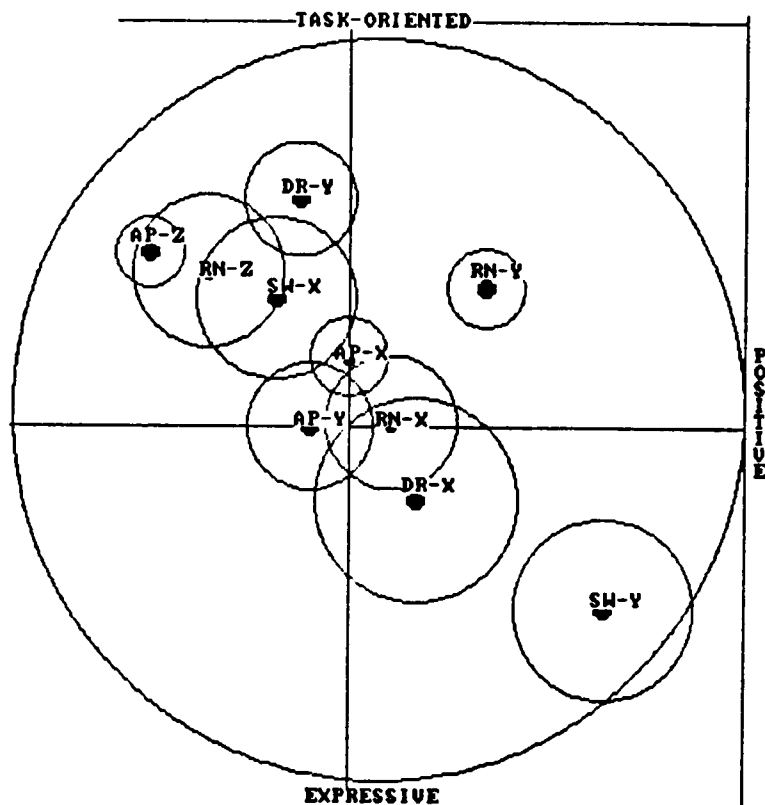


Figure 8. Enlarged segment of field diagram showing locations of individuals within the unified group. (The large circle surrounding the cluster of smaller circles indicates unification of the group. Blackened areas represent group members. A larger circle surrounding a member indicates greater dominance. Friendliness is shown by the position of each circle on the horizontal axis. Task orientation is shown by the position of each circle on the vertical axis. Disciplines shown are allied professionals (AP), clinical psychologist and physician (DR), nurses (RN), and social workers (SW).)

9.69 and 0.33 on the P and F axes respectively. The weighted average distance from the center of gravity was 4.15. The angle of polarization was -44.9. Angle of polarization addresses the angle of rotation of two perpendicular axes which could be drawn through the group configuration. The major axis always represents the hypothetical line of best fit that could be drawn between the subjects' various locations on the two-dimensional diagram. A negative angle of polarization indicates that the major axis has rotated clockwise from the nearest diagram axis. Angle of polarization is a measure of the group's orientation to the field diagram (Kelly & Duran, 1986; Parke & Houben, 1985).

Index of polarization was 0.93. This is a statistic that can range from 0 to 1.0. It compares the variance along the major hypothetical axis to the variance along the minor hypothetical axis. The closer the resulting value is to 1.0, the more linear the overall shape of the group. In contrast, a value close to 0 would represent a rounded configuration (Kelly & Duran, 1986; Parke & Houben, 1985).

Skewness was 0.24 and kurtosis was 0.126. Skewness can range from -1.0 to 1.0, and functions as a measure of asymmetry in the group configuration. A positive value, such as the one obtained here, indicates a protrusion of

one or more members' locations away from the center of the group and toward the positive side of the field diagram. Kurtosis can range from 0 to 1.0. It signifies the degree to which there is concentration of weight at the center of gravity. A low value, such as the one obtained here, shows that there is a submissive member some distance away from the center of the group (Kelly & Duran, 1986; Parke & Houben, 1985).

The average field diagram was subsequently expanded based on the automatic expansion provided by the Group Types program (Parke & Houben, 1988b). The formula for manual calculation of the expansion factor, as well as a mathematical proof for why expansion is recommended, appeared in an article by Parke and Houben (1988a). The complete expanded field diagram without labels appears in Figure 9. It shows a group that is tending to polarize, with circles encompassing two significant clusters. The member who does not appear in either cluster is called an outlier, according to the terminology of Parke and Houben (1985). No identifying labels appear on this diagram. Instead, they appear on the segmental enlargement of the expanded field diagram in Figure 10. The statistics for the expanded diagrams remain unchanged except for the weighted average distance from the center of gravity, which is now increased to 5.85.

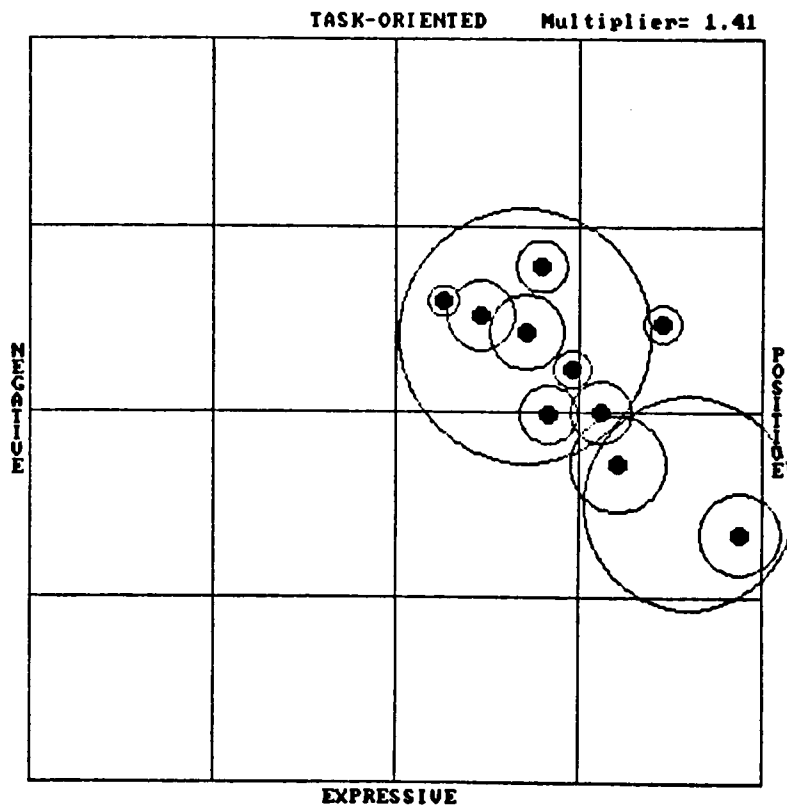


Figure 9. Field diagram showing multidisciplinary team as a slightly polarized group, resulting from use of automatic expansion factor. (The two largest circles delineate the two major clusters within the group. Blackened areas represent group members. A larger circle surrounding a member indicates greater dominance. Friendliness is shown by the position of each circle on the horizontal axis. Task orientation is shown by the position of each circle on the vertical axis.)

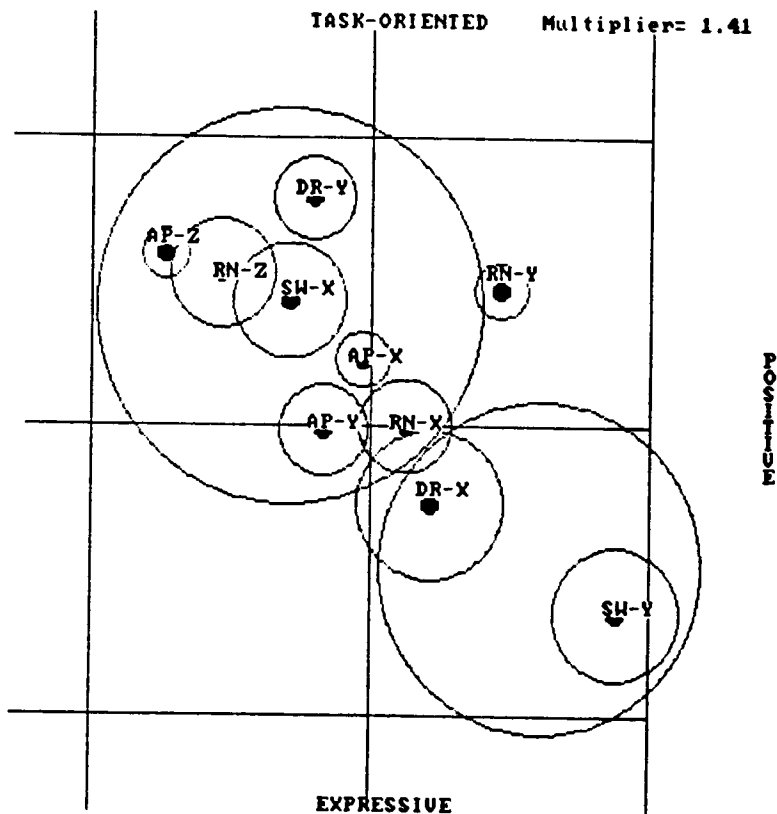


Figure 10. Enlarged segment of expanded field diagram showing locations of individuals within the slightly polarized group. (The two largest circles delineate the two major clusters within the group. Blackened areas represent group members. A larger circle surrounding a member indicates greater dominance. Friendliness is shown by the position of each circle on the horizontal axis. Task orientation is shown by the position of each circle on the vertical axis. Disciplines shown are allied professionals (AP), clinical psychologist and physician (DR), nurses (RN), and social workers (SW).)

By comparison of the weighted dominance and submission scores for each subject, it was possible to determine that seven subjects showed a relatively large quantity of behavior in both directions. By contrast, three subjects were very consistent in exhibiting mostly submissive behaviors. These comparisons are shown graphically in Figure 11. The Group Types program also provided a dominance statistic describing the extent of group polarization along the dominance-submission dimension (Parke & Houben, 1988b). For both the expanded and unexpanded groups, the statistic was 5.78, which was sufficiently high to be termed polarized. This result was obtained in spite of the fact that none of the subjects had average dominance-submission scores high enough to place them in the upper stratum of the SYMLOG space.

Pearson correlation coefficients indicating extent of agreement between raters on SYMLOG dimensions and directions are summarized in Table 2. The coefficients revealed highest agreement for the dominance-submission scale, where the obtained value was .96. Unfortunately, the correlation coefficients obtained for forward-backward and positive-negative were 0.16 and -.01, respectively. These coefficients were calculated for each dimension across all subjects based on the corresponding weighted

Stability of Scores on SYMLOG Dominance-Submission Scale

Subjects receiving high scores in only one direction:

RN-Y	Dominance	(15.5)	XXXXXXXXXXXXX
	Submission	(55.5)	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
AP-X	Dominance	(15.5)	XXXXXXXXXXXXX
	Submission	(54.5)	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
AP-Z	Dominance	(3.0)	XX
	Submission	(54.5)	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Subjects receiving high scores in both directions:

RN-X	Dominance	(21.5)	XXXXXXXXXXXXX
	Submission	(22.5)	XXXXXXXXXXXXX
RN-Z	Dominance	(29.5)	XXXXXXXXXXXXX
	Submission	(21.0)	XXXXXXXXXXXXX
AP-Y	Dominance	(24.5)	XXXXXXXXXXXXX
	Submission	(29.5)	XXXXXXXXXXXXX
DR-X	Dominance	(50.5)	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	Submission	(18.0)	XXXXXXXXXXXXX
DR-Y	Dominance	(19.0)	XXXXXXXXXXXXX
	Submission	(31.0)	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SW-X	Dominance	(35.0)	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	Submission	(21.0)	XXXXXXXXXXXXX
SW-Y	Dominance	(47.0)	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	Submission	(24.0)	XXXXXXXXXXXXX

- Notes: 1) scores shown represent weighted directional scores, prior to conversion to directional scores and application of .173 correction factor
- 2) high score in both directions = a smaller score value that is >28% of the value of the larger score
- 3) high score in only one direction = a smaller score value that is <28% of the value of the larger score

Figure 11. Stability of behavior on the dominance-submission dimension as determined by comparison between dominance and submission scores for each subject.

