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Sociology, general
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THE RELATION BETWEEN COMMUNICATION AND SOCIAL INTEGRATION IN THE COMMUNITY HOSPITAL

by
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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in the
University of Michigan
1960

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ACKNOWLEDGEMENTS

The data for this dissertation were gathered in connection with a project conducted in the Organizational Behavior and Change Program of the Survey Research Center, University of Michigan. Program direction was given by Floyd C. Mann, Ph.D., and the study was directed by Basil S. Georgopoulos, Ph.D. The project was supported by Research Grant W-71 from the National Institutes of Health, Division of Hospital and Medical Facilities, United States Public Health Service. From January, 1957 through August, 1959, I was employed as an assistant study director on the project, which provided an opportunity for participation in the study, access to data, financial support, and an experience with the research enterprise for which I am most appreciative.

Before going to Europe in September, 1957, Amos H. Hawley was an extremely helpful dissertation committee chairman. The chairmanship was then taken by Werner S. Landecker whose insight, humor, and analysis have been valuable sources of assistance and encouragement. Other members of the committee have given useful comments. With his sense of organization and decision, Basil Georgopoulos helped me settle on a specific set of data from the sizeable array available.

Typing assistance was given by Harriet Rose, Pat Evans, Sharon Pope, and Terri Union. Frances Schnibben has facilitated the preparation of the manuscript. Special thanks are due Erie Cocolas who typed the final copies with speed and reliability.

Members of the study staff and other friends in Ann Arbor and colleagues and friends in Chapel Hill have given both practical and psychic support.

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CHAPTER I

SOCIAL INTEGRATION IN THE COMMUNITY HOSPITAL

As a consequence of a rising standard of living, new medical technology, development of public and private insurance plans, and a changing concept of "illness," the community general hospital has developed dramatically in the last twenty years. A community hospital in a town of 30,000 population, not affiliated with a medical school and having no full-time medical personnel in its employ, may yet have an average daily census of 250 patients, a payroll of 500 persons, and an annual budget of from one to two million dollars. Apart from the growing economic significance of the hospital as an employer and the site of substantial investments in equipment, plant, and materiel, the hospital has growing significance as a social institution--a symbol and instrument of the community's concern with the health and care of its members.

Organizational Features of the Community General Hospital

Like other large organizations such as factories, hotels, department stores, army bases, and universities, the community general hospital is established for a purpose--to provide certain services or goods. In order to provide these services, or to further the organization's objectives, the varied activities required are distributed in a fixed way. Persons with different training and skills are brought together and assigned positions with specialized and differentiated functions and varying degrees of authority and responsibility. The roles which people occupy in the organization are arranged in

hierarchical form with those at each level of the organization being under the control and supervision of the level next above it.

Like other organizations, the hospital must recruit and maintain a work force, compete with other employers for the quality of personnel needed to staff the organization, develop routines by which to coordinate the differentiated work activities of its members, train new members of the organization in its standards and routines, provide means of solving unanticipated or non-routine problems, establish some balance between input and outgo (whether in money, time, or energy) to permit continued--if not expanding--operation.

While similar in many ways to other organizations, the hospital has certain unique features. It is different from stores and factories (though similar to universities) in that its effectiveness in accomplishing its purpose is difficult to assess. The quality of patient care cannot be measured so easily as the number of cars manufactured, the number of housewares sold, the value of capital improvements, or the magnitude of profits. The number of patients who get better is not necessarily an indicator of good patient care; nor is the number of patients who die necessarily an indicator of poor patient care.

As a "consumer" of the hospital's services, the patient generally is not in a position to evaluate the quality of service he is getting. While he can judge whether the coffee is cold, whether the nurses are brusque, and whether the bill is high, the patient cannot ordinarily judge the professional competence of the care he receives.

Although hospitals usually have a heavy investment in expensive equipment, the hospital's operation is not highly mechanized. The

routinization in hospital activities is not monitored by machines (as it would be on an assembly line) but by the members' acceptance of the routines.

Staff Organization in the Community Hospital

Another way in which the hospital differs from most organizations is that the skill group around whose activities the hospital is organized--the doctors--is not clearly part of the organization. The doctor in the community general hospital is not an employee of and has few obligations to the hospital. As a member of the medical staff, the physician agrees to attend regular meetings of the medical staff (four to ten a year) unless excused, to complete his medical records within a specified time period (from fifteen to sixty days) after the discharge of patients, and (in hospitals where major and minor privileges are specified) not to practice in medical or surgical areas outside his assessed competence. Through the ultimate authority of its board of trustees, the hospital has formal control over a physician by its ability to discharge him from the staff. This control is seldom used, however, and then usually in cases of flagrant malpractice. By far the most important influence on medical practice in the hospital is exercised (if at all) by the medical staff itself.

The medical staff elects a chief and an executive committee as well as the members and/or chairmen of important standing committees such as the tissue committee, the medical audit committee, and the medical records committee. In some hospitals, the chief of staff and the standing committees command substantial authority.

As to medical specialties, their number depends largely on whether the community has a large enough population to support many

specialists. They would include at least internal medicine, surgery, obstetrics, gynecology, pediatrics, radiology, and pathology.

Line Organization in the Community Hospital

At the top of the line organization of the community hospital is the hospital administrator, an appointee of the hospital's board of trustees. The immediate subordinates of the administrator are department heads who supervise administrative departments such as dietetics, laundry, personnel, and accounting. When the administrator has an assistant, the assistant often is responsible for the "service" departments (e.g., maintenance, housekeeping, central supply), while the administrator oversees the finance and patient care departments (e.g., accounting, admissions, nursing, pharmacy). There is a substantial difference among departments in the number and skill of their personnel and in the administrative responsibility of their heads. The largest department is the nursing department, which in a typical community hospital may employ from 100 to over 300 full-time personnel. It may employ, for example, 20 supervisory nurses, 50 staff nurses, 35 practical nurses, and 60 nurses' aides. This contrasts with small departments such as pharmacy, physical therapy, or records which may employ from two to ten employees.

Social Integration in the Community Hospital

The extensive and elaborate division of labor in the hospital is oriented toward the organization's primary objective--the provision of good patient care. The "success" of the community hospital can be measured in terms of the degree to which the differentiated and specialized activities of its many members all contribute to that objective.

Given the complex division of labor in a hospital, the relatively small degree of automation, the critical need for coordination of effort, the hospital's reliance on the voluntary conformity of its members, and the severe consequences of failure to operate as a unified system, the hospital is a particularly appropriate site in which to study the phenomenon of social integration.

A more formal definition of the concept will be offered later in this chapter. At this point it is sufficient to say that "integration" signifies the unity or integrity of a system of differentiated parts. The integration of the social system is the extent to which it operates in a unified fashion, the behavior of its members in their differentiated roles being mutually consistent, complementary, and directed toward a common goal.

INTEGRATION

Social Solidarity and the Division of Labor

The question of how unity is maintained in a large social system has long been of interest to sociologists. One of the most insightful and heuristic discussions of the problem is that of Durkheim. In The Division of Labor in Society,[1] he distinguishes two types of social cohesion--that resulting from adherence to common beliefs and sentiments, or mechanical solidarity, and that resulting from mutual dependence through the division of labor, or organic solidarity. The first is characteristic of a simple society whose members are comparatively

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1. Emile Durkheim, The Division of Labor in Society, translated by George Simpson (Glencoe, Illinois: The Free Press, 1953).

undifferentiated in function. The second is characteristic of a complex society whose members perform specialized and differentiated functions and are thereby interdependent.

The paradox is that the complex division of labor which gives rise to the unity of interdependence also is associated with the development of diverse norms and divergent objectives by different subparts of the society or large social organization. This was noted by Durkheim in his discussion of "the anomic division of labor:" "Functional diversity induces a moral diversity that nothing can prevent; and it is inevitable that one should grow as the other does." At the same time, Durkheim asserts that the division of labor is the principal bond unifying the members of complex societies. A division of labor cannot be generated until there are enough people in contact with each other that they can develop relatively sustained patterns of interaction. Durkheim calls the interchange of services and symbols occasioned by contact between people "dynamic density" and declares that the division of labor in a society is in direct ratio to it.

Integration among members of a complex division of labor occurs, according to Durkheim, because members have a keen awareness of their mutual dependence and respond to the need for adjustment of their activities, thus developing a regular system of interaction.

> Since a body of rules is the definite form which spontaneously established relations between social functions take in the course of time, we can say, a priori, that the state of anomy is impossible wherever solidary organs are sufficiently in contact or sufficiently prolonged. In effect, being contiguous, they are quickly warned, in each circumstance, of the need which they have of one another, and, consequently, they have a lively and continuous sentiment of their mutual dependence. For the same reason that exchanges take place among them easily, they take place frequently; being regular, they

> regularize themselves accordingly, and in time the work of consolidation is achieved. Finally, because the smallest reaction can be felt from one part to another, the rules which are thus formulated carry this imprint; that is to say, they foresee and fix, in detail, the conditions of equilibrium. But, on the contrary, if some opaque environment is interposed, then only stimuli of a certain intensity can be communicated from one organ to another. Relations, being rare, are not repeated enough to be determined; each time there ensues new groping. The lines of passage taken by the streams of movement cannot deepen because the streams themselves are too intermittent.[2]

Durkheim does not assume that organic solidarity automatically occurs in complex organization. Organic solidarity requires that activities be coordinated, that functionaries perform their tasks according to the needs of the system, and that voluntary accomodation of behavior occurs among interdependent workers. "Abnormal forms" of the division of labor occur when there is insufficient activity in each part of the system to sustain a regular flow of interdependent actions, when there is insufficient interaction to create bonds between interdependent workers, and when members' participation in the division of labor is involuntary.

> [In the structure of societies where organic solidarity dominates, social elements] are. . .coordinated and subordinated one to another around the same central organ which exercises a moderating action over the rest of the organism.[3]
>
> The division of labor presumes that the worker, far from being hemmed in by his task, does not lose sight of his collaborators, that he acts upon them, and reacts to them.[4]

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2. Ibid., p. 368.

3. Ibid., p. 181.

4. Ibid., p. 373.

> For, ultimately, if each functionary has a well determined task, if he performs it well, he will necessarily need help from neighboring functionaries, and will not feel solidary without it. . . In general fashion, solidarity depends very greatly upon the functional activity of specialized parts. . . Where functions languish, they are not well specialized, they are badly coordinated, and incompletely feel their mutual dependence.[5]

> What gives unity to organized societies, however, as to all organisms, is the spontaneous consensus of parts.[6]

Durkheim makes the following assumptions about the relation between the division of labor and solidarity or social integration:

1. Similar or like beliefs and sentiments contribute to solidarity.

2. Interdependence arising from the division of labor contributes to solidarity.

3. Specialization of function contributes to precision and productivity of the separate parts of a differentiated social system.

4. However the division of labor also contributes to the development of dissimilar or unlike beliefs and sentiments.

5. On the other hand, the division of labor leads to a system of rights and duties regulating the exchange of services or the articulation of functions which contributes to solidarity.

6. To permit the development of solidarity rather than fragmentation, the individual members of a differentiated system must have an awareness and appreciation of those on whom they are most dependent and must feel that their activities are serving a worthwhile end beyond themselves.