Table 2. Interrater Reliability Across SYMLOG Dimensions and Directions as Determined by Product-Moment Correlation Coefficients (r)

SYMLOG scale	r
SYMLOG dimensions	
Dominance/Submission	.96
Friendly/Unfriendly	-.01
Task-oriented/Expressive	.16
SYMLOG directions	
Dominance	.92
Submission	.87
Friendliness	.09
Unfriendliness	-.11
Task orientation	-.33
Non-task orientation	.40

dimensional scores. Coefficients for the six directions were derived from the six corresponding sets of directional scores.

Agreement between raters on the dominance-submission dimension was excellent because the placement of subjects along the scale is almost the same for both observers. A graphic comparison of the two sets of dominance-submission ratings appears in Figure 12. Disparity is introduced because one set of ratings starts and ends at higher values than the other set. There is also reversal between two sets of subjects lying at adjacent positions along the dominance-submission scale. However, these differences are not very sizeable and not particularly meaningful to the overall interpretation of results. Therefore, they had little impact on the value of the correlation coefficient, which was .96.

Three-way ANOVA of raters by subjects by SYMLOG direction did not produce a significant value for F for the main effect of raters. This was taken as confirmation that interrater reliability was adequate. The percentage of total variance attributable to raters was calculated and found to be equal to less than 1%.

Graphic illustration of the rater by direction interactions revealed a significant interaction on the F-B

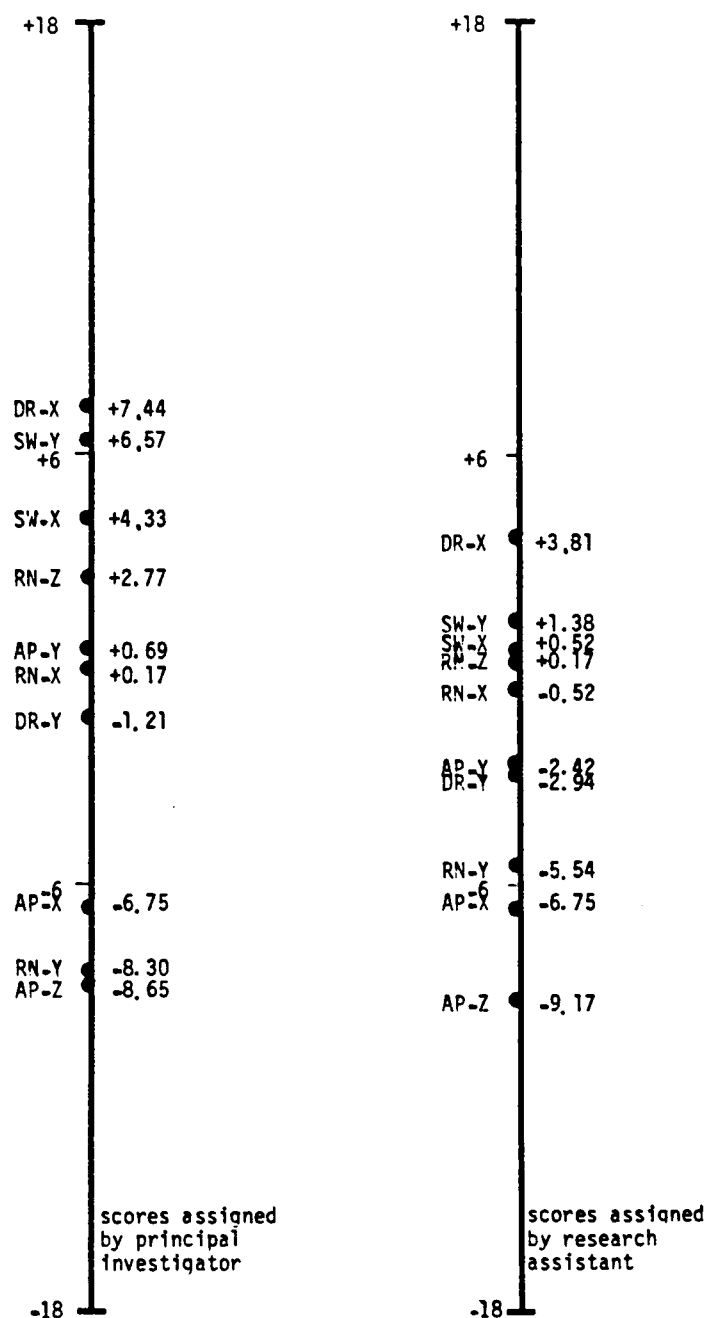


Figure 12. Comparison of ratings assigned by two raters on the SYMLOG dominance-submission scale. (Disciplines shown are allied professionals (AP), clinical psychologist and physician (DR), nurses (RN), and social workers (SW).)

dimension, however. The principal investigator rated subjects higher on task orientation and lower on non-task-orientation than did the second rater. When the F-B directional scores were analyzed in a separate three-way ANOVA, a significant F for rater was obtained ($F = 8.54$, $df = 1,9$; $p < .05$). The interaction is shown graphically in Figure 13. The percentage of total variance attributable to raters on the F-B dimension was high. It was 16%.

Results from the Edwards Personal Preference Schedule

For the purposes of reporting results, subjects were categorized according to their relatively high or low preferences for nurturance, and assigned corresponding codes. Subjects expressing a high preference for nurturance were labeled HN-1 and HN-2. Subjects expressing a lower preference for nurturance were designated LN-1, LN-2, LN-3. Data from only one nurse are included here because another nurse did not complete the test, and another's test resulted in a low consistency score. However, the nurse whose test results are reported was one of the subjects expressing a high need to nurture others.

Scales in the EPPS were subjectively categorized as relevant or irrelevant to the study of verbal activity in

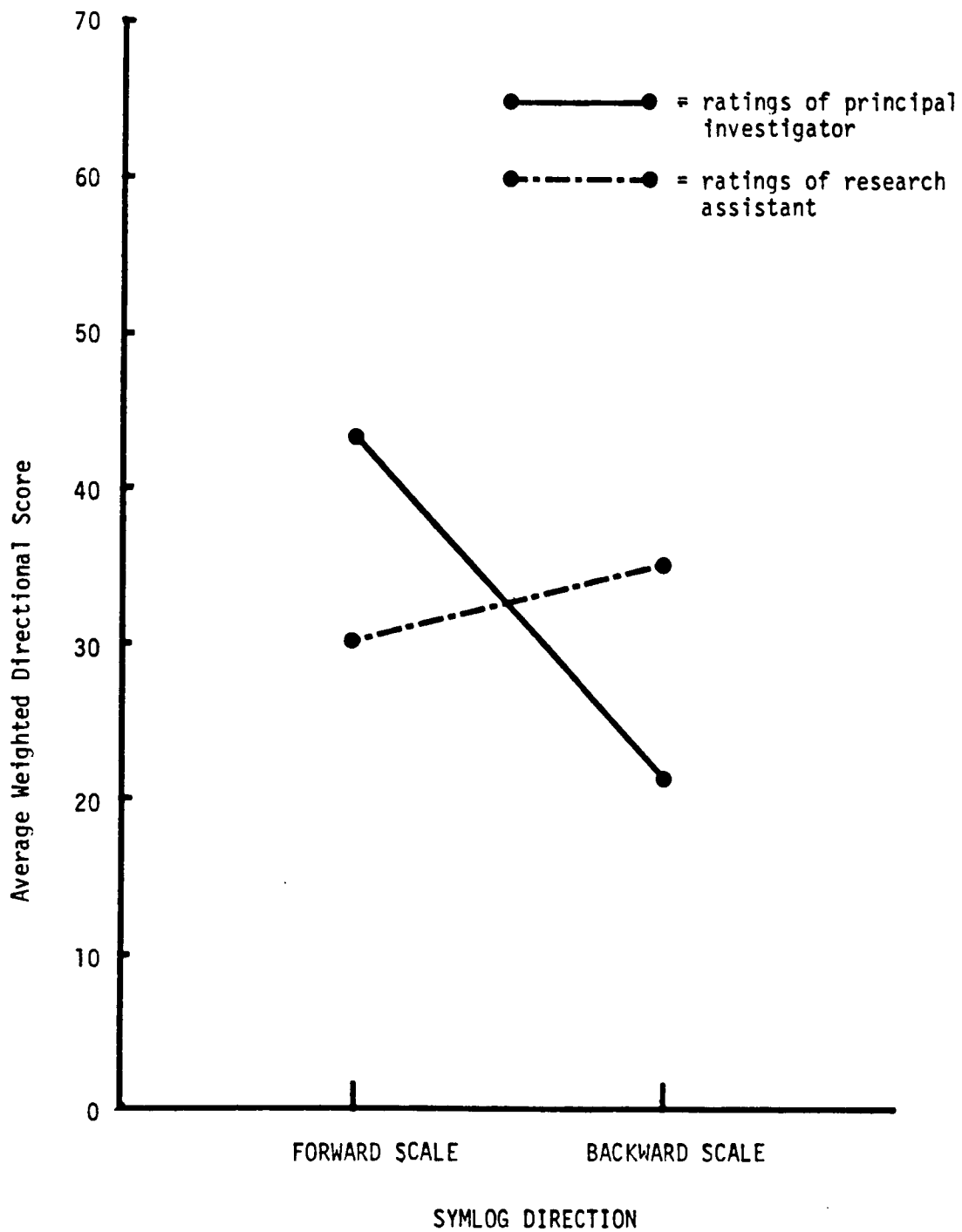


Figure 13. Rater by direction interaction on the SYMLOG forward-backward scale.

team conferences. The relevant scales were achievement, deference, autonomy, affiliation, dominance, abasement and nurturance. Although the irrelevant scales affected the relative positions of the aforementioned preferences, they do not appear by name in the profiles shown in Appendix I. Preferences shown there are in rank order, with 1.0 representing the highest preference and 15.0 representing the lowest preference.

Similarities noted between HN-1 and HN-2 were inclusion of achievement, dominance and nurturance among the ranks 1.0 through 5.5, as well as placement of autonomy and deference in ranks 9.5 to 15.0. However, one subject expressed a high need for affiliation and the other expressed a low need for it. For the other three subjects, the preference for nurturance was neither high nor low, falling within ranks 6.0 through 8.0. All these individuals expressed a low need for achievement. Two of the three persons ranked autonomy and affiliation high, while two of them ranked abasement and dominance low. For all five subjects, preferences for affiliation were scattered throughout the upper, middle and lower ranks, with no uniformity among the high or low nurturance groups.

Results from Interviews with Nurses

Information was obtained during the interviews regarding the history of the team and its general organization, role conflicts between team members, and nurses' perceptions about what functions were appropriate for them. Although some of this information did not directly apply to interactions during the team conferences, it was still valuable in allowing the researcher to gain a general understanding of the team's dynamics.

One nurse explained that she had relinquished her original role as task leader to another nurse sometime prior to the beginning of the study. The former individual assessed the latter nurse as uncertain of how much authority accrued to the role of task leader, and claimed the entire team felt uncertain about who was in charge. One nurse explained that a nurse was supposed to have filled a leadership role in the team meetings, but stated that this information had apparently never been communicated to the rest of the team.

One nurse remarked that new members were never adequately integrated into the team, and that no one owned the responsibility for that function. One nurse explained that male members had rarely participated in special

meetings which had been held for the purpose of discussing team function. Furthermore, the temporary nature of the individual psychiatrist's role on the team as Acting Medical Director was said to have resulted in the deferral of decision-making regarding team functions and policies. The hospital was in the process of seeking to hire another physician to assume the role on a permanent basis. One nurse expressed the hope that the physician hired would have an interest in team management.

One nurse noted that a selected allied professional would work in isolation from the rest of the team and would not address mutual concerns regarding programming. On the other hand, one nurse asserted that responsibility for designing and modifying patient care plans was too diffuse. As a result, she felt that no one had license to modify care plans between meetings.

One nurse spoke of role confusion between nurses and other professionals. A nurse claimed that nurses had withdrawn from psychosocial intervention with patients because the social workers and the occupational therapist were doing a great deal of work in that realm. One nurse believed that the problems of role overlap had been compounded by the low patient census during the unit's first six months of existence.

According to one nurse, nurses on the team were very interested in doing one-to-one psychosocial intervention with patients. Two nurses spoke of certain aspects of patient care being especially pertinent to their own profession of nursing. All three nurses felt responsible for making sure that certain aspects of patient care were addressed. One nurse stated that nurses needed to direct their attention to topics such as patients' problems with elimination, medication side effects, families' needs for information, and signs of improvement or deterioration. Two nurses specifically stated that it was a nursing role to introduce patients as topics for discussion at the team meetings.

One nurse asserted it would be appropriate for nurses to identify patient problems that would typically be addressed through the services of another discipline. Two nurses were particularly concerned about introducing patient and family preferences for placement after discharge. One nurse expressed dismay about team demands for nurses to provide certain types of physical care which she believed nurses on that unit were ill-equipped or ill-prepared to handle.

Nurses also provided the interviewer with information about the behaviors of themselves and others during team conferences, their own concerns about the team conferences,

and their observations and interpretations of nurses' participation in the meetings. One nurse acknowledged that team members did not speak in any designated order during the conferences. Two nurses felt that selected team members came to the meetings unprepared to discuss patients.

All three nurses could identify one or two other team members who engaged in overtalking. Nurses varied in their perceptions of whether the team had attempted to decrease this behavior. One nurse said that no serious attempts were made by anyone to contain an overtalking member, while another nurse thought the group did occasionally succeed in limiting such behavior.

One nurse specifically stated that the team was prone to digression. Two nurses each identified one other team member who engaged in considerable digression, although the individuals named were different. One nurse observed that the team devoted considerable time to topics irrelevant to patient care, including telling jokes and sharing news of events. One nurse recalled her frustration in being unable to get the team to be serious on one or more occasions. She also lamented that the team would respond with laughter to the discussion of socially unacceptable topics, even though they represented issues of importance for some patients.

A miscellaneous observation was that some members would not share note-taking tasks during meetings. One nurse recalled that on one occasion a colleague from another discipline had objected to the nurse's attempt to direct the team to complete a task.

In terms of their beliefs, judgments and concerns about the nature of team interaction during the meetings, one nurse felt that team meetings were unduly long. All nurses felt that they had a special role to play in limiting the discussion time, which they said included taking verbal action to cue the other members to end their talk.

Nurses varied in their opinions as to whether one or more of the other disciplines were contributing too little to team discussions. One nurse would have preferred that each member speak according to a prearranged sequence, and two nurses would have liked each member to formally state his or her goals and proposed interventions for each patient. One nurse said there was no one who should have been contributing more information, however, while two nurses would have preferred that male members share more information regarding patients' backgrounds, as well as the proposed goals and treatment interventions. Two nurses described team meetings as functioning to permit less-informed members to gather information about their

patients. Both expressed concern that analysis and synthesis of ideas for patient care did not follow the sharing of information.

One nurse thought that some pertinent topics were definitely neglected. Another nurse expressed the opinion that each discipline should assume the responsibility for addressing the topics that pertained to its own scope of practice. In one interview a question was raised regarding which discipline might best assume the role of monitoring discussion for omission of relevant topics and following through on introducing those topics. The nurse in question did not claim an exclusive role for nursing in this function, however. She was amenable to any discipline acting in that fashion. It remained unclear if any of the disciplines actually sought to fulfill such a role.

In terms of nurses' perceptions regarding their own verbal contributions, two nurses stated that the quantity of information they contributed was dependent on the amount of direct patient care they had provided prior to each meeting. One nurse stated that she would sometimes withhold comments for fear of lengthening the meetings. In the same vein, another nurse said she would refrain from reiterating a point that had previously been made by another team member. One nurse stated that presence of her

supervisor had prevented her from expressing an opinion about patient care on one occasion.

All nurses claimed they felt completely free to amend the verbal contributions of other nurses during team meetings, while only two nurses felt the same degree of freedom when the original speaker was someone from another discipline. All of them said they felt free to challenge the psychiatrist or clinical psychologist on a patient care matter, however. One nurse remarked that she never had anything to add to the contributions of other team members when they confined themselves to descriptions of patient care activities for which she had not been present.

One nurse felt she had to be selective about when to contribute added information, opinions, and suggestions. She also attempted to word her contributions carefully in order to gain acceptance of her contributions. She did not recall ever having refrained from introducing an important matter, however. Two nurses did recall having affected patient care decisions. One nurse specifically spoke of mobilizing support among team members to challenge a male member's treatment and discharge plans, but this required making contacts with team members outside the team meeting and reintroducing the issue at a subsequent meeting. One nurse also recalled having accepted the explanations presented by members of other disciplines for patient care

decisions that did not initially coincide with her own best judgment about that care.

Nurses also shared with the interviewer some of their perceptions of themselves and each other. Two nurses viewed themselves as typical of psychiatric nurses who work in a team setting. They all viewed themselves as possessing verbal skills that were better than those of the average nurse. One nurse said she was more likely than the average nurse to speak up and carry her point. Every nurse expressed both approval of and reservations about the abilities or behavior styles of at least one other nurse.

Nurses offered perceptions of some of the other team members, as well. One explained that only a few of the team members possessed experience in the team approach to planning patient care. One nurse described the three allied professionals as "quiet." A social worker was identified by one nurse as being "on-target" in her remarks during team conferences. One male member was characterized as tending to leave team meetings early due to lack of commitment to the team.

One nurse recalled having had many differences of opinion with other team members regarding patient management when the team first began. Another nurse identified a particular member of another discipline as likely to regard any difference of opinion as a personal

affront. One nurse told of having had an emotionally charged altercation with a team member from another discipline during the course of the study. However, one nurse asserted that everyone on the team strived to avoid letting interpersonal and team conflicts affect patient care.

Nominal Descriptions of Team Member Behaviors

The team conferences were characterized by a relaxed, informal atmosphere. Congeniality was evident throughout the 10 sessions, and animosity between members was not seen. Selected members were loquacious, presenting detailed accounts of patient and family behaviors and living situations, among other information. One or more members were inclined to dramatize some of their presentations at times. This included mimicking patients and family members, incorporating the facial expressions and body gestures necessary to rivet the attention of the rest of the group. The whole group engaged in some laughter at almost every session. Nurses provided verbal cues to proceed with patient care planning, but such behavior was rare.

Some team members spoke very little. One such nurse often did paperwork in patient charts during team conferences. The paperwork appeared to involve

documentation of the care plan for the particular patient under discussion. Another team member spoke rarely, if at all, and the team made little effort to call on her. She would also write in patient charts at times. The latter individual was not very articulate. Her contributions were likely to consist of information without interpretation, although it is hard to generalize because her contributions were so few.

There was a distinct contrast between the styles of interaction of the two male members. One was inclined to speak frequently and at length. This individual tended to make many prescriptive statements, although it was unclear as to whether they were taken seriously by the rest of the team. The other male member could remain silent for long periods of time, although he could also speak at length, usually providing a long string of declarative statements. This individual frequently spoke in a quiet undertone and would write in patient charts during team meetings occasionally. He was observed to respond with hearty agreement to a social worker's request to complete some required paperwork on one occasion.

Relationships Between Findings from the Various Sources

The placement of the group on the positive side of the SYMLOG space is substantiated by the observations that

group interaction was overwhelmingly friendly in nature. The remarks provided by nurses stating that the group would devote time to socializing rather than working on patient care planning corroborated the placement of the group in the field diagram approximately halfway up the F-B axis.

The two subjects with relatively high preferences for nurturance on the EPPS were submissive according to their dominance-submission scores. However, they both expressed high preferences for dominance and low preferences for deference on the EPPS. One of these two individuals was a nurse. All three submissive subjects expressed low preferences for deference on the personality test.

Two persons indicated on their biographical questionnaires that they had chosen their respective professions in order to help others. However, neither of these individuals were among those for whom EPPS results are reported here, due to their low consistency scores. Thus, the group may have contained more subjects who possessed a strong desire to care for and nurture others. One or both of these individuals might have met the criterion used in this study for similarity to nurses in general, if usable EPPS data had been obtained from them.

Summary

The group proved to be a unified group with tendencies toward polarization, according to the SYMLOG data. Positive behaviors were expressed at all times, and the group was very moderate in its task orientation. Nurses were not entirely satisfied with the group's casual style of interaction during team meetings or with what they perceived as lack of productivity. Nurses varied in their levels of participation, as indicated by the range in their U-D scores. The group contained three very submissive members who expressed preferences for activities opposite to those that they presented in the team conferences. One nurse was among the group of submissive members.

CHAPTER V

DISCUSSION

Interpretation of Results

An attempt will be made here to attach meaning to the findings of the previous chapter. Potential relationships between the various data sets will be explored. Attention will be directed at determining which findings are most reliable and most relevant to answering the research question. Where the results seem equivocal, one or more reasons for such results will be explored. Highlights from the literature on small groups will also be included.

Answers to the Subsidiary Questions

Nurses were not the most dominant members of the group under study. An aggregate of three members representing two other professions were more dominant than the most dominant nurse. However, nurses were sufficiently scattered along the dominance-submission continuum to make generalization about their dominance characteristics impossible. Some persons who are registered nurses certainly exhibit the capacity to be dominant members in multidisciplinary teams.

Nurses did withhold verbal contributions to team discussions at times, based on the comments made during interviews. However, their sense of professional responsibility impelled them to rise above the perceived constraints and introduce selected patient care matters at times. Whether the members of other disciplines felt similar levels of constraint remains unknown.

Only one nurse was among the group of subjects for whom reliable EPPS results were obtained. Therefore, it is not possible to conclude that nurses did or did not prefer to be deferential to other team members. However, the identification of three submissive female members via SYMLOG dominance-submission scores, did allow some tentative conclusions to be formed about their preferences. The EPPS rankings showing low preferences for deference for all three subjects, and high preferences for dominance among two of those subjects, provided a striking contrast to their observed behaviors. The fact that one of the latter subjects was a nurse maintained the relevance of this finding to the study. It is tempting to conclude that the submissive subjects were not entirely satisfied with the levels of participation they achieved in the group.

The question about nurses' preferences for affiliation with some or all of the team members cannot be answered here. Substantial disagreement between raters on two of

the three SYMLOG dimensions made determination of average interpersonal Euclidean distance too unreliable a measure of cohesion between members. Furthermore, no coherent pattern could be detected among the EPPS rankings for affiliation.

Disagreements Between Raters

Based on the Pearson correlation coefficients for the three SYMLOG dimensions, data obtained for the dominance-submission scale are quite reliable, while measures derived from all three scales are not. Thus, the statistics generated by the Group Types program (Parke & Houben, 1988b), and the resulting field diagrams, cannot be regarded as more than very approximate measures of truth. The statements made by nurses about the team's proclivity for socializing during team conferences lend support for the current placement of the group as a whole within the field diagram. But the locations of individuals within the group cluster are very much open to question, particularly along the positive-negative and forward-backward dimensions. Thus, it is impossible to say whether the group is better characterized as unified or slightly polarized.

However, it must be pointed out that none of the subsidiary questions specifically addressed identification of group type. The key question to have been answered

through the use of SYMLOG Adjective Rating Form was determination of dominance among various disciplines. Best interrater reliability was obtained along that dimension. Thus, the SYMLOG Adjective Rating Form proved to be largely satisfactory for the stated purposes of this investigation.