7. Maladjustments in both the efficiency (coordination) and the morality (harmony) of the division of labor occur when parts are discontinuous or isolated from each other.

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5. Ibid., p. 390.

6. Ibid., p. 360.

8. Conversely, efficiency and morality are facilitated when members of the system are in regular and frequent contact with one another.

Durkheim observes that mechanical solidarity (integration through common experiences, beliefs, and sentiments) diminishes as organic solidarity (integration through functional interdependence) develops. However, there must be some common understandings among members if the division of labor is to operate smoothly. The resolution of the conflicting trends and the means by which common sentiments are developed even where social functions are highly differentiated is through regular interaction under circumstances which promote consensus. Thus, Durkheim comes full circle, saying (1) that dynamic density is a necessary precondition for the division of labor, (2) that the division of labor leads to organic solidarity, and (3) that it leads to solidarity only when there is regular and frequent interaction (dynamic density).

That the division of labor and frequent interaction should be mutually facilitative is both logical and consistent with empirical observation, but there is in Durkheim's writing some confusion as to what factors facilitate, are associated with, are consequences of, and "are" organic solidarity. There is no clear conceptual distinction between the state of the system when it is integrated and social processes leading to or from integration. Also, while declaring that mechanical and organic solidarity are antithetical, Durkheim's discussion of collective sentiments in simple and in complex societies fails to give convincing support to his contention.

A Durkheimian Model of Integration

When we look at a social system in the real world, generally we see evidence of both mechanical and organic solidarity. We also see

evidence of conflict or disruption of the "perfectly integrated" state. Indeed, perfect integration is a concept with no empirical referent. It is usually more satisfactory to view the social system as a body in moving equilibrium with component parts changing, tensions arising and being resolved, alterations and accomodations being made within the boundaries of the system. So long as the social system continues to exist, perform its social functions, and operate without excessive expenditure of resources or strain on its members, we can consider it integrated or "tending toward integration." When our interest is in comparing social systems with regard to their varying degrees of integration, however, it is helpful to specify what the perfectly integrated system would look like so that there will be a standard to which the systems we are concerned with can be compared. The Durkheimian model of perfect solidarity or social integration would have the following characteristics:

1. A high degree of functional differentiation,
2. A high level of task performance,
3. A high degree of coordination among specialized tasks,
4. A high degree of consensus,
5. A strong bond between the individual and those with whom he is directly interdependent,
6. A high degree of harmony or compatibility among interdependent workers,
7. Interaction binding together the parts of the social system.

The final component of the model, interaction, may be seen as a necessary condition of the first three components and perhaps a necessary and sufficient condition of the second set of three. That is, Durkheim assumes

that differentiation, excellent performance, and coordination cannot be maintained without interaction. He further assumes that consensus, sympathetic bonds, and harmony among interdependent system members in a complex division of labor can be obtained only as a consequence of regular and frequent interaction among them. We will have occasion to refer to this Durkheimian model later when examining the relationships of varying aspects of communication to the integration of a social system.

Landecker's "Types of Integration"

Durkheim's concept of solidarity contains a number of elements: differentiation, performance, coordination, consensus, identification or affective bonds between individual and group, harmony or lack of conflict among members of the social system. A more systematic and analytical treatment is given to the concept by Werner S. Landecker in his "Types of Integration and Their Measurement."[7] He suggests that it may be less fruitful to ask: What is integration? than to try to specify its subtypes and consider how they might be measured for the purpose of answering questions about the conditions associated with varying degrees of integration and the organizational consequences of varying degrees of integration.

Landecker discusses four types of integration: cultural, normative, functional, and communicative. Cultural integration refers to the degree of consistency among cultural standards. Normative integration

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7. Werner S. Landecker, "Types of Integration and Their Measurement" American Journal of Sociology, Vol. 56, 1950-51, pp. 332-340.

refers to the extent to which conduct is in accord with norms. Functional integration refers to the degree of mutual interdependence among the units in a differentiated system (division of labor). Communicative integration refers to the extent to which communicative contacts permeate the group.

Landecker's concept of communicative integration is defined and examined beyond the level suggested by Durkheim's assertions that regular and frequent interaction among interdependent parts of a social system is necessary to the system's solidarity. Discussing the implications of communicative bonds among members of a system, Landecker observes that "the degree to which interpersonal relations in a group, on the average, are antagonistic would be indicative of the degree to which its members fail to communicate with one another" and "sociometric techniques of measuring the volume of attraction and rejection in a group as a whole would seem to be a device by which the adequacy of communication in the group can be indirectly measured."[8]

A definition of integration which is consistent with Durkheim's usage of the term "solidarity" and which is very close in formulation to Landecker's analysis is one given by William L. Kolb in an unpublished manuscript titled "Social Integration:"

> Integration can be defined as the process of making whole or entire. Social integration refers this process or its resultant state to the social system, and is in turn constituted by the dimensions of cultural integration, the consistency of normative patterns with one another; normative integration, the articulation of normative patterns with motivational processes so that conformity is achieved;

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8. Ibid., p. 337.

> consensual and communicative integration, the sharing and transmission of normative patterns among the members of a social system; and functional integration, the interlocking of claims, expectations, and overt acts.

Another aspect of integration pointed up by Landecker is the variation in integration at different structural levels within a complex organization composed of smaller functional units. He suggests that:

> It will be terminologically convenient to call the larger group, when seen as a whole, the "compound-group," and to call the smaller group within the larger group the "sub-group." This distinction is relative. . . The integration of a sub-group into a larger group will be called "extrinsic sub-group integration." . . .With reference to the integration among the units of which a sub-group is composed, the term "intrinsic integration" is offered.[9]

The nursing staff, the medical staff, and the administrative staff are subgroups within the compound group of the hospital. Other structural units are represented by the subgroups (e.g., supervisors, staff nurses, practical nurses, aides) within the nursing staff so that the latter can be treated as a compound group in relation to its own subdivisions. It is sometimes assumed that the intrinsic integration of a subgroup supports the integration of the compound group. That this is not necessarily the case can be seen where a cohesive subgroup substantially restricts production, creating tension between it and other subgroups and coordination problems for the compound group. Although intrinsic subgroup integration does not necessarily contribute to compound group integration, it is doubtful that the latter could be achieved without it.

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9. Werner S. Landecker, "Integration and Group Structure: An Area for Research," Social Forces, Vol. 30, No. 4 (May, 1952), 394 ff.

COMMUNICATION

Accepting Durkheim's notion of integration as developed by Landecker, we now may turn to an examination of factors contributing to it. Integration facilitators are events or situations which lead to shared norms, shared work, shared concern, and shared information. Examples of these in a large organization would be training or orientation programs leading to the development of common standards of behavior; the direct exchange of materials or personal services; the performance of tasks requiring joint activity of system members; socioemotional support given by the group to its members; and meetings, discussions, conversations, and directives. Durkheim, while indicating the importance of interaction or communication to the development of solidarity in the complex society, does not delineate the nature or modes of communication which facilitate integration. For a more adequate discussion of the significant aspects of communication--those which bind together or push apart members of a social system--we must refer to more recent work.

Communication as a medium of interaction and a means for transmitting information necessary to the solidarity of a group has received considerable attention both from those concerned with organizational administration and from social scientists interested in the role of communication as a medium of influence. In describing the role of management, for example, Peter Drucker[10] lists "motivating and communicating" as one of the fundamental tasks of management. In discussing executive

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10. Peter Drucker, The Practice of Management (New York: Harper and Brothers, 1954).

functions, Moore[11] asserts the importance of "establishing and maintaining lines of communication."

Formal Channels of Communication

The organizational function of communication is to link specialized or differentiated positions in a division of labor so that their separate activities can be brought into adjustment. For the unity of the organization, enough relevant information must be transmitted to reduce or prevent incompatibility, irrationality, or excessive diversity in the behavior and attitudes of its interdependent members. To this end, formal channels of communication are ordinarily established to bring into contact those positions or levels of authority which have a high degree of mutual dependence. In general, the formal communication pattern is congruent with the formal organization as indicated on an organization chart. Channels of communication link superiors and subordinates, and link the staff with the line organization. The former set of channels, i.e., the vertical channels between superiors and subordinates, is especially important to organizational coordination and integration. Burleigh B. Gardner observes:

> Of extreme importance are the processes of communication vertically in the structure. To a large extent management is the center of control and direction and it is constantly communicating downward through the structure. At the same time there is a constant flow of information upward to it. Now the line of authority provides one of the important channels for this flow; down it, step by step are transmitted orders, often of a very general nature, which are assimilated at each level and transmitted into more specific orders to be

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11. Wilbert E. Moore, Industrial Relations and the Social Order (New York: The Macmillan Company, 1951).

> applied to each organization. Thus what starts out at the top as a general directive ends up as a very specific order for individuals at the bottom. In the same way information, starting as a mass of specific details at the bottom is condensed and organized at each level until it reaches the top as a simple set of figures or a report on the desk of the top executive.[12]

It is obvious that not all the communication which occurs in a large organization is found in the formal channels. Friendships and antagonisms, both between role occupants linked by formal channels and between those not linked by the formal channels of communication, facilitate or inhibit the flow of information between members of the organization. That communication network which is incongruent with or deviates from the formally prescribed network is the "informal communication system." It may be said that, in general, the principal function of the formal communication system is to further the accomplishment of the objectives for which the organization is established. The principal function of the informal system is to enhance or express the socioemotional state of the organization's members. The functions of the formal and informal systems are not altogether distinct--the formal system often serves socioemotional functions and the informal system often serves task functions--nevertheless, a degree of specialization exists between the two. The objectives served by the formal and the informal systems may be complementary and mutually supportive or they may be at odds with one another.

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12. Burleigh B. Gardner, "The Factory as a Social System" in William Foote Whyte (ed.), Industry and Society (New York: McGraw-Hill Co., Inc., 1946) p. 13.

It was noted earlier that Durkheim fails to push his analysis of communication to the point of specifying particular aspects of it which can be treated as variables and examined in relation to his model of integration. The distinction between formal and informal systems of communication is a refinement which may be relevant to an understanding of this relation. Characteristic of a bureaucracy, the hospital has a formal structure of communication with prescribed channels linking interdependent tasks and levels of authority. These formal channels are intended for the exchange of information which will lead to the identification and resolution of some organizational problems and prevent the occurrence of other problems. To what kinds of problems is communication relevant?

Communication and Integration

The laboratory experiments and theoretical formulations of Robert Freed Bales[13] have particularly emphasized that a group's survival depends on its ability to solve production or task problems (associated with doing a job) and the resultant group-maintenance or social-emotional problems (associated with limitation or reduction of tension within the group). That is, the group must develop means for utilizing the productive advantages of differentiation while limiting the centrifugal force it may create.

Bales conceives of a group as a system of differentiated parts in moving equilibrium. Communicative acts constitute attempts by group

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13. Robert Freed Bales, Interaction Process Analysis (Cambridge, Mass.: Addison-Wesley Pres, Inc., 1950).

members to solve instrumental or social-emotional problems experienced by themselves or the group. An act of communication is seen either as an expression of disequilibrium or as an attempt to reestablish equilibrium. Presumably, if there were no disruption of equilibrium, there would be no communication. However, the group's functioning as a problem-solving group implies that there always will be disruptive factors to which it must respond. The test of the group's integration is its ability to cope with the disruptive forces: to solve task and social-emotional problems as they arise and thus maintain itself as a coherent, producing entity. In Bales' view, questions are indicative of problems or disruptions; "answers" are indicative of attempts to solve problems or to minimize disruptions. Statements of annoyance or criticism are indicative of problems; statements of praise or support are indicative of attempts to resolve problems. Thus, it is integrative for there to be more answers than questions, more statements of support than of criticism. If there were no questions or other signs of disequilibrium, however, it would suggest that group members are oblivious to the problems which almost necessarily arise and must be solved in an effectively functioning social system.

Studying communication processes in small problem-solving groups working under controlled laboratory conditions, Bales found that groups generally go through certain stages of interaction before completing a task, each stage characterized by the predominance of particular types of communication. The stages he called "orientation," "evaluation," and "control." "Orientation" refers to the process of arriving at a shared definition of what the problem is and includes such specific communicative acts as giving and requesting information, explanation,

or confirmation. "Evaluation" refers to the process of deciding what attitudes toward the problem are appropriate and includes the specific acts of giving and requesting opinion, evaluation, and analysis. "Control" refers to the process of influencing group decision about ways to resolve the problem and includes the communicative acts of giving and requesting suggestion or direction.

Bales found that at the same time that it handled communication associated with the identification, exploration, and resolution of a work problem, the group also had to maintain itself as an integrated unit by preventing or mending the cleavages between members which resulted as the group accepted, modified, or rejected the attempts of its constituents to cope with their common problem. The communicative acts which affirmed or contributed to group integration included indications of satisfaction, praise, and the giving of help. Communicative acts which denied or detracted from group integration included indications of dissatisfaction, criticism, and the withholding of help. As might be expected, the groups which were most successful in accomplishing their task were those in which there were more "answers" than "questions" in the instrumental-task area and in which there were more positive than negative communicative acts in the integrative area. In these groups leadership tended to be developed with respect both to production activities and to activities concerned with providing socioemotional support to group members. On the basis of Bales' findings, if we conceive of a work group or a superior-subordinate relationship in an organization as a problem-solving system, we can hypothesize that the participants will have to solve problems related both to the performance

of their tasks and to the maintenance of the relationship. We would expect further that the particular types of communication exchanged within the work group or the superior-subordinate relationship will have implications for the integration of the group or relationship.

Communication, Consensus, and Conformity

In their study of communication in informal groups in housing developments, Festinger, Schachter, and Back[14] found that aspects of communication were related to interpersonal attraction and friendship and also to uniformity of attitudes and behavior. They concluded that where people have friendship relationships with one another, active channels of communication tend to be established between them, and a substantial volume of diverse information is likely to be exchanged in these channels. As a consequence, those who communicate frequently tend to develop shared opinions and attitudes. The more cohesive a group, i.e., the more friendship ties and the greater the interpersonal attraction among group members, the more communication among them and also the greater the influence the group has on its members for producing uniformity of standards for the group and conformity to those standards. In the absence of physical barriers such as distance, social barriers such as status, or psychological barriers such as antagonism, people who share some socially relevant characteristic--e.g., membership in a profession, residence in a neighborhood, or employment in an organization--tend to develop channels for the flow of information and ideas

14. Leon Festinger, Stanley Schachter, and Kurt Back, Social Pressures in Informal Groups (New York: Harper and Brothers, 1950).

among themselves. In turn, through the exchange of information and ideas, group members tend to develop similar frames of reference and orientations which affect their interaction with others.

Additional support for the above position is given by Newcomb. He suggests that "communication among humans performs the essential function of enabling two or more individuals to maintain simultaneous orientation toward one another as communicators and toward objects of communication."[15] For example, a nurse and her supervisor, talking about ways to improve patient care, constitute a communicative system in which the orientation of the supervisor toward the nurse and toward patient care, and the orientation of the nurse toward the supervisor and toward patient care, are interdependent. According to Newcomb's theory, the greater the interpersonal attraction between the nurse and the supervisor in this system, the more they will both strive toward symmetry in their attitudes about patient care. Conversely, the less the attraction between them, the more limited this symmetry is likely to be; symmetry will tend to be limited to those objects in the situation about which the nurse and the supervisor are forced to have consensus due to the conditions of their association. In turn, lack of symmetry in their orientations toward different objects, combined with lack of interpersonal attraction, will result in lack of communication or insufficient communication about these objects. Lack of communication will tend to perpetuate the divergences in their orientations toward the objects. Under these conditions, consensus becomes difficult if not

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15. Theodore M. Newcomb, "An Approach to the Study of Communicative Acts," in P. Hare, E. F. Borgatta, and R. F. Bales, Small Groups (New York: A. Knopf, 1955).

impossible. Since a certain amount of consensus is essential to the continuity of the system, a prevailing situation of divergent orientations threatens the organization.

In organizational situations where there is an extensive division of labor, extensive specialization, and extensive status and skill differentiation, the exchange of information is an important means of adjusting, regulating, and coordinating many interdependent tasks and activities among workers. The less routinized and mechanized the organization, the less automatic the coordination and adjustment of activities is. Under these conditions, one of the most important problems of administration is to establish and keep open whatever communication channels are needed for making relevant information available to those who must make decisions.

Constructive and Defensive Barriers to Communication

Problems of communication in a large organization have been studied by Jacques[16] in an industrial plant in Britain. He concludes that effective communication in a hierarchy requires that superiors be free of anxiety and that they exert a constant pull to insure that subordinates bring crucial problems to their attention. Successful fact-finding, a precondition to problem-solving, requires that the relationship between superior and subordinates permit free talk on all matters, whether they pertain to technical problems, questions of policy, interpersonal relations, or the attitudes and behavior of the superior himself. If the superior can establish in his subordinates the expectation that he

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16. Elliott Jacques, The Changing Culture of a Factory (New York: The Dryden Press, 1952).

will be constructive and helpful, relevant information will be transmitted and problems will be identified and solved; if not, information will probably be concentrated in informal channels, resulting in bypassing those in positions of formal authority and responsibility. This is not to say, however, that unlimited communication between superior and subordinates is organizationally desirable. Efficient communication is selective, facilitating the flow of organizationally relevant information and inhibiting the flow of irrelevant or less important information.

> The creation of constructive barriers against too free communication will be referred to as adaptive segregation. By contrast, the erecting of barriers against communication, as a defense against stresses between groups, so that the transmission of important matters is obstructed, will be referred to as maladaptive segmentation.[17]

In practice, communication barriers are seldom if ever exclusively one type or the other, but a combination of both. It is clear that if all information were transmitted to all members of the organization, so much time would be spent in talking there would be little time for other work activities. Adaptive segregation controls excessive communication by preventing talk about topics which are irrelevant or which are outside the communicators' area of influence and decision. The objective of adaptive segregation is efficient problem-solving. Segmentation, on the other hand, is seen as a highly motivated but often unconscious attempt to avoid or reduce stress. It is maladaptive because it prevents information necessary to problem-solving from reaching

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17. Ibid., p. 302.

those in decision-making positions and may seriously impair the unity of the organization.

THE RELATION BETWEEN COMMUNICATION AND INTEGRATION

The Problem of This Dissertation

This dissertation will be concerned with the relation between types of organizational integration and certain aspects of communication. We shall focus on the compound group within the hospital which is most continually and directly concerned with patient care: the nursing staff. Since the hospital is a bureaucracy with formal channels of communication intended to be used for the prevention or solution of organizational problems, we shall give special attention to the communication flowing in formal channels--between superiors and subordinates, or between one skill group and another--to assess how it may facilitate or inhibit the intrinsic integration of the nursing staff. Since the hospital's primary purpose is the production of good patient care, we will select measures of integration relevant to this task.

Our general hypothesis is that those aspects of communication which indicate or facilitate frequent interaction between incumbents of interdependent roles will be positively associated with the organization's integration. The communication variables with which we shall be concerned refer to specific communicative acts or to characteristics of communication patterns among nursing personnel. Integration refers to the unity of the nursing staff as a whole and to the unity of subgroups within it. Communicative integration refers to the extent to which nursing staff members are linked to one another by exchanges of

meanings and the extent to which social isolation fails to occur. The empirical measures used in the study will be discussed in Chapter II.

Assumptions

The specific hypotheses which guide this investigation rest on a set of assumptions about the functions of line organization, particularly the functions of supervisory personnel, in a bureaucratic system, and about the communication process.

1. To fulfill his organizational function, the person in a supervisory role must facilitate the identification, evaluation, and resolution of both task and group-maintenance problems.

2. More specifically, the person in a supervisory role should (a) set standards of performance and promote conformity to those standards, (b) coordinate the differentiated activities for which he is responsible, (c) promote cohesion and reduce tensions in the work group for which he is responsible, and (d) exchange information with superiors and subordinates relevant to implementing his organizational function.

3. Sufficient relevant communication should occur in the vertical channels so that appropriate control and direction can flow downward and information relevant to decisions can flow upward. (Gardner)

4. The greater the attraction between superior and subordinates, the more likely that they will (a) continue to communicate and (b) strive toward symmetry in their attitude toward the objects of their communication. (Newcomb, Festinger et al)

5. Some communicative acts facilitate and others fail to facilitate the resolution of task and group-maintenance problems. (Bales)

6. If the superior is helpful and encourages subordinates to give him information, work-relevant information will be directed to him. If the superior is not helpful or does not encourage subordinates to give him information, work-relevant information will be diffused in informal channels. (Jacques)

Communication Variables

We expect that some aspects of communication which, as such, are not indicative of the integration of a social system, nonetheless will tend to be associated with integration variables. One of these aspects is the amount of communication. Up to a point, we assume that a large amount of communication promotes integration to a higher degree than a small amount. As Jacques observed, however, unlimited communication is not necessarily beneficial to the organization--there must be some filtering, some "adaptive segregation."

Another aspect of communication is its "direction"--whether it is vertical, linking people at different organizational levels, or horizontal, linking people at the same organizational level. We assume that links between incumbents of different roles contribute more to integration of a complex system than do links between incumbents of similar roles.

A third aspect is the concentration of communication in formal as against informal channels. In a bureaucracy where the formal organization is intended to promote production and resolve task problems, we assume that it is integrative for task communication to be concentrated in formal channels.

Finally, the quality of the communicative act is assumed to have implications for integration. Acts which facilitate the exchange of task-relevant information (e.g., requests for information or provision of information) and acts which affirm the value of the group or group member are considered to be integrative. Communicative acts which neither facilitate the exchange of information nor affirm the value of the group or group member are considered to be nonintegrative.

Types of Integration

Landecker's typology of integration--cultural, normative, functional, and communicative--was discussed on page 11. The present study concentrates on the last three of these types. Normative integration, or the degree to which behavior conforms to standards, will be indicated by judgments of the role performance of nursing staff members. Functional integration, or the degree to which group members are linked to one another by exchanges of services, will be indicated by an index of coordination of jobs within the nursing staff. Communicative integration, or the degree to which members of the group are linked by shared meanings, will be indicated by measures of consensus, lack of tension among nursing staff members, and commitment of nurses to their work group.