Raters disagreed in more than one way. First, raters disagreed markedly on one subject and moderately on four more. The best explanation for these differences is that the principal investigator had significantly greater exposure to the subjects than did the research assistant. The principal investigator may have formed impressions of the subjects during the first four periods of observation when the second observer was not present. Furthermore, subtle differences in behavior may have actually been present during the first two weeks. Those differences could have been related to apprehension and discomfort on the part of one or more subjects, which may have diminished by the fifth session when the second observer joined the group.

The principal investigator also interacted with subjects outside the observational periods as part of her efforts to solicit cooperation in the study. Thus, she may have acquired initial impressions that shaped her subsequent opinions about selected subjects. Several SYMLOG specialists have alluded to possibility of raters

tending to "reconstruct the picture of the behavior observed so that it corresponds with the expected patterning of traits and characteristics, thus losing the unique pattern of a particular behavior sequence or the overall complexity of a single person" (Bales et al., 1979, p. 275). Swann and Polley (1985) acknowledged that "extra impressions" could result, due to recall of preceding sessions.

Wunder (1987) spoke of something similar when he described the "primacy" effect. In his study, scorings were tallied separately for beginning, middle and ending phases of each session. Comparison of ratings to scorings showed raters tended to allow impressions formed in the first few minutes of an observational period to determine their ratings for the remainder of the entire session on the dominance-submission and positive-negative dimensions. A similar influence could have been at work in the current study, as well.

The second major form of disjunction between raters was marked disagreement across all subjects on the positive-negative and forward-backward scales. It should be noted that although the positive-negative ratings between raters did not correlate well, both observers did assign all subjects to the positive side of the field diagram. The concordance between observers in regard to

their seeing the entire team as friendly and positive is worthy of brief exploration. Some subjects did earn a few points in the negative direction. The principal investigator is not able to recall any instances of overt, describable, unfriendly behaviors during team conferences. One nurse did respond with a reactive statement on one occasion, but it was hardly the sort of response that could be termed truly negative. Raters apparently formed some impressions on the preconscious level about the capacity of individual subjects to behave in unfriendly ways.

D'Andrade (1974) described some work done by several of Bales' early disciples regarding discrepancies between direct observation using Interaction Process Analysis and a corresponding subjective rating form. They noted that persons who exhibited high levels of "showing solidarity" were also more likely to show some antagonism during group interaction. However, while the ratings reflected the high levels of showing solidarity, antagonism was portrayed as minimal or non-existent. The raters' perceptions of positive behaviors almost obliterated their perceptions of negative behaviors. One can only wonder if both raters were affected in a similar fashion during the current study.

Other research may shed some light on reasons for major disagreement between raters on the forward-backward

dimension. Becker (1986) conducted a study in which observers used the SYMLOG Adjective Rating Form to rate characters in the film "Twelve Angry Men" and completed a self-report instrument measuring self-concept. She found that persons who avoided impetuous, unguarded expression of feeling tended to perceive all characters as more task-oriented and controlled than did other raters.

Furthermore, the greater the emotional expression by the individual characters, the more the emotionally-controlled raters underestimated that behavior in those characters. Becker did not regard the results to be as statistically sound as she would have liked, however. In the current study it is entirely plausible that the two raters were sufficiently different in terms of self-concept and behavioral style to account for all of the difference between the two sets of ratings on the F-B dimension.

Individual raters may differ from each other in a numbers of ways, which in turn may result in differences in SYMLOG ratings. Bales (Bales et al., 1979) described the tendency of raters to be either expansive or cautious in use of the rating scale. He also mentioned differences in levels of attentiveness among raters. Swann and Polley's (1985) study of raters resulted in a set of characteristics that may be used to define and discuss the unique perspectives of those persons. Their descriptive terms

were bias, ambivalence, quantitative versus qualitative, decisiveness, and sensitivity.

An example of bias would be the tendency to rate everyone as positive because of an unwitting belief that assignment of negative ratings is socially unacceptable. Consequently, the most negative individual to be rated is given a low positive rating and everyone else receives even higher ratings on P-N scale. Swann and Polley (1985) also noted that in American culture submissiveness carries a very negative connotation, while in Japan it is an esteemed characteristic. Therefore, one would predict that American raters would feel some impetus to rate subjects high on dominance, perhaps.

Ambivalence refers to how much behavior in one direction is necessary to obliterate impressions formed by the rater of behavior that occurred in the opposite direction. For instance, some raters may need to see a great deal of positive behavior to cancel out a preceding act of hostility, whereas others will not demand as much of the opposite behavior before changing their impression. Swann and Polley (1985) pointed out that this ratio tends to be situation-dependent for all raters. Within a work context one emotional act may require a great many task-oriented behaviors to restore the observer's impression to that of neutrality on the F-B scale. But if the

observations were taking place at a social event, the opposite would probably hold true.

The qualitative versus quantitative element refers to the individual rater's tendency to focus on either one aspect or the other. Swann and Polley (1985) hypothesized that for subjects whose levels of activity fall below the group average, the quality of the actions form the salient impressions in the observer's mind. However, when subjects begin to exceed the group average in terms of activity level, the observer will pay more attention to quantity of interaction. The point to be made here is that individual raters will vary as to when they switch from a qualitative focus to a quantitative one.

Decisiveness refers to the tendency of a rater to be more emphatic about all judgments made and assign higher scores on all items. Swann and Polley (1985) explained that higher scores will result in more dispersion among the subjects in field diagrams. Sensitivity describes how closely a rater attends to differences in behavior in one direction versus another. As an example, where animosity is against the norm, unfriendly behaviors may be attended to more closely, and finer distinctions may be made between various unfriendly acts than would be done for friendly behaviors. Again, individual raters can vary in terms of decisiveness and sensitivity.

How the raters of the current study functioned in terms of the above parameters is unknown and beyond the scope of this thesis. However, methods have been described for detailed study of perceptual biases among raters (Bales et al., 1979; Swann & Polley, 1985).

Additional Insights from the Literature on Small Groups

Now that the group configuration and type has been identified, certain discussions drawn from the small groups literature gain new relevance. Some doubt remains in the mind of the principal investigator as to whether the multidisciplinary team studied could be better characterized as unified or tending toward polarization. Kelly and Duran (1986) challenged Parke and Houben's (1985) statistical criteria for differentiating between the two types of groups. The former pair of investigators replicated Parke and Houben's study of group types, using groups of smaller size. Kelly and Duran concluded that some groups formally classified as unified tended to appear polarized and probably should have been placed in the latter category. If Parke and Houben's statistical definition of unification is too liberal, then the polarized diagram of the multidisciplinary team may actually be more correct.

Bales (1988) observed that the most typical form of polarization found in work groups involves a shift of some members in the task-oriented, unfriendly direction, while a few members move into the friendly and less task-oriented quadrant of the field diagram. That description corresponds to the sort of polarization shown in Figure 9 on page 201. However, Polley (1985a) stated that every stable cluster in a field diagram requires both dominant and submissive members. The cluster of two individuals shown in Figure 9 contains two dominant team members only. Therefore, this polarization of the group may have lacked stability. Bales (Bales et al., 1979) remarked that transient images in field diagrams can occur as reflections of temporary departures of a group from its more chronic, stable patterns. That may have been what was seen in the current study. Bales (1988) explained that members of unified groups are not necessarily strong in their unification.

Parke and Houben (1985) verified that unification is not a chance phenomenon. In their study of 96 elementary school classroom groups, 2145 ratings of individual subjects were randomly assigned to hypothetical groups of 25 persons each. Unification never occurred under those circumstances, but unification was found in 11 of the 96 actual groups studied. The researchers concluded that

"unified groups and groups largely unified do not arise from the assemblage of like individuals but from the interaction between individuals" (p. 146). This lends validity to the diagrams generated in the current study, which depict a high degree of proximity among almost all the members of the team.

Parke (1988) offered some additional comments on unification that seem applicable to groups of adults, even though her work was done with children. She noted that unified groups incorporate expressive behaviors, which probably reduce boredom for group members. She also explained that unified groups remain diverse in terms of values and opinions held by the members. Unification in the groups she studied occurred on the basis of friendly, cooperative behaviors, resulting in group locations on the positive side of the SYMLOG field diagram.

Bales (1988) reported that the most effective work groups are located in the positive-forward quadrant of the SYMLOG space. Polley (1985b) concurred. He added that the group should be fairly unified in terms of its work values, citing "'active teamwork toward common goals,' 'responsible idealism, collaborative work,' and 'dedication, faithfulness, loyalty to the organization'" (p. 276) as those needed for maximal productivity and group satisfaction.

Polley (1985b) also pointed out that overly cohesive groups will be less effective. Even though effective work groups need to be unified, there must be enough variation in member behaviors and values to allow those groups to respond to a wide range of situations. Bales (1988) regarded a slight tendency toward polarization as beneficial.

Kelly and Duran (1985) came to a similar conclusion after studying groups of college students who had been assigned to groups for the purposes of completing academic assignments and earning a mutual grade. The most productive groups had a clearly identifiable task leader, maintained cohesion in the face of continued diversity in member behaviors, and allowed relatively equal participation among members. Specifically, these groups showed the most similarity among members on the positive-negative dimension and the most diversity on the forward-backward dimension. They were quite friendly and task-oriented overall.

The observations made by Kelly and Duran (1985) regarding less effective groups are revealing. Some such groups were extremely cohesive, with little diversity among members' behaviors. They were characterized by low task-orientation, which almost implied absence of a task leader, and by much friendliness. Kelly and Duran speculated that

these groups placed a higher priority on getting along than on task accomplishment. It may have been difficult for group members to openly express disagreement where such a norm was in place. Other ineffective groups appeared to be composed of two coalitions which could not accept ideas from the opposing group.

Leaders and mediators are helpful in enabling groups to work together effectively (Bales et al., 1979). They help the group avoid extreme interpersonal constellations which disrupt task accomplishment. Mediators are most likely to be located outside the two predominant clusters of a polarized group, about half way between the two groups, and farther to the positive side of the space. The subject labeled RN-Y in Figure 10 on page 202 is in a good position to be a mediator. However, Bales indicated that a good mediator needs to be fairly dominant, and RN-Y is submissive.

Because the multidisciplinary team studied here contained so many members who were type P (positive) according to Bales' (1970) typology, it seems appropriate to examine a few of the characteristics assigned to them, particularly in terms of leadership behaviors. Bales concluded that although type P individuals value group productivity, the idea of any sort of hierarchy among co-workers for the purposes of task accomplishment is

repugnant to them. He claimed that persons fitting into this category are inclined to endorse the statement "'In any group it is more important to keep a friendly atmosphere than to be efficient'" (p. 260). Bales concluded that although such persons are well-liked members of groups, they are unlikely to function as effective leaders.

Dominant behaviors in groups require some added discussion here. Parke and Houben (1985) observed that dominance is different from the other two dimensions in its effects on group interaction. Acts on the other two dimensions gain in significance when they are expressed with greater assertiveness and when they occupy a greater share of the total interaction time. Thus, dominant individuals add weight to their behaviors on the other two dimensions.

Furthermore, individuals who are similar in terms of the other two dimensions generally like each other more than they like persons at other locations in the SYMLOG space. However, the same is not true for persons exhibiting similar levels of dominance. When one member is dominant in expressing a certain set of behaviors, dominant individuals at other locations in the SYMLOG space have less opportunity to express themselves, which may lead to mutual resentment among the dominant members of the group.

However, the more submissive members who prefer to express behaviors similar to those of a dominant member have less need to do so because that particular set of actions is so fully represented by the dominant individual. In essence, the dominant member at a specific point in the field diagram becomes a spokesperson for those who occupy approximately the same location (Parke & Houben, 1985).

Bales (Bales et al., 1979) acknowledged that some groups suffer from undue dominance on the part of one or more members, to the point that all other members are handicapped in their ability to express themselves in the group.