Organization of the Dissertation

Landecker's scheme of structural analysis refers to a complex organization composed of several compound groups, each with its constituent subgroups, and each being more or less integrated internally and with regard to the larger system of which it is part. Using his approach for examining integration at different structural levels, a study of the nursing department in general hospitals potentially could focus on intrinsic and extrinsic integration of at least four different skill levels: supervisory nurses, staff nurses, practical nurses, aides and orderlies; the intrinsic and extrinsic integration of different nursing divisions, shifts, work groups, or superior-subordinate relationships; and the intrinsic and extrinsic integration of the nursing department as a whole. The task of examining all these levels would be too

extensive for a single dissertation. On the other hand, limiting analysis to a single level--especially since we are concerned with the integration of a complex organization--is too narrow a definition of the problem. Accordingly, a selection of the organizational levels to be considered and the data to be used was made partly on theoretical, partly on practical, grounds. Other members of the study staff had examined both objective and attitudinal data concerning the quality of patient care given in the hospitals and concluded that the registered nurses, and perhaps the staff nurses especially, were crucial in determining the quality of care.[18] Thus, it seemed appropriate to concentrate attention on that group. Preliminary analysis of different measures of communication and integration suggested that some data were more promising than others, hence, some were selected for further analysis.

Chapters III, IV, and V are concerned with three different levels of integration: integration in the superior-subordinate relationship, integration of the nursing staff, and integration of the staff nurse group, respectively. Generally we relate one characteristic of a social relationship or system to another characteristic of the same social relationship or system, e.g., subordinates' perceptions of their superiors' quantity and quality of communication are related to subordinates' evaluations of their superiors' performance in the supervisory role, or to use another example, the amount of communication across levels in the nursing staff is related to the performance of the nursing staff.

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18. Data on the organization of the hospital as a whole are presented and analyzed in Basil S. Georgopoulos and Floyd C. Mann, The Community General Hospital (New York: The Macmillan Co., in press).

It is our hypothesis that the chief integrative factor in the relationship between different levels in a complex organization is located in the superior-subordinate relationship, for we assume that the quality of this relation can either facilitate or inhibit the flow of information relevant to the integration of the total organization. Were it not for the formal organization's requirement that each member of the organization be accountable for his work to a specific person and the expectation that an exchange of information occur between them, the possibility that certain groups or categories of personnel would be isolated from one another would be considerably magnified. The formal provisions for linking personnel at different levels can be aided or hindered by the kind of communication between supervisory personnel and their subordinates. This matter will be discussed in greater detail in Chapter III in the light of data pertaining to the following hypotheses:

1. The frequency with which superiors use facilitative communication will be positively related to normative integration of the superior-subordinate relationship; OR more specifically, the extent to which subordinates perceive their superiors' communication to be adequate, to provide or solicit information, or to provide socioemotional support will be positively related to the subordinates' judgment that the superiors are performing their role adequately.

2. The amount of communication with the superior will be positively related to the subordinates' judgment that the superiors are performing their role adequately.

3. The frequency with which superiors use facilitative communication will be positively related to the concentration of task-relevant communication in formal rather than in informal channels.

A second set of hypotheses concerns the relation between three aspects of communication: (a) amount of communication with the superior,

(b) concentration of task-relevant communication in formal channels, and (c) relative amount of communication across interdependent organizational levels, and indicators of normative integration, functional integration, and communicative integration.

4. The amount of communication with superiors will be positively related to adequacy of role performance among the nursing staff.

5. The amount of communication with superiors will be positively related to nursing staff coordination.

6. The amount of communication with superiors will be negatively related to tension between nursing classifications.

7. Concentration of task-relevant communication in formal channels will be positively related to adequacy of role performance among the nursing staff.

8. Concentration of task-relevant communication in formal channels will be positively related to nursing staff coordination.

9. Concentration of task-relevant communication in formal channels will be negatively related to tension between nursing classifications.

10. The relative amount of communication across organizational levels within the nursing staff will be positively related to adequacy of role performance among the nursing staff.

11. The relative amount of communication across organizational levels within the nursing staff will be positively related to nursing staff coordination.

12. The relative amount of communication across organizational levels within the nursing staff will be negatively related to tension between nursing classifications.

The hypotheses above will be discussed in Chapter IV.

In Chapters III and IV we will discuss data from three skill groups within the nursing department: aides and orderlies, practical nurses, and staff nurses. Of these, staff nurses have been shown to be most central and vital to the provison of good patient care. In Chapter V we will

examine data from the staff nurse group only, relating communication variables to two measures of communicative integration: consensus among staff nurses and commitment of staff nurses to their work group. The specific hypotheses follow:

13. The extent to which subordinates perceive their superiors' communication to be facilitative (giving task leadership or socioemotional support) will be positively related to consensus among nurses.

14. The frequency with which nurses talk with their superiors will be positively related to consensus among nurses.

15. Concentration of task-relevant communication in formal channels will be positively related to consensus among nurses.

16. The relative amount of communication of nurses with persons at other organizational levels will be positively related to consensus among nurses.

17. The extent to which subordinates perceive their superiors' communication to be facilitative will be positively related to nurses' commitment to their work group.

18. The frequency with which nurses talk with their superiors will be positively related to nurses' commitment to their work group.

19. Concentration of task-relevant communication in formal channels will be positively related to nurses' commitment to their work group.

20. The relative amount of communication of nurses with persons at other organizational levels will be positively related to nurses' commitment to their work group.

The fact that the communication variable is stated first in each of the hypotheses above is not intended to imply that integration is necessarily "caused by" or a consequence of communication patterns. As indicated in the discussion of theory, these hypotheses reflect the assumption that both kinds of variables are interrelated.

The figure below summarizes the relationships between the communication and integration variables with which we will be concerned.

INTEGRATION VARIABLES

COMMUNICATION VARIABLES	Normative Integration: Role Performance: Of Superiors (each level)	Normative Integration: Role Performance: Of Nursing Staff (summary measures)	Functional Integration: Coordination (summary measure)	Communicative Integration: Lack of Tension Between Groups (summary measure)	Communicative Integration: Consensus (staff nurses)	Communicative Integration: Commitment to Work Group (staff nurses)
Superiors' communication facilitative	1				13	17
Amount of communication with superiors	2	4	5	6	14	18
Concentration of task-relevant communication in formal channels		7	8	9	15	19
Relative amount of communication across organizational levels		10	11	12	16	20

Fig. 1.-Hypothesized relations between aspects of communication and integration.

The numbers refer to the hypotheses which were enumerated above. Hypothesis #3 is not shown in the figure above because it relates one communication variable (superiors' communication facilitative) to another aspect of communication (concentration of task-relevant communication in formal channels).

Preliminary to the discussion of the relation between communication and integration variables in Chapters III-V is Chapter II in which are described the sources of data and the measures used as indicators of these variables.

Chapter VI will summarize the dissertation and offer some suggestions as to further steps in the theoretical analysis and empirical study of communication in complex organizations.

CHAPTER II

SOURCES OF DATA AND OPERATIONALIZATION OF VARIABLES

The research site for this study is the nursing department of the community general hospital. Data are from nursing personnel in each of the ten hospitals included in a study conducted by the Organizational Behavior and Organizational Change program of the Survey Research Center at the University of Michigan.[1] The hospitals were of medium size (100 to 350 beds), located in Michigan cities of over 10,000 population, and were short-stay general hospitals. Each was accredited, was a voluntary, non-profit organization, and was administered by a man who is not an M.D.

Organization of the Nursing Staff

In Chapter I the formal organization of the community general hospital was outlined. Since this study is concerned with the relation between aspects of communication and integration within the nursing staff of the hospital, we will narrow our focus to the organization of the nursing department. Next to the administrator, the hospital employee with greatest formal responsibility for the conduct of hospital affairs affecting the patient is the director of nursing. He (in two of the hospitals) or she (in eight) is a registered nurse but is concerned

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1. For details, see page ii, above.

chiefly with administrative duties, e.g., allocation of nursing personnel to various services, training (if there is any), organization of the nursing department, coordination of nursing functions with those of other departments, maintenance of professional standards of nursing, liaison with the medical staff, and so on. Our data suggest that nursing supervisors and head nurses actually carry the weight of these administrative duties, but the greatest formal responsibility for them belongs to the nursing director.

In addition to administering the nursing department, the director of nursing is responsible for the supervision of nursing supervisors. This level includes registered nurses who are shift supervisors (e.g., house director for the night shift), medical service supervisors (e.g., operating room supervisor or supervisor for obstetrics), and supervisors for a hospital floor or wing.

Nursing supervisors, in turn, supervise head nurses. Head nurses are responsible for patient care and administrative arrangements for smaller units such as a wing (in smaller hospitals) or a ward. They are supposed to plan and allocate work to nonsupervisory registered nurses ("staff nurses"), practical nurses, aides, and orderlies. The head nurse and/or the nursing supervisor is supposed to accompany the physician as he makes rounds, to report to the attending physician on the condition of his patients, to check the completeness and accuracy of the written nursing reports on the patient. The head nurse is analogous to the "first line supervisor" in industry.

Although they are all responsible to and under the supervision of head nurses, the other skill groups in the nursing department are quite different from each other. The nonsupervisory R.N. (or staff

nurse) has had professional training similar to that of the head nurse and nursing supervisor. She often has no formal administrative or supervisory responsibilities--rather, she is supposed to spend full-time in patient care: administering medications, giving treatments, observing, listening to, and nursing patients. In some hospitals the introduction of "team nursing" has given staff nurses somewhat informal supervisory responsibility for a nursing team made up of herself (and perhaps a second staff nurse), a practical nurse, and one or two aides. This team of four or five members is responsible for a group of patients, and the work of the team is coordinated by the staff nurse.

The position of licensed practical nurse has emerged fairly recently, licensure having begun about fifteen years ago. The "new" practical nurse has had one year of training in a licensure program in a hospital. She is trained to give treatments and certain medications. Hospitals vary in the kind of work they permit L.P.N.'s to do, with some of them forbidding anyone but an R.N. to give medications. Often there is a bit of tension between R.N.'s and L.P.N.'s as to the practical nurse's proper jurisdiction, with the R. N. reluctant to accept the legitimacy of their giving medications and the L.P.N. asserting that their professional training has equipped them to do it.

Aides are at the bottom of the hierarchy of skill and influence. They perform the most menial jobs in the hospital: changing linens, carrying bedpans, and the like. Orderlies have a similar function, but their status is higher, for nurses depend on them to do heavy work such as pushing around equipment and lifting patients.

Some Background Characteristics of Skill Groups

A summary of certain demographic characteristics of the different levels within the nursing staff added to the brief job description given above may help round out the picture of each role in the nursing staff. We have combined nursing supervisors and head nurses into a category, supervisory nursing personnel, which we will abbreviate "SNP." Other registered nurses, or staff nurses, we will abbreviate "RNS." Although most practical nurses were licensed, a few hospitals had practical nurses who had worked long before the licensing program began and had not gone through the formal program, therefore we are combining all practical nurses and using the abbreviation "PNS" for the group. The number of orderlies is very small, so they have been combined with the aides in the category labelled "A&O."

Looking at the data for all ten hospitals combined, we find that SNP (supervisory nursing personnel) have worked in this hospital and in their present division longer than any other group. Sixty percent have worked in the hospital for five years or more, and 33 percent have worked in the present division for five years or more. Most of them (76 percent) have been doing their present job for one year or more. About half have had some college education, and the other half have completed high school. Most of the SNP (83 percent) have had three years of professional training, and a few (11 percent) have had more. Three-fourths of this group are between the ages of 30 and 50. Among nursing groups, they are most likely to be single (25 percent) and least likely to have children (52 percent).