As a rule, it is quite difficult to moderate the tendencies of very dominant members to overtalk. There is often not much choice but for the rest of the group to combine in complaint and slowly to work out norms of greater restraint on the part of more dominant members. It takes some time for enough other members to recognize what is going on and combine, in spite of their differences, to bring pressure to bear on the more dominant members. It is all the more difficult when those who would prefer a more equal gradient of participation have to increase their participation above their preferred level in order to compete with the more dominant persons. It is often true also that, in spite of some felt dissatisfaction, the more submissive members in fact help to create, by their lack of efforts to participate, the vacuum so willingly filled by the more dominant members (p. 60).

Bales' observation about the submissive members' potential facilitation of overtalking on the part of other members

warrants consideration here. Perhaps the submissive members in the multidisciplinary team fostered the higher levels of participation by others in the team conferences.

Interpretation of Results from the EPPS

The low preferences for deference among the submissive members is a most provocative finding, providing much food for thought. In addition, the high preferences for dominance among two of the three submissive subjects imply that the deference and dominance scales may have been measuring the same underlying motivation.

Various interpretations can be found for the apparent incongruity between motivations and behavior in the submissive subjects of the current study. Skardal and others (1986) used Interaction Process Analysis to study 52 undergraduate psychology students in 13 groups. The subjects were required to reach a unanimous decision, without voting, in order to solve a semi-structured task. Prior to the study, subjects completed a SYMLOG Adjective Rating Form regarding themselves, which the investigators used to classify subjects as high or low in dominance. The investigators found that in mixed-gender groups, individuals who assigned themselves high scores on the dominance-submission dimension actually participated less than those who rated themselves as more submissive. Female subjects who rated themselves highly dominant were observed

to have low levels of total interaction and low levels of instrumental activity.

Skardal and others (1986) hypothesized that the group conditions called for cooperation and negotiation, rather than individual achievement. Under such circumstances, the persons who were dominant by nature were forced to abandon their preferred modes for problem-solving and task accomplishment. This may have been sufficiently unsettling to render those persons less ready to interact. In other words, loss of equanimity leads to passive behavior among fundamentally dominant individuals, when they are placed in group situations defined by collaborative norms.

However, the findings of high dominance, low deference preferences in submissive subjects in the current study could also be looked upon as an effect of the submissive subjects' reaction to their lack of influence in the group. Nowack (1987) studied several small groups using self-reports of group members on SYMLOG Adjective Rating Forms. Subjects were asked to rate themselves according to their ideal perception of themselves as members of the specific group in question, and again as they actually perceived themselves in that group. He found that when subjects preferred to be more task-oriented than they actually were, they also reported a more dominant ideal self-image.

Nowack interpreted this as a "wish on the fantasy level to be more powerful in a group" (p. 185).

A parallel can also be found in Rokeach and Parker's (1970) study of values among white and black Americans and persons of high and low socioeconomic status. From a set of 18 terminal values, whites ranked "equality" 12th, while blacks rated it 2nd. The rich ranked "clean" 17th, while the poor placed it in the 2nd position. In the same vein, Williams used the EPPS to study 54 male college students in 1964. He found that the scores on the 15 scales largely conformed to what one would expect in terms of Maslow's hierarchy of needs. Lower level needs which were presumably met were ranked among the lowest on the EPPS, while higher level needs, which in all probability remained partially unmet, were ranked highest. There was one major exception in this group of subjects, however. The male college students ranked heterosexuality the highest of all. Williams speculated that the subjects were experiencing some difficulty in meeting that particular need.

Thus, the submissive members of the current study may have been acutely aware of their low levels of participation. This could have rendered them sufficiently dissatisfied with their status to cause them to unconsciously select the choices on the EPPS that would cast them in a dominant group role. In similar fashion,

they may have avoided those choices that would portray them as submissive.

Difficulties remain in assessing just what the EPPS profiles really indicate in this study. Nowack (1987) revealed that respondents can take a variety of perceptual stances when completing a self-report form. They can describe their real self-perception in general or as it stands in a specific group context. Subjects can address their ideal self-image, or they can describe their anticipated impression in the eyes of others, either in general or in a given setting. Although the instructions for the EPPS cue the respondent to think in terms of the actual self, rather than the preferred self, one cannot be certain that the subjects read the instructions fully or were able to adhere to that guideline. Hogan and Nicholson (1988) reiterated the premise that self-report measures can only be trusted as representations of the ideal self-image. However, they added that ideal self-image can serve as a valid predictor of social behavior.

Furthermore, each respondent probably brings unique interpretations to the words used in any written test. Researchers cannot assume the subjects will assign the same meanings to the questions (Kagan, 1988). Other perceptions may also influence the subjects' responses. Will respondents to the EPPS assume they are making their

choices on the basis of relative harmony in the hypothetical situation, or will they imagine themselves making choices in a situation of conflict? According to Porter (1976), such a distinction has a substantial effect on which behaviors are endorsed by persons who complete self-report instruments.

Kagan (1988) restated two of the widely acknowledged problems with self-report instruments. One is that most persons have only partial awareness of the feelings, thoughts or motives which evoke their own characteristic set of behaviors. Thus, it is unlikely that subjects can provide a genuine report of their underlying motivations. Second, the number of possible explanations for individual endorsement of personality test items is unlimited. Thus, the findings on the EPPS for the current study do not enable the investigator to make any definite interpretations.

Interpretation of Results from the Interviews and Nominal Observations

Although some of the interview data have been alluded to in the preceding sections, selected findings will be reiterated here, along with discussion of what meaning can and cannot be found in those results. Nurses were not very explicit about what information they wished to contribute

to team discussions but tended to withhold. Therefore, it was difficult to know just how important that information really was. However, S. Burns and Stalker (1961) assigned great importance to removal of barriers between team members, implying that any sort of hesitancy to speak out on the part of one or more members would be detrimental to team functioning. Therefore, the reluctance of the nurses in this study to share some of their thoughts with the rest of team must be regarded as undesirable.

Parallels are also evident between some the nurses' statements and both the predictions made by Mintzberg (1979) and the observations reported by other authors regarding multidisciplinary health care teams. For instance, role ambiguity and role conflict were predicted for Adhocracies, as well as for multidisciplinary health care teams. Nurses on this team referred to confusion and disagreement about which disciplines could and should provide psychosocial interventions to patients. Benfer (1980) and Farrell and others (1986) spoke of the inevitability of intra-team conflict regarding issues of authority. Again, the interviews in this study resulted in the acknowledgement of similar problems in the team, even though behaviors at team conferences did not reflect open animosity.

Nurses reported joking, laughter and irrelevant discussion as a common component of the team meetings. These reports are consistent with the prediction of Ducanis and Golin (1979) that such behavior is common in an informal, relaxed atmosphere. The levity may have been an unconscious attempt to lower the communication barriers between members. S. Burns and Stalker (1961) claimed that humor could be a very useful means to that end.

Nurses reported that team discussions were not productive in terms of generating new patient care interventions. That observation conflicts with the claim that Adhocracy strives to adapt its services to client needs (Mintzberg, 1979). The team in this study may have been a collection of "professional bureaucrats" who were going through the motions of teamwork. It is important to remember that in Professional Bureaucracy, mutual adjustment will be actively resisted.

The team in question may not have come to the realization that time spent in communication must be increased substantially in order to reap the benefits of the team approach (Mintzberg, 1979). Conference time amounted to only two hours per week. The psychiatric teams studied by Toseland and others (1986) averaged four hours of group conference per week. Although team caseloads were not reported, the added exposure of all members to group

discussion and problem solving may have partly accounted for the high levels of satisfaction reported by team members in that study.

Answers to the Research Question

Returning to the original question--what factors affect verbal contributions by nurses in multidisciplinary team conferences--the author must admit to not being much closer to the truth of the matter than before. Nonetheless, the thrust of the study was to explore the issue and investigate the current levels of nurse participation, as a means to determine more pertinent research questions for the future. In light of the findings, the original question still seems to be one that is worth asking. The low preferences for deference among submissive subjects, coupled with Thomas' (1989) data revealing very similar responses among a number of graduate students in nursing, suggest that nurses may not be satisfied with their working relationships in a variety of settings.

Although the case study approach does not permit generalization of findings to other populations, the demographic data reported earlier may permit individual readers to ascertain whether the subjects in this study are similar to other multidisciplinary teams known to those readers. Where similarities are found, the results may

have some utility in interpreting the interactions of those other groups.

Implications

Suggestions for Further Research

The author is not aware of the SYMLOG Adjective Rating Form having been used before in nursing research. Other nurse researchers are encouraged to explore similar, as well as different, applications for this instrument in attempting to answer nursing questions. Only with continued use can the instrument be perfected as a psychometric tool.

If this study were to be replicated, the author would suggest that the Normative Edwards Personal Preference Schedule (N-EPPS) developed by Sherman and Poe (1972) be substituted for the EPPS. The former instrument avoids the ipsative scaling of the latter. Two of the subjects in this study returned test forms with low consistency scores. Edwards (1959) hypothesized that low consistency scores can be due to subjects' attempts to disguise their characteristics, or ambivalence, or irritation with the forced choice format. Haste might be another plausible explanation. The N-EPPS abandons the forced choice format, replacing it with Likert scales. Thus, the total number of

test items is reduced to the 135 different statements from the original test. Use of the N-EPPS would eliminate some of the features of the EPPS which possibly foster inconsistent responses by individual subjects.

Greater knowledge of the perceptions of team members would also be useful. The revised Individual and Organizational Values Rating Form described by Polley (1986), and the Moos' Group Environment Scale (1974), are recommended as potentially useful tools. They both appear to be sufficiently brief to avoid a large increase in the demands made upon subjects for paperwork.

Many SYMLOG specialists obtain their field diagrams by asking all members of a group to fill out a set of SYMLOG Adjective Rating Forms describing themselves and each other (Bales et al., 1987; Becker & Schneider, 1985, as cited in Wunder, 1987). With relatively large groups, such a request could engender resistance from the subjects because they might not want to fill out so many forms. Rywick (1987a) examined the reliability and concurrent validity of an eight-item form derived from the SYMLOG Adjective Rating Form. He found it to be equally, if not more, reliable than the 26-item revised form, and that both forms correlated well with each other in terms of results generated. This looks like an appealing alternative to the longer form.

Numerous other subsidiary questions could have been generated for use with the current study. For instance, operational definitions could have been found for assertiveness, professional self-image, decision-making competence, verbal skills and abilities, styles of speech, propensity to take risks, career orientation, and nature and duration of socialization in nursing. All of these factors could have affected the nurses' verbal contributions in team conferences. This list is by no means exhaustive.

In the course of researching the literature, the author discovered several instruments that could have been useful, had there been subsidiary questions requiring the sort of information those instruments promised to reveal. Loevinger's Sentence Completion Test of Ego Development (Loevinger & Wessler, 1970) yields a typology that could potentially place some nurses in the conformist stage of ego development. If such were the case, it might explain passive behaviors by some nurses.

Wagner and Wells (1985) are developing a 12-item instrument designed to determine preferences for activities associated with right and left brain dominance. They tested the instrument with a group of 104 nurses and substantiated their prediction that the majority of nurses are seemingly right brain dominant. Nurses seem to prefer

activities involving manipulation of tangible objects, such as carpentry and the rearranging of furniture, as well as successful control of spatial relationships, such as those that occur in athletic activity and operation of air traffic control towers. This aspect of right brain dominance differs from that of creativity, which was found among right-brain dominant individuals in some other professional groups. The point of all this discussion is that verbal and analytic skills are allegedly the forte of the left-brain dominant individuals, and those persons may be the ones who are best able to carry their points in multidisciplinary team conferences. Since those people are fluent in speech, they may be better at "tooting their own horn," so to speak. It would be intriguing to try to study the influence of brain dominance on levels of verbal participation in team conferences.

Ridgeway (1983) identified a comprehensive framework of general factors affecting individual and group performance. Each one of her general factors could be used to generate additional subsidiary questions, which in turn could result in explication of the factors affecting nurses' verbal contributions during team conferences. Ridgeway's factors included individual skills, knowledge and personal characteristics; group structure, norms, cohesion, and stage of development, among others; and

environmental factors such as the nature of the group task, the rewards offered for successful group work, the prevailing social situation, and the degree of stress inherent to the circumstances of the group.

Other researchers could use the current study as the basis for identifying more specific research questions. One such question might be, do nurses with low preferences for deference actually work in situations where they are often deferential to others? Another approach could be that taken by Kramer and Schmalenberg (1976), who interviewed 220 practicing nurses selected on the basis of their representing one of three groups: more successful than average, average, and less successful than average. Successful nurses made more references to collaboration in their practice. The investigators concluded that these nurses had a stronger sense of power to direct the course of events, and that they had used this ability to obtain personal satisfaction and recognition. These individuals sound like excellent multidisciplinary team members. It would be interesting to determine how their success came about and how it might be transferred to nurses who have experienced less success in their work.

Implications for the Nursing Profession

The nursing profession needs to prepare its members for work in a variety of organizational structures, with

increased attention given to membership in the organic structures. Mintzberg (1979) predicted that Adhocracy will become the organizational structure of the future. The working population is now better educated and more specialized, and these new professionals demand a forum in which to practice their skills. There is also a movement afoot to "adopt the systems approach--to view the world as an integrated whole instead of a collection of loosely coupled parts" (p. 459). Mintzberg added that Adhocracy certainly appears consistent with American norms which place high value on democracy. Bureaucracy, in its autocratic way, has engendered much antipathy among American workers, and they are ready to try something else.

Specifically, nurses need to place a high priority on facilitating multidisciplinary teamwork. This may entail more than just conscientious membership on the part of individual nurse members. Nurses particularly need to address the integration of submissive members into multidisciplinary teams, regardless of which professions those persons might happen to represent.

As further testimony to the worth of true collaboration among disciplines, an ethnographic study by McKeganey and Bloor (1987) conducted in two psychiatric settings is described here. The investigators used participant observation, interviews, and audiotaping to

examine the interprofessional communication patterns in these "therapeutic communities".

In one setting the therapeutic community model was found to be much more fully implemented. There was significant integration of therapeutic work into the informal interactions occurring outside the context of organized group sessions. The researchers noted greater pooling of information among the staff, which was composed of three psychiatrists, four psychiatric nurses and an occupational therapist, among others. A review session for all staff took place after each small group therapy session, so that staff members who were not present knew about patient problems and the treatment methods being utilized (McKeganey & Bloor, 1987).

By contrast, the other so-called therapeutic community was hampered by the absence of information sharing among the staff. Although there was a weekly staff meeting, the so-called "clinical" staff never attended any nursing change-of-shift meetings, effectively eliminating most nurses from carrying on any of the therapeutic work that had been initiated by the psychiatrists. Patients in this setting often had an air of waiting for time to pass until the next formal group session, and showed much more interest in attending those groups directed by

psychiatrists than in those organized by nurses (McKeganey & Bloor, 1987).

McKeganey and Bloor (1987) concluded that increased levels of communication among staff resulted in increased communication between staff and patients, and among patients, themselves. The effects of increased interaction were deemed therapeutic and desirable. Additionally, all team members functioned on a much more equal footing. Although these two investigators did not describe the nature of interprofessional interactions at meetings among the staff, their account supports the value of frequent team conferences in providing high quality patient care.

The preceding description certainly describes what professional nurses wish to both endorse and avoid in the practice of nursing and in the practice of multidisciplinary health care. Based on the reports of Farrell and his associates (1986; 1988) nurses need not succumb to cynicism regarding the potential for satisfying teamwork with other professions. However, most professions probably need to be educated regarding group processes, and as working teams be willing to seek help in progressing to a productive stage of development. The nursing profession may wish to consider both obtaining the services of consultants from other fields and developing its own

members as specialists in multidisciplinary team development.

Nurse administrators in health care institutions may wish to take specific action to foster effective multidisciplinary teamwork by the nurses in their employ. Assertiveness training for nursing staff is the most obvious place to begin, but nurses may not apply new skills until the spectre of verbal abuse by physicians has been removed. One institution allegedly announces a "code" over the unit intercom whenever such abuse is in progress. This announcement is similar to the "code blue" that is called when a patient has suffered a cardiac arrest and a team must assemble to resuscitate the patient. In the case of verbal abuse, other nurses promptly leave their immediate tasks and proceed to the identified location where they quietly stand adjacent to the nurse who is the object of the physician's invective. D. Ustul (personal communication, April 7, 1989) reported that the growing assemblage of nurses facing the offending physician had been very effective in diminishing abusive behaviors on the part of such individuals. Certainly this method deserves to be tried elsewhere.

Nurse administrators also need to investigate means to reduce status barriers between nurses and other professionals in the health care setting, and improving the

performance expectations of nurses by members of other disciplines would be an important corollary to that goal. Increasing the legal prerogatives of nurses may be one way to do this. Specifically, nurse practitioners might be more widely employed because of their ability to exercise independent judgment in medical matters, if operating within an established protocol. Protocols might also be devised for various members of multidisciplinary teams so that they could function with more authority in caring for team patients.

Finally, nurse administrators need to lobby for creation of a nursing board in each institution which will periodically review the hospital privileges of individual physicians. Currently, this critical feedback loop is missing in health care institutions. Such a mechanism is not an unheard of innovation. Lydia Hall, nursing theorist, allegedly possessed such powers when she conducted the demonstration project for primary nursing.

Nursing educators have a vital role to play in reshaping the interprofessional relationships of practicing nurses. First, educators should strive to actively recruit students from diverse backgrounds. This could help counter the widespread stereotyping of nurses as passive, ill-formed females. Second, nursing faculties should consider greater use of the joint appointment in which nursing

educators continue to work part-time in the clinical setting. Those faculty should be able to bring their students into the activities of the patient care units on which the teachers serve. In that manner students could gain a first-hand impression of the way in which their teachers conduct their interprofessional relationships. It would be ideal if these faculty were active members of multidisciplinary teams and if students could become team members themselves.

A third suggestion for nursing educators is to consider greater clinical specialization at the undergraduate level. If students were to spend an entire year assigned to one particular patient care unit and one small group of faculty, true working relationships might eventually develop. The current practice is to assign undergraduate students to a large number of clinical sites in rapid order. Such a frenetic pace makes it almost impossible for students to assess the working relationships of the nurses who staff those units, let alone identify the allied professionals and their particular roles. The suggested approach would also require acknowledgement that individual nurses cannot be all things to all people, thus alleviating the need to expose each student to every clinical specialty.

Fourth, educators could make revisions in nursing curricula, allowing greater discussion of interpersonal skills needed for collaborative work, understanding of group processes, and full awareness of the social and cultural history of nursing. These topics deserve as much emphasis as is currently given to medical ethics at the undergraduate level, and as much emphasis as is now given to nursing theory at the graduate level.

Nurses need to dispel the old stereotypes and myths about themselves in order to function in a truly professional manner. However, destroying old stereotypes will require real change in nurses' behaviors on a widespread basis. In addition to the above suggestions, nurses also need to take an interest in reshaping the roles of women in Western culture. At present the status of women in general continues to be vital in determining the status of nurses as professional caregivers.

Summary

Nurses were not the most dominant professional group in the multidisciplinary team studied. The group may not have realized the full potential of its nurse members because they did not always feel free to share their information, opinions and suggestions regarding patient care. Submissive members proved to be a group worthy of

further study. These individuals may have been experiencing significant dissatisfaction with their low levels of participation. Because submissive members in this study were drawn from several professions, including nursing, the concern for integration of all members into health care teams extends to many professions beyond that of nursing alone. This mutuality of concern could, in itself, serve as a basis for greater cooperation among disciplines in both research and practice.

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APPENDIXES

APPENDIX A

Modified SYMLOG Adjective Rating Form

Key: D = disagree; SL-A = slightly agree; Mod-A = moderately agree;
 * = agreement > moderate, < strong; Str-A = strongly agree

		<u>extent of agreement</u>				
		D	SL-A	Mod-A	*	Str-A
U	active, dominant, talks a lot	/	/	/	/	/
UP	extroverted, outgoing, positive	/	/	/	/	/
UPF	a purposeful democratic task leader	/	/	/	/	/
UF	an assertive business-like manager	/	/	/	/	/
UNF	authoritarian, controlling, disapproving	/	/	/	/	/
UN	domineering, tough-minded, powerful	/	/	/	/	/
UNB	provocative, egocentric, shows off	/	/	/	/	/
UB	jokes around, expressive, dramatic	/	/	/	/	/
UPB	entertaining, sociable, smiling, warm	/	/	/	/	/
P	friendly, equalitarian	/	/	/	/	/
PF	works cooperatively with others	/	/	/	/	/
F	analytical, task-oriented, problem-solving	/	/	/	/	/
NF	legalistic, has to be right	/	/	/	/	/
N	unfriendly, negativistic	/	/	/	/	/
NB	irritable, cynical, won't cooperate	/	/	/	/	/
B	shows feelings and emotions	/	/	/	/	/
PB	affectionate, likeable, fun to be with	/	/	/	/	/
DP	looks up to others, appreciative, trustful	/	/	/	/	/
DPF	gentle, willing to accept responsibility	/	/	/	/	/
DF	obedient, works submissively	/	/	/	/	/
DNF	self-punishing, works too hard	/	/	/	/	/
DN	depressed, sad, resentful, rejecting	/	/	/	/	/
DNB	alienated, quits, withdraws	/	/	/	/	/
DB	afraid to try, doubts own ability	/	/	/	/	/
DPB	quietly happy just to be with others	/	/	/	/	/
D	passive, introverted, says little	/	/	/	/	/

APPENDIX B

Consent Form

1. In agreeing to participate in this research project on communication in small work groups that include nurses, I am giving permission to be observed by the principal investigator and research assistant at Gero-Psych team meetings for a period of up to 10 weeks. The information obtained is expected to promote professionalism among nurses and contribute to better patient care.
2. I will be asked to provide basic biographical data (form will require less than 5 minutes) and to fill out a paper-and-pencil test (test will require 45 minutes). I will be allowed to complete these documents at my convenience during the 5 to 10-week period when observations are being made.
3. If I am a nurse, I will be asked to provide a 30 minute, one-to-one interview with the principal investigator at the end of the study. I can choose to offer the investigator a longer interview at my discretion.
4. I may request that the principal investigator meet with me at Baptist Hospital at a mutually convenient time to review study findings after the study is completed. This discussion will include the results of my paper-and-pencil test. I may benefit from the self-knowledge provided me by the test.
5. My identity and the identities of my patients will be kept confidential. This will minimize any risks associated with the study. Only authorized persons will have access to recorded data, which will be stored in locked files in the Research Center, College of Nursing. Code numbers will replace subject names on aggregate data forms. Any reports emanating from this research will obscure subject identities. Patient names will not be written at any time, as patients will not be the subjects of research.
6. Answers to pertinent questions may be obtained by contacting Margaret MacVean, UTK College of Nursing, 974-7581.

7. My participation in this project is voluntary. I will not be penalized if I refuse to participate. I may withdraw at any time without penalty.

Signature _____

Date _____

APPENDIX C

Consent Form for Audiotaping

I consent to the audiotaping of the Gero-Psych team meetings. I understand 1) that an observer will be present for 10 sessions, 2) that the purpose is to gather data for communication research, 3) that no one but persons authorized by the Research Center, College of Nursing will have access to the tapes, 4) that the content of all meetings will be held in strict confidence, 5) that the identities of all subjects will be kept confidential and 6) that the tapes will be erased at the end of the study.