Staff nurses are more likely than other nursing groups to have had no previous regular job (43 percent), and two out of five have been

on the present job less than a year. Forty-five percent of the staff nurses have worked in their present division (e.g., medicine, surgery, pediatrics) for less than a year. Their formal education is similar to that of SNP, 51 percent having completed high school and 47 percent having had some college. Eighty-seven percent have had three years of professional training and 11 percent have had more--again, almost identical with SNP. With respect to age, they are generally younger than SNP and PNS, but of similar age to A&O. Forty-four percent are age 30 or under, and another 46 percent are between 30 and 50. Of all groups in the nursing department, they are most likely to be married (74 percent). Two out of three staff nurses have children.

Of all nursing groups, practical nurses are most likely to have had the same or a similar job in another hospital (34 percent). Forty-six percent have worked in this hospital for five years or more. One out of three have had the present job for five years or more, and four out of five have worked in other divisions of the hospital at some time. In terms of education, 37 percent have had less than a high school education, 42 percent completed high school, and 21 percent have had some college. Three out of five have had one year of professional schooling. As a group, PNS are older than the others, 22 percent being 50 years or more. Only 14 percent were never married. Seven out of ten have children.

As one would expect of a generally unskilled group, aides and orderlies are most likely to have had a previous job which was unrelated to their present one (45 percent). More than a third have worked in the hospital for less than a year, and only 18 percent have worked there for five or more years. Within the hospital, they are shifted about as the

need for extra hands demands. Forty-two percent have been doing their present job for less than a year. A&O are the least educated group, 55 percent having had less than a high school education. In terms of age, they are most similar to staff nurses, 44 percent being 30 years or under and 11 percent being 50 years or over. With regard to marital status, A&O are most comparable to supervisory nursing personnel, both groups having about a quarter of their members single and a little over 60 percent married. The former are somewhat more likely than SNP to have children (62 percent as compared to 52 percent).

Formal Provision for Communication Among Nursing Personnel

By the nature of their tasks and responsibilities, the different levels in the nursing staff are highly interdependent. They are dependent on each other not only for the performance of interrelated tasks but also for information as to what tasks have been carried out or need to be done, what responsibilities one level can expect the other to assume, and information as to new problems and their possible solution. All this requires a flow of communication among members of different levels.

Team nursing, which brings together personnel from three levels--staff nurse, practical nurse, and aide--probably provides more opportunity for cross-level communication than other work arrangements. None of the hospitals in which we gathered data were using team nursing throughout the hospital, although supervisory nurses were in some cases experimenting with it. A more common work organization is for each individual or for each skill group to be given specific assignments by the head nurse.

There are many routines in the nursing job; at the same time, there are many fluctuations and variations in routine, and there are

frequent emergencies and unanticipated problems. Since the nursing department is not mechanized, there are no mechanically determined jobs, job sequences, or job pacing. The planning, allocation, and execution of jobs is handled by nursing personnel. Coordination of specialized or differentiated tasks is accomplished by means of the timing and placing of activities and by communication of relevant information to those whose work is affected. In their supervisory-administrative role, nursing supervisors and head nurses have frequent opportunity to talk with their subordinates--if, by "opportunity," we mean that they are working in close proximity and have frequent cause to confer. The time pressures created by a ubiquitous staff shortage often limit opportunities for communication.

Sometimes group meetings offer a chance for nursing personnel to talk about work and related problems, however there is great variation both in the frequency of group meetings and in the kind and amount of information exchanged at them. Forty-five percent of the A&O and 46 percent of the PNS reported that they never have "group meetings in which you and the people you work with can discuss things with your superior." Fifty-seven percent of the staff nurses reported that they never have such group meetings.

Variations in the size of the nursing staff and its constituent units as well as variations in the over-all pattern of administration in the nursing department affect the extent to which information is disseminated by means of formal announcements and directives or is exchanged in group meetings. Whatever the size and pattern of organization, however, it is expected that supervisory personnel will talk with their subordinates and that at least some of their talking will be

relevant to the organizational condition of the nursing staff. It is assumed that nursing personnel will talk to persons other than their supervisors or subordinates and that some of their talking, also, will be relevant to the organizational condition of the nursing staff. To test our hypotheses about the relation between communication within the nursing staff and the integration of the nursing staff, empirical measures were devised as indicators of the communication variables, "normative integration," "functional integration," and "communicative integration." The operations used to translate these concepts into concrete terms are described below.

Data were collected during the period November 4, 1957 to December 13, 1957 by paper-and-pencil questionnaires administered by members of the study staff to nursing personnel in each of the participating hospitals. Closed-answer questionnaires were used, a different form of the questionnaire being administered to supervisory nursing personnel, to staff nurses and practical nurses, and to aides and orderlies. Many questions were duplicated on all three forms of the questionnaire, but certain questions were asked on only one or two of the three forms. The questionnaire form administered to members of any specific nursing category (e.g., head nurses, staff nurses, aides) was identical from one hospital to another.

Information about nursing personnel comes from a stratified sample of nursing staff members drawn in each hospital. From lists of the names of all full-time and part-time non-supervisory registered nurses (staff nurses), a sample was drawn. The sampling ratio varied according to the size of the population. In seven of the ten hospitals, one out of three nurses was selected; in the remaining three hospitals,

one out of two nurses was selected. The total number of staff nurses in the sample for all ten hospitals combined is 196, with from 14 to 27 in each hospital.

A sample of practical nurses was drawn in a manner similar to that used for staff nurses. The total number of practical nurses in the sample was 140, the number in individual hospitals varying from 8 to 21.

A sample was drawn from the lists of aides and orderlies who were working full-time at each hospital. The total number of aides and orderlies was 203, with from 12 to 26 in individual hospitals.

The response rate was unusually high. Of all those who actually were given questionnaires to be filled out (about 94 percent of those originally selected), less than 3 percent failed to return completed questionnaires (did not return them, left them blank, or refused to take them).

The research problem with which we are concerned is the functional significance of certain patterns of communication among roles in the nursing organization of hospitals. Accordingly, our unit of analysis is the nursing role in a hospital rather than the individual member of the nursing staff. In the analysis of data, each respondent group (RNS, PNS, and A&O) in each hospital will be represented by its mean response to each questionnaire item, e.g., the average response of practical nurses in Hospital #1 to an item about the adequacy of the superior's communication. In data analysis, therefore, our number of cases will always be ten--equal to the number of hospitals in the study.

The statistic used to express the direction and magnitude of association between the component variables of communication and integration will be the Spearman rank order correlation coefficient.[2]

Indicators of the Communication Variables

The hypotheses presented in Chapter I relate aspects of nursing department integration to: (1) perception by nursing personnel that their supervisors' communication is "adequate," provides or solicits information, or provides socioemotional support; (2) concentration of task-relevant communication in the formal channels between supervisors and subordinates; (3) communication across organizational levels; and (4) frequent communication between superiors and subordinates.

The adequacy of supervisors' communication was indicated by answers to the following question:

> In general, how do you feel about the kind of communication which you receive from your immediate superior? (Check one)
>
> ____(1) The kind of communication I receive from my immediate superior is completely adequate
> ____(2) Very adequate
> ____(3) Fairly adequate
> ____(4) Rather inadequate
> ____(5) The kind of communication I receive from my immediate superior is inadequate

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2. W. S. Robinson ("Ecological Correlations and the Behavior of Individuals," American Sociological Review, Vol. 15, No. 3 (June, 1950), pp. 351-357.) has pointed out the fallacy of equating ecological correlations, where the statistical object is a group of persons, with individual correlations. Our basic data are from individuals, but hypotheses concern the implications of communication patterns among role incumbents for the organization's integration; use of group means and ecological correlations is, therefore, appropriate. In interpreting the association between supervisors' quality of communication and subordinates' assessment of their role performance, it must be remembered that correlations represent the pattern of association for the group of subordinates, not for individuals.

Using the five-point scale formed by the response alternatives for the above question, hospital means were computed based on the responses supplied by each group of nursing personnel. The variation among hospitals was about the same for each group studied. For aides and orderlies, the individual hospital means varied from 1.53, signifying the hospital where aides and orderlies perceived the communication to be most adequate, to 2.40, signifying the hospital where aides and orderlies perceived the communication to be least adequate. The range of means for practical nurses' responses to the question was from 1.65 to 2.38. The range of means for staff nurses' responses to the question about the adequacy of the superior's communication was from 1.69 to 2.36.

Data about specific qualities of the supervisors' communication were obtained from a multiple-item question asking the respondent to: "Check in the appropriate column. . .how often your immediate superior talks to you in each of the following ways: (Check one for each item)." Among the items were: "explains things or gives information or suggestions;" "asks you for suggestions or opinions;" "asks you for information, explanation, or clarification;" "criticizes you, refuses to help, or is unnecessarily formal;" and "gives excess, unnecessary information or comments." For each of these items, the respondent could select from the following response alternatives: (1) "Always or nearly always;" (2) "Most of the time;" (3) "Sometimes;" (4) "A few times;" and (5) "Seldom or never." The table below shows the range of means for each of the "style of communication" items for each of the three respondent groups who were asked the question. Table II-1 shows that the range of means is .50 or greater for every item except "criticizes you,

TABLE II-1. Range of hospital means concerning qualities of superiors' communication for each of three respondent groups.

Qualities of Superiors' Communication	Range of Means for Each Group		
	RNS	PNS	A&O
"Facilitative"			
Explains things or gives information or suggestions	2.06--2.86	1.64--2.46	1.44--2.35
Asks you for suggestions or opinions	2.46--3.35	2.20--3.62	2.61--3.67
Asks you for information, explanation, or clarification	2.29--3.45	2.40--3.55	2.20--3.64
Expresses appreciation	2.50--3.79	2.29--3.21	2.38--3.29
"Non-facilitative"			
Criticizes you, refuses to help, or is unnecessarily formal	4.50--4.89	4.50--5.00	4.75--5.00
Gives excess, unnecessary information or comments	4.39--4.94	4.13--5.00	4.47--5.00

refuses to help, or is unnecessarily formal." It is felt that the range of means is sufficiently wide to justify our ranking the ten hospitals according to the mean response to these items.

Comparing the range of means for each of the three groups, we find certain patterns which may be attributed to differences in the skill and responsibility of these nursing groups. Table II-1 indicates that aides and orderlies are most likely to report that their immediate superior explains things or gives information or suggestions. As auxiliary nursing personnel, aides seldom have special skills and generally receive a good deal of direction from their superiors. Next most likely to report that supervisors give frequent explanation, information, or suggestions are the practical nurses. The special training of registered nurses and their responsibility for professional performance appear to be reflected in the fact that they are least likely to report that their supervisor "always" or "most of the time" gives explanation, information, or suggestion. It appears that RNS are expected to know a great deal about nursing standards and procedures and therefore are less likely than other groups to receive explanation from their supervisors.