EXPLANATION OF TAPING FOR RESEARCH PURPOSES

1. Taping allows for less bias in analysis of tapes.
2. While in the hands of the researchers, the tapes will be used for research purposes only.
3. The principal investigator, the research assistants, and the thesis committee members are the only persons who will have access to the tapes.
4. Tapes will be stored in locked file cabinets at Research Center, 301 College of Nursing, or in a locked briefcase while in transit.
5. Tapes will be reviewed only in the Research Center, College of Nursing. Persons analyzing tapes must use headphones while doing so.
6. Transcription of tapes will be limited to sentence fragments and will be for the purpose of separating the identities of speakers for a research assistant, who must listen to tapes without the aid of direct observation.
7. All persons listening to tapes must sign a written oath stating they will refrain from discussing team members, patients, or meeting content with any persons except those associated with this project and then only for the purposes of conducting the research and interpreting the findings.

Date: _____
Signature: _____

For further information contact:
Margaret L. MacVean, UTK College of Nursing 974-7581

APPENDIX D

Biographical Questionnaire

Name: _____

Sex: _____

Age: _____

What diplomas or degrees do you hold? _____

What is your occupation? _____

What is your job title? _____

What is your race? _____

How long have you served as a member of this team? _____

Why did you choose your particular profession? _____

Do you report directly to any person who is a regular participant in team meetings, and if so, who is that person?

APPENDIX E

Interview Outline

Did you have one or more assigned functions during the meetings? What were they? Do you agree that those functions were appropriate for you? If not, why do you feel that way?

How much patient contact did you have in your work assignment during the weeks of team observation? If you had had more patient contact, do you think you would have had more to say during the meetings?

Please describe one or more instances when you would have preferred to contribute additional information, opinions, or suggestions during the team conferences.

Please name any team members who perhaps could have been contributing more information, opinions or suggestions. What might those contributions have been?

Please describe one or more instances when you disagreed with another team member's information, opinion, or suggestion for patient care, emphasizing any such instances when you did not present your own point of view.

What degree of freedom did you perceive that you had to amend the information, opinion, or suggestions put forth by another nurse, the physician, the dietitian, the occupational therapist, the social workers, or the clinical psychologist?

Do you regard yourself as typical of nurses in your verbal skills? If not, how do you differ?

Do you regard yourself as typical of nurses in your interactions with a multidisciplinary team? If not, how do you differ?

Are there topic areas that the team neglected to discuss? If so, what were they? Who on the team should own the responsibility for introducing these topics?

Do you think there were team members who overtalked? Do you choose to share who those persons were? Was the group successful in containing such behavior? If so, how was this handled and what roles did you play?

Other questions were also asked at the discretion of the interviewer.

[illegible]

SUBJECT: AP-X	0	1	2	3	4
active, dominant, talks a lot		.			
extroverted, outgoing, positive		+ \\\ \\\ \\\ \\\ \\\ \\\ 0			
a purposeful democratic task leader	.				
an assertive business-like manager	+ \\\ \\\ \\\ \\\ \\\ \\\ 0				
authoritarian, controlling, disapproving	.				
domineering, tough-minded, powerful	.				
provocative, egocentric, shows off	.				
jokes around, expressive, dramatic	+ \\\ \\\ \\\ \\\ \\\ \\\ 0				
entertaining, sociable, smiling, warm		.			
friendly, equalitarian		0 \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ +			
works cooperatively with others				.	
analytic, task-oriented, problem-solving	0 \\\ \\\ \\\ \\\ \\\ \\\ +				
legalistic, has to be right	.				
unfriendly, negativistic	.				
irritable, cynical, won't cooperate	.				
shows feelings and emotions		.			
affectionate, likeable, fun to be with		.			
looks up to others, appreciative, trustful			+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0		
gentle, willing to accept responsibility					.
obedient, works submissively		0 \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ +			
self-punishing, works too hard	.				
depressed, sad, resentful, rejecting	+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0				
alienated, quits, withdraws	.				
afraid to try, doubts own ability	+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0				
quietly happy just to be with others				.	
passive, introverted, says little				+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0	

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

•=score assigned by both raters

0=disagree

+=score assigned by principal investigator 1=slightly agree

0=score assigned by research assistant 2=moderately agree

3=moderately to strongly agree

4=strongly agree

SUBJECT: AP-Y	0	1	2	3	4
active, dominant, talks a lot		0 \\\ \ \ \ \ \ \ \ +			
extroverted, outgoing, positive		0 \\\ \ \ \ \ \ \ \ +			
a purposeful democratic task leader	•				
an assertive business-like manager	•				
authoritarian, controlling, disapproving	+ \\ \ \ \ \ \ \ \ \ 0				
domineering, tough-minded, powerful	•				
provocative, egocentric, shows off	0 \\ \ \ \ \ \ \ \ +				
jokes around, expressive, dramatic		•			
entertaining, sociable, smiling, warm				•	
friendly, equalitarian		0 \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ +			
works cooperatively with others				0 \\ \ \ \ \ \ \ \ \ +	
analytic, task-oriented, problem-solving	+ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ 0				
legalistic, has to be right	•				
unfriendly, negativistic	+ \\ \ \ \ \ \ \ \ \ 0				
irritable, cynical, won't cooperate	•				
shows feelings and emotions			•		
affectionate, likeable, fun to be with	0 \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ +				
looks up to others, appreciative, trustful		+ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ 0			
gentle, willing to accept responsibility		+ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ 0			
obedient, works submissively	0 \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ \\ \ \ \ \ \ \ \ \ +				
self-punishing, works too hard	•				
depressed, sad, resentful, rejecting	+ \\ \ \ \ \ \ \ \ \ 0				
alienated, quits, withdraws	•				
afraid to try, doubts own ability	•				
quietly happy just to be with others		•			
passive, introverted, says little		+ \\ \ \ \ \ \ \ \ \ 0			

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

+ = score assigned by both raters	0 = disagree
+ = score assigned by principal investigator	1 = slightly agree
0 = score assigned by research assistant	2 = moderately agree
	3 = moderately to strongly agree
	4 = strongly agree

SUBJECT: AP-Z	0	1	2	3	4
active, dominant, talks a lot	•				
extroverted, outgoing, positive	+ \ \ \ \ \ \ \ \ \ \	0			
a purposeful democratic task leader	•				
an assertive business-like manager	•				
authoritarian, controlling, disapproving	•				
domineering, tough-minded, powerful	•				
provocative, egocentric, shows off	•				
jokes around, expressive, dramatic	+ \ \ \ \ \ \ \ \ \ \	0			
entertaining, sociable, smiling, warm	•				
friendly, equalitarian		0 \ \ \ \ \ \ \ \ \ \	+		
works cooperatively with others			+ \ \ \ \ \ \ \ \ \ \	0	
analytic, task-oriented, problem-solving	0 \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \	+
legalistic, has to be right	•				
unfriendly, negativistic	+ \ \ \ \ \ \ \ \ \ \	0			
irritable, cynical, won't cooperate	•				
shows feelings and emotions	+ \ \ \ \ \ \ \ \ \ \	0			
affectionate, likeable, fun to be with		•			
looks up to others, appreciative, trustful	+ \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \	0	
gentle, willing to accept responsibility			+ \ \ \ \ \ \ \ \ \ \	0	
obedient, works submissively				0 \ \ \ \ \ \ \ \ \ \	+
self-punishing, works too hard	0 \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \	+		
depressed, sad, resentful, rejecting	+ \ \ \ \ \ \ \ \ \ \	0			
alienated, quits, withdraws	0 \ \ \ \ \ \ \ \ \ \	+			
afraid to try, doubts own ability	+ \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \	0		
quietly happy just to be with others		0 \ \ \ \ \ \ \ \ \ \	+		
passive, introverted, says little					•

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

•=score assigned by both raters	0=disagree
+ =score assigned by principal investigator	1=slightly agree
0=score assigned by research assistant	2=moderately agree
	3=moderately to strongly agree
	4=strongly agree

SUBJECT: DR-X	0	1	2	3	4
active, dominant, talks a lot				0 \\\ \\\ \\\ \\\ +	
extroverted, outgoing, positive				•	
a purposeful democratic task leader	+ \\\ \\\ \\\ \\\ 0				
an assertive business-like manager	+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0				
authoritarian, controlling, disapproving	0 \\\ \\\ \\\ \\\ +	'			
domineering, tough-minded, powerful	•				
provocative, egocentric, shows off	0 \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ +				
jokes around, expressive, dramatic			+ \\\ \\\ \\\ \\\ 0		
entertaining, sociable, smiling, warm				•	
friendly, equalitarian			+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0		
works cooperatively with others		+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0			
analytic, task-oriented, problem-solving			+ \\\ \\\ \\\ \\\ 0		
legalistic, has to be right	0 \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ +				
unfriendly, negativistic	•				
irritable, cynical, won't cooperate	•				
shows feelings and emotions			+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0		
affectionate, likeable, fun to be with			+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0		
looks up to others, appreciative, trustful			+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0		
gentle, willing to accept responsibility		+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0			
obedient, works submissively	•				
self-punishing, works too hard	•				
depressed, sad, resentful, rejecting	•				
alienated, quits, withdraws	•				
afraid to try, doubts own ability	•				
quietly happy just to be with others	+ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ \\\ 0				
passive, introverted, says little	•				

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

•=score assigned by both raters	0=disagree
+ =score assigned by principal investigator	1=slightly agree
0=score assigned by research assistant	2=moderately agree
	3=moderately to strongly agree
	4=strongly agree

SUBJECT: DR-Y	0	1	2	3	4
active, dominant, talks a lot		0 \ \ \ \ \ \ \ \ \ +			
extroverted, outgoing, positive	+ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 0				
a purposeful democratic task leader		•			
an assertive business-like manager	•				
authoritarian, controlling, disapproving	•				
domineering, tough-minded, powerful	•				
provocative, egocentric, shows off	•				
jokes around, expressive, dramatic		•			
entertaining, sociable, smiling, warm		•			
friendly, equalitarian		0 \ \ \ \ \ \ \ \ \ +			
works cooperatively with others			+ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 0		
analytic, task-oriented, problem-solving					•
legalistic, has to be right	•				
unfriendly, negativistic	•				
irritable, cynical, won't cooperate	•				
shows feelings and emotions	+ \ \ \ \ \ \ \ \ \ 0				
affectionate, likeable, fun to be with		•			
looks up to others, appreciative, trustful		+ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 0			
gentle, willing to accept responsibility				+ \ \ \ \ \ \ \ \ \ 0	
obedient, works submissively	0 \ \ \ \ \ \ \ \ \ +				
self-punishing, works too hard	•				
depressed, sad, resentful, rejecting	•				
alienated, quits, withdraws	•				
afraid to try, doubts own ability	•				
quietly happy just to be with others		+ \ \ \ \ \ \ \ \ \ 0			
passive, introverted, says little			•		

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

•=score assigned by both raters	0=disagree
+=score assigned by principal investigator	1=slightly agree
0=score assigned by research assistant	2=moderately agree
	3=moderately to strongly agree
	4=strongly agree

SUBJECT: RN-X	0	1	2	3	4
active, dominant, talks a lot		•			
extroverted, outgoing, positive			•		
a purposeful democratic task leader	0 \\\	\\\\\\	+		
an assertive business-like manager	0 \\\	+			
authoritarian, controlling, disapproving	•				
domineering, tough-minded, powerful	•				
provocative, egocentric, shows off	•				
jokes around, expressive, dramatic		•			
entertaining, sociable, smiling, warm		+ \\\	0		
friendly, equalitarian		0 \\\	\\\\\\	\\\\\\	+
works cooperatively with others				0 \\\	+
analytic, task-oriented, problem-solving	0 \\\	\\\\\\	+		
legalistic, has to be right	•				
unfriendly, negativistic	•				
irritable, cynical, won't cooperate	•				
shows feelings and emotions			+ \\\	0	
affectionate, likeable, fun to be with		0 \\\	\\\\\\	\\\\\\	+
looks up to others, appreciative, trustful		+ \\\	0		
gentle, willing to accept responsibility				•	
obedient, works submissively	0 \\\	\\\\\\	\\\\\\	\\\\\\	+
self-punishing, works too hard	•				
depressed, sad, resentful, rejecting	•				
alienated, quits, withdraws	•				
afraid to try, doubts own ability	•				
quietly happy just to be with others		+ \\\	0		
passive, introverted, says little	+ \\\	0			