The reported frequency with which the supervisor asks for suggestions or opinions has a narrower range for RNS than for PNS or A&O. Although the highest mean for RNS (representing the hospital in which their supervisors most frequently request suggestions or opinions) is lower than the highest mean for PNS, the low end of the range represents a higher frequency of requests for suggestions or opinions than does the low end of the range for either practical nurses or aides. Because of their greater skill and responsibility, it is reasonable that registered

nurses be more frequently consulted for their opinions than are PNS or A&O. By the same token, registered nurses are more likely than are practical nurses and aides to be asked for information or explanation. The R.N. is more accountable for what she does on the job and probably is more likely than a member of the other skill groups to have information relevant to the supervisor's own decision or behavior.

The RNS are somewhat more likely than the other two groups to report their supervisor to be non-supportive. Does this reflect supervisors' higher expectations for the performance of registered nurses? Or the R.N.'s sensitivity to social distance between herself and another R.N. who happens to be her supervisor? Or reluctance on the part of PNS and A&O to report that their supervisors criticize or withhold help? Or mere chance? The data do not tell us, so we withhold judgment until additional data suggest which interpretation is more likely. Here we confront a problem which will be considered in greater detail at a later point in the dissertation--our confidence in statements about social phenomena which are based on the reported attitudes or perceptions of assorted informants. Our respondents are not objective observers using standardized scales; rather, they are emotionally involved in the situation which they report and they are using different criteria to evaluate their interaction with the supervisor. We are, however, led by W. I. Thomas' injunction: "If men define situations as real, they are real in their consequences." Subordinates' perceptions of their interaction with the immediate superior are socially "real." We can avoid the danger of pursuing necessary or tautologous relationships if the items whose relationship we test can reasonably be considered independent.

Another measure of the quality of supervisors' communication was the following question:

How often does your immediate superior express appreciation for your work? (Check one)

____(1) Always or nearly always expresses appreciation for my work
____(2) Very often
____(3) Often
____(4) Sometimes
____(5) Seldom or never expresses appreciation for my work

The range of means for RNS, PNS, and A&O respectively was 2.50 to 3.79, 2.29 to 3.21, and 2.38 to 3.29. Registered nurses are less likely than practical nurses and aides to report that their immediate superior frequently expresses appreciation. Again the question of interpretation--do nursing supervisors apply more stringent criteria to the performance of R.N.'s and therefore express appreciation for their work less frequently than they do for the work of P.N.'s and aides? Do staff nurses require stronger affirmation than do the other groups to have the supervisor's comments "feel like" appreciation? Are the PNS and A&O more likely than the RNS to give a sanguine report of interaction on the job because they perceive the survey to be a check-up by management? Whatever the reason, staff nurses are less likely than the other two groups to give highly favorable responses to the questions about the supervisor's behavior.

To measure the amount of communication between nursing personnel and their superiors, the following items were used:

____(1) I usually talk with my immediate superior less than 1/4 hour per week
____(2) Between 1/4 and 1/2 hour per week
____(3) Between 1/2 and 1 hour per week

____(4) Between 1 and 2 hours per week
____(5) Between 2 and 4 hours per week
____(6) I usually talk with my immediate superior more than 4 hours per week

Using the six-point scale formed by the preceding alternatives, means were again computed for each respondent group in each hospital. The range of means for RNS, PNS, and A&O respectively was 2.79 to 3.73, 2.50 to 4.45, and 2.41 to 4.37. The fact that the auxiliary nursing groups tend to report more communication with the immediate superior than do staff nurses may be attributed to the staff nurse's comparatively greater autonomy and self-direction.

As an indication of the frequency with which nursing personnel talk to their supervisors about topics of varying task-relevance, this question was used: "How often do you usually talk with your immediate superior about each of the following things?" The items about which the information was obtained were, in order: "About ways in which patient care could be improved;" "About ways in which nursing supervision could be improved;" "About work;" "About employee wages, hours, or benefits;" "About ways in which working relations between departments could be improved;" "About ways in which satisfaction or morale among nursing personnel could be improved;" and "About things, people, or happenings outside the hospital." The response alternatives were identical for all seven items: (1) "Once a month or less often," (2) "Two or three times a month," (3) "About once a week," (4) "Several times a week," and (5) "Once a day or more often." The range of means for each item and each respondent group is given below.

TABLE II-2. Range of hospital means for each of three respondent groups concerning topics of communication.

Topic of Communication	Range of Hospital Means for Each Group		
	RNS	PNS	A&O
Ways in which patient care could be improved	2.00--2.86	1.27--2.11	1.82--2.78
Ways in which nursing supervision could be improved	1.25--2.06	1.11--2.33	1.25--1.84
Work (not further specified)	2.83--3.71	2.33--3.91	2.55--3.89
Employee wages, hours, or benefits	1.07--1.81	1.00--1.92	1.20--2.44
Ways in which working relations between departments could be improved	1.31--1.87	1.12--1.91	1.42--2.17
Ways in which satisfaction or morale of nursing personnel could be improved	1.57--2.18	1.27--2.11	1.30--1.89
Things, people, or happenings outside the hospital	2.47--3.58	2.00--3.57	1.81--3.33

The table above shows that the two general topics, "work" and "things, people, or happenings, outside the hospital" are talked about most frequently. Comparing the frequency of communication about each topic as reported by each group of nursing personnel, we find the RNS are more likely than the other groups to talk frequently with their superiors about improvements in patient care, improvements in morale, and things outside the hospital. As those who are professionally trained to assess and be responsible for nursing care, it is reasonable that R.N.'s would talk more than other groups about ways to improve patient care. That they are more likely than other groups to talk frequently with their superiors about things outside the hospital appears to reflect the fact that they are virtual peers of their supervisors and more likely to have common interests with the supervisor off the job. As a group, A&O are more likely than the other two to talk frequently with their superiors about employee wages and hours and about work relations between departments. This would seem to reflect the fact that aides have little if any bargaining power and typically make very low wages. Also, aides are likely to be transferred from one nursing department to another as the demand arises and to have frequent contact with unskilled workers in non-nursing departments such as housekeeping and dietetics. They are therefore quite likely to experience (or fall prey to) day-to-day interdepartmental problems which may arise.

All of the preceding questions elicited data about the communication of nonsupervisory nursing personnel with their immediate superiors. These data are used to represent communication in formal organizational channels. Of course formal channels involve communication in both directions between superiors and subordinates; to get a more complete

picture of communication patterns we would also use data from supervisors about their communication with subordinates. In this study, however, we are confining our discussion to data from nonsupervisory personnel, accepting their perceptions of the communication between them and their superiors as an important part of social reality in the action structure of the nursing department.

To represent communication through informal channels, respondents were asked about communication with the person in the hospital with whom they talk most. Identical or similar questions to those used with reference to superiors were used in reference to most-talked-to persons. In the majority of cases, the data obtained from this last set of questions, (not presented here) compared with the data obtained about communication with the immediate superior, show that nursing personnel talk more frequently about each of the several specific topics with the person with whom they talk most in the hospital than with their immediate superior. The specific disparities between the average frequency of talking with the most-talked-to person and talking with the immediate superior vary by hospital and by topic. What is relevant to our hypotheses, however, is that the arithmetical difference between the mean frequency of talking with the immediate superior and the frequency of talking with the most-talked-to person provides us with an indicator of the relative degree to which communication is concentrated or centralized in the formal channels. The greater the frequency of talking about a given topic with the immediate superior in relation to talking about it with the most-talked-to person, the more the communication is concentrated in formal channels. This measure

of concentration in formal channels or centralization often will be used instead of straight frequency measures in presenting findings.

A final communication variable about which data were obtained concerns the primary direction of communication among nursing personnel. We can think of communication in an organization such as a hospital as being primarily horizontal, i.e., taking place among persons of the same or equivalent organizational positions, or as being primarily vertical, i.e., taking place among persons at different levels or positions in the organization. To measure the direction of communication between nursing personnel and persons with whom they talk most frequently, the following question was asked of respondents:

> What position in the hospital does this person with whom you talk most frequently have? (Check one)
>
> ____(1) This person has a position lower than mine
> ____(2) This person has a position at the same level as mine
> ____(3) This person is my immediate superior
> ____(4) This person has a position higher than mine (but is not my immediate superior)

Since the response alternatives in this question do not form a scale, percentages instead of means were used to indicate primary direction of communication in the various hospitals. The table below shows the range of percentages for each respondent group in each hospital.

Indicators of the Integration Variables

Three aspects of integration are measured: normative, functional, and communicative. Normative integration is the extent to which members of the group perform in accordance with the group's standards for their performance, or the extent to which they meet the group's expectations for someone in that role. In general terms, this

TABLE II-3. Range of percentages for three respondent groups concerning organizational level of the person talked to most

Organizational Level of Most-talked-to Person	Range of Percentages for Each Group		
	RNS	PNS	A&O
At a higher level, other than the immediate superior	0--21%	0--45%	13--48%
The immediate superior	4--48	7--36	0--33
At the same organizational level	24--70	25--72	36--77
At a lower organizational level	0--36	0--17	0-- 8

may be translated, "How good a job does _____ do?" Most roles, of course, have a congeries of specific expectations associated with them. As an indicator of one aspect of normative integration in the group headed by the superior, the following question was used:

> How good is your immediate superior in planning, organizing, and scheduling the work? (Check one)
>
> ____(1) Excellent
> ____(2) Very good
> ____(3) Good
> ____(4) Fair
> ____(5) Rather poor
> ____(6) Poor
> ____(7) Very poor

Other indicators of normative integration in the superior-subordinate relationship came from a multiple-item question asking respondents to: "Check in the appropriate column. . .how much you agree with each statement as it applies to your immediate superior. (Check one for each item)." The response alternatives provided were: (1) "Strongly agree," (2) "Agree," (3) "I cannot decide," (4) "Disagree," and (5) "Strongly disagree." Among the items on which this assessment of the superior was requested were the following: "Is helpful. . .," "Does the things which are right for someone in her position," "Is personally likable . . .," and "Is an expert in her field. . ." These measures of the role performance of the superior are related to four of the five bases of interpersonal power enumerated by J. R. P. French: reward, legitimacy, attraction, and expertise. Although "logically," the response alternatives do not form a scale, i.e., "I cannot decide" is not a degree of agreement, it is felt that they do "psychologically." Therefore, means were calculated for each respondent group in each hospital and were ranked accordingly.

The last question asked about the role performance of the immediate superior was: "Taking all things into consideration, how satisfied are you with your immediate superior?" Respondents could choose any of the following alternatives: (1) "I am completely satisfied. . .;" (2) "I am very well satisfied," (3) "I am fairly well satisfied," (4) "I am somewhat dissatisfied," and (5) "I am dissatisfied with my immediate superior."

Another aspect of normative integration is the extent to which a subgroup within the organization conforms to the expectations which members of the organization have for it. Because the principal objective of the community general hospital is to provide good patient care, and because the nursing staff bears a great deal of the responsibility for providing good patient care, it was felt that a legitimate indicator of their integration into the hospital organization is the judgment of qualified observers as to how well the nursing staff is performing its job. "Qualified observers" are those with both the technical training for evaluation and the opportunity to observe. It is felt that doctors and staff nurses are not only both competent to judge nursing performance but also close enough to patient care to be able to judge how well members of the nursing staff are performing in their roles. Doctors and staff nurses were asked, "On the whole, what kind of job would you say each of the following does for this hospital?" "The following" referred to various nursing groups, including registered nurses, practical nurses, and nurse's aides. The response alternatives offered were: (1) "An excellent job," (2) "A very good job," (3) "A good job," (4) "A fair job," and (5) "A rather poor job." For each hospital, means were computed separately on the data from doctors and

from staff nurses. The means were combined after each had been properly weighted according to the sampling ratio used for the doctors and the staff nurses in each hospital. Thus, an over-all mean representing the judgment of nurses and doctors was calculated for each of the ten hospitals. The range of these means was from 1.88 to 2.51 concerning the job done by registered nurses; from 2.10 to 2.70 concerning the job done by practical nurses; and from 2.28 to 3.11 concerning the job done by aides. Of the three groups which were rated, the aides generally received the lowest ratings. The range of ratings for aides is wide, however, so that it overlaps the range of ratings for both registered nurses and practical nurses.

A similar measure of nursing performance was obtained by asking, "What kind of a job does the nursing staff as a whole do?" This performance indicator is based on the responses given by supervisory nurses and by doctors. Again, the means obtained for each respondent group were weighted according to the sampling ratio used for that group, and then combined to form an over-all mean for each of the ten hospitals. The range of means for the hospitals was from 1.87 to 2.62, using the same response alternatives as were given for the questions concerning performance of registered nurses, practical nurses, and aides. It will be noted that the range of means for the judgment of over-all nursing staff performance is quite similar to the range for the judgment of registered nurses' performance.

Still another measure of normative integration is the extent to which organization members believe that the nursing staff "puts out a good product." An index of the quality of nursing care was made up of the responses of various groups to questions such as "On the basis of

your experience and information, how good would you say is the nursing care given to patients in this hospital?"[3]

The extent to which the specialized and differentiated work of nursing personnel is brought together in a well-coordinated fashion to render good nursing care is an indicator of functional integration. The adequacy of coordination in the nursing department is measured by an index[4] composed of the responses of nursing personnel to questions such as "How often do you feel that people from the previous shift left you with unfinished work or with problems that should have been handled during their own shift?"

Communicative integration, or the extent to which communicative contacts permeate the group, is the inverse of a situation in which group members are socially isolated. Landecker suggests that the degree of attraction and rejection in the group would be indicative of the degree of communicative integration. Inasmuch as frequent communication has been shown to be associated with similarity in beliefs and values, consensus among group members is another indicator of communicative integration.

A measure of the degree to which nursing personnel interact with a minimum of tension or conflict was developed from responses to the multiple-item question given below.

> On the whole, would you say that in this hospital there is some tension or conflict (friction) between the two

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3. Construction of this index is discussed in Georgopoulos and Mann, op. cit.

4. Ibid., and Appendix, below.

groups in each of the following pairs? (Check one for every pair of groups)

Nursing personnel in one shift and nursing personnel in another shift

Nursing personnel in one division (section) and nursing personnel in some other division (section)

Nursing personnel in one classification and nursing personnel in another classification

For each of the pairs named above, the respondent was asked to check a five-point tension scale: (1) "A very great deal of tension," (2) "A great deal of tension," (3) "Some tension," (4) "A little tension," (5) "No tension at all."

Each of the indicators of nursing staff integration named above will be analyzed for all three respondent groups--RNS, PNS, and A&O. In Chapter V, however, we will narrow the focus to the role of staff nurse and examine data for that group alone. The two indicators of communicative integration with which we will be concerned in that chapter are consensus and commitment. Consensus is measured by the reciprocal of the variance of responses to each of seven questionnaire items. These will be discussed in greater detail in Chapter V. To measure commitment, the following question was asked: "How strongly identified do you feel (how much do you feel that you really belong) with each of the following?" The objects of identification with which we will be concerned are "my immediate work group" and "the team that treats the patients." In each case, the respondent was asked to indicate a position on the following four-point scale: (1) "Very strongly," (2) "Quite strongly," (3) "Fairly strongly," and (4) "A little."

Summary

In this chapter we have discussed the research site, the techniques used for gathering and analyzing data, and the data which have been used as measures of certain characteristics of communication and integration among nursing personnel. The aspects of integration with which our hypotheses are concerned are the role performance of the supervisors in the nursing staff as seen by their subordinates; the role performance of the nursing staff as a whole and of skill groups within it; the quality of care rendered by the nursing staff; the coordination of the nursing staff, the relative absence of conflict among nursing personnel; consensus among staff nurses; and staff nurses' identification with or commitment to the work group. In the next chapter we will relate some characteristics of superiors' communication to (1) subordinates' assessment of the superiors' role performance and (2) the relative concentration of task-relevant communication in the formal channels between superiors and subordinates. In Chapter IV we will relate some quantitative and structural aspects of communication among nursing personnel to the adequacy of their performance. In Chapter V we will examine data from staff nurses concerning their consensus and their degree of commitment to the work group as related to communication "up" and "down." Conclusions will be presented in Chapter VI.

CHAPTER III

COMMUNICATION OF SUPERVISORS WITH SUBORDINATES

In Chapter I the general theoretical orientation of this study was discussed. It was pointed out that communication is a medium for transmitting information and establishing shared or complementary expectations among role incumbents. It was noted that, because of the differential distribution of information, skill, authority, and responsibility among its personnel, an organization's effective functioning demands that a certain minimum of information relevant to the organization's tasks be channeled both "down" and "up" through the formal chain of command, i.e., that information relevant to their joint task concerns be exchanged between superiors and subordinates, or among other staff members whose work decisions are interdependent. In this chapter we shall examine data relevant to the ways in which certain communication characteristics of supervisors (as viewed by their subordinates) are related (1) to the subordinates' evaluation of the superiors' role performance and (2) to the relative concentration of the subordinates' communication in the channel between them and their supervisors.

Superiors' Mode of Communication and Role Performance

We suggested in the first chapter that the kinds of work problems encountered by nursing personnel, the physical arrangement of wards, and the lack of mechanization in work provide ample justification (if such is needed) for frequent communication between superiors and subordinates in the nursing staff. The supervisors' mode of communication

is an aspect of their role performance. Since it is the supervisors' job to direct work, maintain standards, and motivate good performance, it is assumed that those qualitive aspects of communication which tend to inform the subordinate how to proceed, to encourage the giving of information, or to affirm the competence or value of the subordinate or the work group will be valued and considered appropriate. Conversely, it is assumed that communicative acts which fail to show subordinates how to proceed, fail to solicit relevant information, and suggest the incompetence of the subordinates or the work group will not be valued and will be considered less appropriate to the superiors' role. The superiors' mode of communication, then, should be associated with subordinates' judgments as to the adequacy of the superiors' role performance. Differences in training among different categories of nursing personnel are associated with consequent variations in the skill and responsibility differentials between superiors and subordinates. These differentials may be reflected in the qualities of communication which subordinates value or see as appropriate role behavior for their supervisors. Table III-1 shows the correlations between qualitative aspects of superiors' communication and aspects of superiors' role performance as seen by subordinates.

According to the first hypothesis, the extent to which their superiors' communication is seen as "adequate" or as involving explanation, suggestion, or the expression of appreciation will be positively related to nursing personnel's evaluation of their superiors' performance and to their satisfaction with superiors. The data presented in Table III-1 tend to support this hypothesis. Looking first at the relation between "adequacy of communication" and superiors' ability in

TABLE III-1. Relations between certain qualitative aspects of superiors' communication and certain aspects of superiors' role performance, as seen by subordinates*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Qualitative Aspects of Communication from Immediate Superior		Aspects of Superiors' Role Performance: Superior is Good at Planning, Organizing	Superior Is Expert	Superior Does Right Things	Superior is Helpful	Superior is Likable	Satisfied With Immediate Superior
Adequacy of communication from superior	I	.93	.71	.90	.68	.68	.95
	II	.58	.39	.41	.75	.04	.29
	III	.78	.09	.88	.26	.55	.82
Superior explains things or gives information, or clarification	I	.90	.75	.78	.59	.75	.90
	II	.68	.47	.38	.25	.04	.22
	III	.72	.55	.79	.05	.27	.78
Asks for information, explanation or clarification	I	.74	.63	.74	.68	.39	.73
	II	.13	.18	.04	.08	.35	.36
	III	.35	.41	.54	.25	-.14	.29
Asks for suggestions or opinions	I	.51	.43	.62	.56	.19	.65
	II	-.37	.24	.37	.04	.69	.20
	III	-.21	.12	.05	-.24	-.41	-.04
Expresses appreciation	I	.72	.53	.80	.75	.21	.62
	II	.12	.08	.26	.53	.37	.50
	III	.42	-.08	-.13	.54	.16	.38

* All figures are rank-order correlation coefficients, based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

planning, the extent to which they do the "right things," their expertise, their helpfulness, their likability, and their subordinates' satisfaction with superiors, we find statistically significant positive correlations in eleven of eighteen cases. For staff nurses, both the general "satisfaction with superior" item and the five specific items about role performance are correlated with "adequacy of communication" at better than the five percent level of significance.

Concerning the correlation between aspects of the superior's role performance and adequacy of her communication, it is reasonable to ask whether we are simply relating one measure to a second measure of the same characteristic. Perhaps the high correlations are due to a general halo effect--the subordinate makes a global judgment of how "adequate" or "inadequate" the immediate superior is and fails to discriminate between specific aspects of performance. If such were the case, however, we would expect very limited variation in the magnitude of correlations between the different aspects of role performance and adequacy of communication. For the RNS group, correlations range from .68 to .95--all within the limits of statistical significance, and therefore not significantly different from each other. For the PNS group, however, the range of correlations between adequacy of superiors' communication and aspects of their role performance is from .04 to .75. Data from aides and orderlies show a range of correlations between .09 and .88. The test of significance of a correlation is whether it is statistically significant from zero. Since the lower end of the two ranges (.04 and .09) is zero for all practical purposes, and the higher end (.75 and .88) is statistically significant at the .01 level, the correlations at the lower and higher ends of the two

ranges are significantly different from each other. Correlations between aspects of the superiors' role performance and the more specific characteristics of the superiors' communication likewise show considerable variation, indicating that respondents do, in fact, distinguish among components of behavior and give comparatively independent judgments about them.

The magnitude of the correlations between superiors' role performance and the adequacy of superiors' communication is lower for the practical nurse group than it is for the staff nurse group. For practical nurses, adequacy of communication from immediate superiors correlates .58 with how good superiors are at planning and organizing the work and .75 with the extent to which superiors are seen as helpful. The correlations between adequacy and the subordinates' satisfaction with supervisors or the extent to which they see them as doing the right things, and being expert are positive but not statistically significant. There is no correlation between practical nurses' evaluation of the adequacy of their superiors' communication and their superiors' likability.

Data from aides and orderlies show statistically significant positive correlations between assessed adequacy of the superiors' communication and satisfaction with saperiors, superiors' skill at planning, and the extent to which superiors do "right things." The coefficient of .55 expressing the correlation between adequacy of communication and superiors' likability barely misses the .05 level of significance. The pattern of association between communication variables and aspects of superiors' role performance varies according to the skill level of the respondent group, i.e., according to whether the

respondents are staff nurses, practical nurses, or aides and orderlies. For all three respondent groups, however, there is a statistically significant positive association between adequacy of the superiors' communication and the extent to which they are seen as good at planning and organizing.