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

•=score assigned by both raters	0=disagree
+ =score assigned by principal investigator	1=slightly agree
0=score assigned by research assistant	2=moderately agree
	3=moderately to strongly agree
	4=strongly agree

SUBJECT: RN-Y	0	1	2	3	4
active, dominant, talks a lot		.			
extroverted, outgoing, positive			.		
a purposeful democratic task leader	.				
an assertive business-like manager	.				
authoritarian, controlling, disapproving	.				
domineering, tough-minded, powerful	.				
provocative, egocentric, shows off	.				
jokes around, expressive, dramatic	+ \\\\\\\ 0				
entertaining, sociable, smiling, warm		.			
friendly, equalitarian				.	
works cooperatively with others					.
analytic, task-oriented, problem-solving		0 \\\\\\\ \\\\\\\ \\\\\\\ +			
legalistic, has to be right	.				
unfriendly, negativistic	.				
irritable, cynical, won't cooperate	.				
shows feelings and emotions		+ \\\\\\\ 0			
affectionate, likeable, fun to be with		+ \\\\\\\ \\\\\\\ 0			
looks up to others, appreciative, trustful					.
gentle, willing to accept responsibility					.
obedient, works submissively		0 \\\\\\\ \\\\\\\ \\\\\\\ +			
self-punishing, works too hard	0 \\\\\\\ \\\\\\\ +				
depressed, sad, resentful, rejecting	.				
alienated, quits, withdraws	.				
afraid to try, doubts own ability	.				
quietly happy just to be with others					.
passive, introverted, says little				.	

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

+ = score assigned by both raters	0 = disagree
+ = score assigned by principal investigator	1 = slightly agree
0 = score assigned by research assistant	2 = moderately agree
	3 = moderately to strongly agree
	4 = strongly agree

SUBJECT: SW-X	0	1	2	3	4
active, dominant, talks a lot			0 \\\\\\\	\\\\\\	+
extroverted, outgoing, positive	+ \\\\\\\	\\\\\\	0		
a purposeful democratic task leader	0 \\\\\\\	+			
an assertive business-like manager		0 \\\\\\\	+		
authoritarian, controlling, disapproving	0 \\\\\\\	+			
domineering, tough-minded, powerful	•				
provocative, egocentric, shows off	•				
jokes around, expressive, dramatic		+ \\\\\\\	0		
entertaining, sociable, smiling, warm	+ \\\\\\\	\\\\\\	\\\\\\	0	
friendly, equalitarian	+ \\\\\\\	\\\\\\	\\\\\\	0	
works cooperatively with others					•
analytic, task-oriented, problem-solving		0 \\\\\\\	\\\\\\	\\\\\\	+
legalistic, has to be right	0 \\\\\\\	+			
unfriendly, negativistic	0 \\\\\\\	+			
irritable, cynical, won't cooperate	•				
shows feelings and emotions	+ \\\\\\\	\\\\\\	\\\\\\	\\\\\\	0
affectionate, likeable, fun to be with	+ \\\\\\\	\\\\\\	\\\\\\	\\\\\\	0
looks up to others, appreciative, trustful	+ \\\\\\\	\\\\\\	\\\\\\	\\\\\\	0
gentle, willing to accept responsibility			+ \\\\\\\	\\\\\\	0
obedient, works submissively	0 \\\\\\\	\\\\\\	+		
self-punishing, works too hard		•			
depressed, sad, resentful, rejecting	•				
alienated, quits, withdraws	•				
afraid to try, doubts own ability	•				
quietly happy just to be with others	+ \\\\\\\	\\\\\\	\\\\\\	\\\\\\	0
passive, introverted, says little	•				

COMPARISON OF SYMLOG SCORES BETWEEN RATERS FOR EACH SUBJECT

•=score assigned by both raters	0=disagree
+ =score assigned by principal investigator	1=slightly agree
0=score assigned by research assistant	2=moderately agree
	3=moderately to strongly agree
	4=strongly agree

SUBJECT: SW-Y	0	1	2	3	4
active, dominant, talks a lot			0 \\\\\\\\\\\\\\\	\\\\\\\\\\\\\\\\\\+	
extroverted, outgoing, positive				0 \\\\\\\\\\\\\\\+	
a purposeful democratic task leader	•				
an assertive business-like manager	+ \\\\\\\\\\\\\\\0				
authoritarian, controlling, disapproving	•				
domineering, tough-minded, powerful	•				
provocative, egocentric, shows off	•				
jokes around, expressive, dramatic			0 \\\\\\\\\\\\\\\	\\\\\\\\\\\\\\\\\\+	
entertaining, sociable, smiling, warm					•
friendly, equalitarian					•
works cooperatively with others					•
analytic, task-oriented, problem-solving		•			
legalistic, has to be right	•				
unfriendly, negativistic	•				
irritable, cynical, won't cooperate	•				
shows feelings and emotions				+ \\\\\\\\\\\\\\\0	
affectionate, likeable, fun to be with					•
looks up to others, appreciative, trustful			+ \\\\\\\\\\\\\\\	\\\\\\\\\\\\\\\\\\0	
gentle, willing to accept responsibility				+ \\\\\\\\\\\\\\\0	
obedient, works submissively	0 \\\\\\\\\\\\\\\	\\\\\\\\\\\\\\\\\\+			
self-punishing, works too hard	+ \\\\\\\\\\\\\\\0				
depressed, sad, resentful, rejecting	•				
alienated, quits, withdraws	•				
afraid to try, doubts own ability	•				
quietly happy just to be with others	+ \\\\\\\\\\\\\\\	\\\\\\\\\\\\\\\\\\	\\\\\\\\\\\\\\\\\\	\\\\\\\\\\\\\\\\\\	0
passive, introverted, says little	•				

APPENDIX G

Table 3. Weighted Directional Scores

Subject	U	D	P	N	F	B
Allied Professionals						
AP-X	15.5	54.5	55.0	3.0	29.0	20.0
AP-Y	24.5	29.5	53.5	6.5	28.5	28.5
AP-Z	3.0	54.5	33.5	7.5	37.0	14.5
Clinical Psychologist and Physician						
DR-X	50.5	18.0	68.5	7.5	37.0	46.5
DR-Y	19.0	31.0	45.5	0	43.5	14.0
Nurses						
RN-X	21.5	22.5	57.5	0	32.0	31.5
RN-Y	15.5	55.5	72.0	2.0	44.5	26.5
RN-Z	29.5	21.0	40.5	7.0	40.5	20.5
Social Workers						
SW-X	35.0	21.0	50.0	7.5	46.0	29.5
SW-Y	47.0	24.0	86.5	1.0	30.5	54.0

Explanatory Key

U = Up (dominance)
 D = Down (submission)
 P = Positive (friendly)
 N = Negative (negative)
 F = Forward (forward)
 B = Backward (backward)

APPENDIX H

Table 4. Final Dimensional Scores

Subject	U-D	P-N	F-B
Allied Professionals			
AP-X	-6.75	9.00	1.56
AP-Y	-0.87	8.13	0
AP-Z	-8.91	4.50	3.89
Clinical Psychologist and Physician			
DR-X	5.62	10.55	-1.64
DR-Y	-2.08	7.87	5.10
Nurses			
RN-X	-0.17	9.95	0.09
RN-Y	-6.92	12.11	3.11
RN-Z	1.47	5.80	3.46
Social Workers			
SW-X	2.42	7.35	2.85
SW-Y	3.98	14.79	-4.07

Explanatory Key

U-D = Up-Down (dominance-submission)

P-N = Positive-Negative (friendly-unfriendly)

F-B = Forward-Backward (task-oriented versus expressive)

APPENDIX I

EPPS Profiles for Five Female Subjects
Ranked from Highest to Lowest Preference

HN-1 (one of two subjects expressing high nurturance)

Irrelevant scale 5	1.0
Nurturance	2.0
Irrelevant scale 6	3.5
Dominance	3.5
Achievement	5.5
Irrelevant scale 4	5.5
Irrelevant scale 2	7.0
Abasement	8.0
Affiliation	9.5
Irrelevant scale 3	9.5
Autonomy	11.5
Irrelevant scale 8	11.5
Deference	13.0
Irrelevant scale 7	14.0
Irrelevant scale 1	15.0

HN-2 (one of two subjects expressing high nurturance)

Affiliation	1.0
Abasement	2.5
Irrelevant scale 2	2.5
Nurturance	4.0
Achievement	5.5
Dominance	5.5
Irrelevant scale 5	7.5
Irrelevant scale 6	7.5
Irrelevant scale 4	9.5
Irrelevant scale 7	9.5
Irrelevant scale 3	11.0
Deference	12.0
Irrelevant scale 8	13.0
Autonomy	14.0
Irrelevant scale 1	15.0

LN-1 (one of three subjects expressing less nurturance)

Irrelevant scale 5	1.0
Autonomy	2.0
Irrelevant scale 2	3.0
Affiliation	4.5
Irrelevant scale 8	4.5
Irrelevant scale 6	6.0
Nurturance	7.0
Irrelevant scale 3	8.0
Achievement	9.5
Dominance	9.5
Irrelevant scale 4	11.0
Irrelevant scale 1	12.5
Irrelevant scale 7	12.5
Deference	14.0
Abasement	15.0

LN-2 (one of three subjects expressing less nurturance)

Irrelevant scale 5	1.0
Abasement	2.5
Irrelevant scale 8	2.5
Irrelevant scale 2	4.0
Autonomy	5.0
Affiliation	6.5
Deference	6.5
Nurturance	8.0
Dominance	9.5
Irrelevant scale 1	9.5
Irrelevant scale 6	11.0
Achievement	13.0
Irrelevant scale 3	13.0
Irrelevant scale 4	13.0
Irrelevant scale 7	15.0

LN-3 (one of three subjects expressing less nurturance)

Affiliation	1.0
Irrelevant scale 8	2.0
Irrelevant scale 2	3.5
Irrelevant scale 5	3.5
Irrelevant scale 3	5.0
Nurturance	6.0
Deference	8.0
Dominance	8.0
Irrelevant scale 6	8.0
Irrelevant scale 1	10.0
Achievement	11.0
Autonomy	12.5
Irrelevant scale 4	12.5
Abasement	14.0
Irrelevant scale 7	15.0

Identities of irrelevant scales are not available to the reader.

VITA

Margaret L. MacVean was born in Muncie, Indiana on March 8, 1954. She attended public schools in the Muncie area and in Macomb, Illinois. In May 1978 she received a Bachelor of Science degree in Home Economics--with the area of concentration in nutrition--from Western Illinois University in Macomb. She served as a dietetic intern at University of Iowa Hospitals and Clinics in Iowa City from August 1978 to May 1979. Registered dietitian status was obtained that same year, and she continues to hold this credential.

The author was employed as a clinical dietitian at Memorial Medical Center, Springfield, Illinois from September 1979 to June 1982. She then assumed the position of clinical dietitian/nutritionist at Graham Hospital Association in Canton, Illinois and continued in that role until September 1986 when she entered graduate school at University of Tennessee, Knoxville.

Margaret MacVean focused on preparation as a clinical nurse specialist in diabetes care during her course of graduate study. A notable honor was being a recipient of the Hilton A. Smith Graduate Fellowship for the 1988-89 academic year. She is a member of Sigma Theta Tau International and the National Student Nurses' Association.