For staff nurses there is a statistically significant positive association between the frequency with which superiors explain things or give information or clarification and the five specific role performance variables, as well as the general assessment of satisfaction with immediate superiors. For practical nurses there is a statistically significant positive correlation between the frequency with which superiors explain and give information and the extent to which superiors are seen as good in planning and organizing. Data from aides and orderlies show a statistically significant positive association between superiors' explaining or informing and subordinates' satisfaction with superiors. Superiors' explaining and giving information also is correlated at a statistically significant level with superiors' ability at planning and organizing and the extent to which superiors do the right things for one in their position.

The next aspect of communication to be discussed is the extent to which the superior asks for information, explanation, or clarification. Data from staff nurses show a statistically significant positive correlation between this variable and the extent to which superiors are good at planning, do the right things for one in their position, are expert, are helpful, and the extent to which staff nurses are satisfied with their superiors. The picture is quite different for practical nurses or aides and orderlies, however. There is a correlation of .54

between the frequency with which the superior asks for information and the extent to which she "does the right things for one in her position," as seen by aides and orderlies. That figure, while missing statistical significance, seems to lend some support to the hypothesis; but when we look at the other correlations in this set, we find that the frequency with which immediate superiors ask for information, explanation, or clarification does not bear a significant relation to any of the positive assessments of superiors' role performance as seen by practical nurses or as seen by aides and orderlies. For each of these two respondent groups, five out of six correlations are in the predicted direction, however.

Turning to the frequency with which the superior asks for suggestions or opinions, we find generally high positive correlations with aspects of superiors' role performance as viewed by staff nurses. There are statistically significant positive correlations between that communication variable and the staff nurses' view of the extent to which superiors do the right things for one in their position and extent to which they are seen as helpful. The superiors' asking for suggestions or opinions also is significantly related to staff nurses' satisfaction with their superiors.

For practical nurses, there is a significant association between the superiors' asking for suggestions or opinions and the extent to which they are seen as likable. With that sole exception, there is no association between the frequency of their requesting suggestions or opinions and positive aspects of role performance, as seen by practical nurses or by aides and orderlies. Indeed, there is a negative correlation of -.41 between the superiors' asking for suggestions or opinions and the

aides and orderlies' judgment of their likability. While this correlation is not significantly different from zero, it is significantly different from the correlation of +.69 between the two variables found in the data from practical nurses. Apparently aides and orderlies have a different perception of what a likable supervisor does.

Finally, we review the data concerning the frequency with which the superiors express appreciation. In the eyes of staff nurses, this aspect of communication is associated with the superiors' ability at planning, doing right things in their position, being helpful, and with their satisfaction with superiors. For practical nurses and for aides and orderlies, respectively, there are correlations of .53 and .54 between expression of appreciation and their assessment of superiors' helpfulness. These two correlations are of fairly high magnitude, however they are not statistically significant. Concerning the other aspects of superiors' role performance--ability at planning, doing the right things, being expert, being likable, and subordinates' satisfaction with superiors--there is little if any association between them and the frequency of superiors' expressing appreciation, but a general pattern of positive correlation is shown.

If we look only at the data from staff nurses, Table III-1 gives strong support to our hypothesis that the extent to which superiors' communication is seen by subordinates as adequate, as giving or requesting information and suggestion, or as expressing appreciation will be positively related to subordinates' evaluation of how well their superiors perform their role and to their satisfaction with supervision. If we examine the data from practical nurses and from aides and orderlies, however, we do not find such support. There are statistically

significant associations between practical nurses' assessment of the adequacy of superiors' communication and their assessment of the superiors' ability at planning and the superiors' helpfulness. There are statistically significant associations between aides and orderlies' assessment of the adequacy of superiors' communication and their assessment of the superiors' ability at planning, the extent to which superiors do the right things, and how generally satisfied this employment group is with their superiors. But if we shift our attention from subordinates' assessment of the adequacy of superiors' communication to their assessment of more specific qualities of communication, we find that practical nurses and aides and orderlies do not appear to value the same qualities as do the staff nurses, even though the over-all pattern of relationships is positive and supports the hypothesis.

Table III-2 presents data showing how the three nursing groups' judgments of how frequently the superior uses selected qualities of communication relate to their judgments of the adequacy of superiors' communication. For all three groups there is a positive correlation between the superiors' explaining and giving information and suggestions and the adequacy of their communication--statistically significant at the .01 level in the case of staff nurses and aides and orderlies. Correlations in both Table III-1 and Table III-2 indicate that subordinates want explanation, guidance, suggestion, and that they associate the extent to which superiors give it with their evaluation of how well they are performing in the supervisory role. For staff nurses, the superiors' asking for information, explanation, or suggestion relates highly to their evaluation of the communication's adequacy.

TABLE III-2. Relation between certain qualitative aspects of immediate superiors' communication and the adequacy of superiors' communication, as seen by subordinates*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Qualitative Aspects of Communication from Immediate Superior		Adequacy of Communication from Immediate Superior
"Facilitative"		
Superior explains things, gives information and suggestions	I	.95
	II	.52
	III	.78
Asks for information, explanation, or clarification	I	.82
	II	.12
	III	.32
Asks for suggestions or opinions	I	.65
	II	.05
	III	.01
Expresses Appreciation	I	.72
	II	.35
	III	.30
"Non-Facilitative"		
Gives directions or orders	I	.37
	II	.35
	III	.01
Gives excess, unnecessary information or comments	I	-.04
	II	-.43
	III	-.18
Criticizes, refuses to help, or is unnecessarily formal	I	.07
	II	-.46
	III	-.67

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

For practical nurses, aides and orderlies, on the other hand, requests for information and suggestion are not related to adequacy of communication, nor are they strongly related to other indicators of the superiors' role performance. Even the expression of appreciation, which one surely would expect to be related to adequacy of the superiors' communication in the eyes of their subordinates, does not bear the expected relation.

It appears from the data that in a superior-subordinate relation between persons whose occupational training is similar, such as in the relation of a supervisory nurse and a staff nurse, the superior's requests for information or suggestion and expressions of appreciation are perceived as affirming the competence of the subordinate, as indicating the value of the subordinate's contribution. By contrast, in a superior-subordinate relation between persons whose occupational training is dissimilar or in which subordinates feel ill-equipped to evaluate the situations or procedures found on the job, it may be that the superior's requests for information or suggestion and expressions of appreciation are perceived as emphases on the disparity in training between the subordinate and superior. A person who has confidence in his understanding of the work may be eager to have his opinions and suggestions solicited, but a person who believes that his principal work obligation is to do as he is told may be threatened by or feel resentful of requests for opinion or suggestion.

It may be recalled from Chapter II that more than a third of practical nurses have had less than a high school education and that only a fifth have had any college. More than half of the aides and orderlies have had less than a high school education. By contrast,

about half of supervisory nurses and of staff nurses have had some college education. The actual level of formal schooling and professional training for practical nurses and aides emphasizes the disparity of functional and scalar status between themselves and their superiors. The formal schooling and professional training of staff nurses, on the other hand, is so nearly comparable to that of supervisory nurses that status differences are minimized. It is reasonable for registered nurses to see the positions of nursing supervisor and staff nurse to be differentiated more on the basis of function that on the basis of competence and, hence, to feel comparatively secure about the exchange of information in the superior-subordinate relationship.

Bales' formulations are particularly relevant at this point: 1) the distinction between activities in the "task" and "group maintenance" realms; 2) the designation of phases in problem-solving: orientation, evaluation, and control; and 3) the observation that "answers" predominate over "questions" in successful problem-solving groups. With regard to the communication variables we have discussed, "superior explains things or gives information or clarification" represents an answer to a question of orientation in the task area. "Asks for information, explanation, or clarification" represents a question of orientation. "Asks for suggestions or opinions" represents a question in the areas of evaluation and control. "Expresses appreciation" is a positive reaction in the social-emotional or group-maintenance area.

Turning to the aspects of role performance on which subordinates have rated their superiors, we can distinguish between those which are primarily related to the task ("is good at planning and organizing" and "is expert") and those which are primarily related to the social-emotional

area ("is helpful" and "is likable"). The extent to which the superior "does the right things" relates to the general quality of performance.

In data from staff nurses about their supervisors, there appear comparatively few distinctions between their assessment of task activity and group-maintenance activity or between their evaluation of questioning and answering. In the data from practical nurses and aides, however, the supervisor's answering is associated with favorable judgments of her performance in task areas but shows less association with her performance in group-maintenance. Among practical nurses, the supervisor's request for orientation is not related to her role performance. Among aides and orderlies, the supervisor's asking for orientation shows low correlations with all aspects of her role performance, but of the set of low correlations, those of higher magnitude are in the task areas.

The supervisor's question in the area of evaluation and control is, in the view of practical nurses, related negatively to her skill at planning and organizing but positively to her likability. In the view of aides and orderlies, the supervisor's request for suggestions or opinions is either not related or negatively related to all aspects of her role performance.

The positive reaction of expressing appreciation is related to the P.N.'s approval of their supervisors' group-maintenance activity but not task activity. For aides and orderlies, expressing appreciation is associated with the supervisor's being helpful and good at planning and organizing. For neither practical nurses nor aides and

orderlies is the superior's expression of appreciation related to her being expert or doing the right things.

In an earlier paragraph the differential in education, skill, and responsibility between superior and subordinate was discussed in relation to its inferred influence on the responses of nursing personnel at different levels. Perhaps, however, it is not so much the differential between superior and subordinate as it is the absolute level of education of the subordinate which explains the systematic variation in response by organizational levels. If one of the primary objectives of higher education is to raise doubts, to demand analysis and critical judgment, to encourage evaluation and develop criteria for it, then staff nurses ought to be different from the other two groups of nursing personnel in the way they approach the task and task problems. Staff nurses apparently accept and value question-asking and the stages of orientation and evaluation as the other nursing groups do not. And having criteria to evaluate their own performance, they respond favorably to expressions of appreciation from their superior.

The complement of hypothesis #1 is that the extent to which subordinates perceive the superior's communication as failing to provide or solicit information or as failing to provide socioemotional support will be negatively related to their judgment that the superior is performing her role adequately. The data presented in Table III-3 lend support to at least the final section of the hypothesis: there are negative correlations between superiors' use of criticism and their subordinates' evaluation of their performance. As in the data for the first hypothesis, we find differences in the association between

TABLE III-3. Relations between certain qualitative aspects of superiors' communication and certain aspects of superiors' role performance, as seen by subordinates*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Qualitative Aspects of Communication from Immediate Superior		Superior is Good at Planning, Organizing	Superior Is Expert	Superior Does Right Things	Superior is Helpful	Superior is Likable	Satisfied With Immediate Superior
Gives Directions or orders	I	.46	.49	.07	-.17	.54	.42
	II	.42	.24	-.18	-.14	-.41	-.07
	III	.07	.29	.02	-.24	-.24	.36
Gives excess, unnecessary information or comments	I	-.11	.00	-.07	-.05	.16	.07
	II	-.22	-.39	.01	-.41	.53	.19
	III	.08	-.44	.02	-.44	-.45	-.12
Criticizes, refuses to help or is unnecessarily formal	I	.09	.02	-.09	.16	-.22	.26
	II	-.11	-.68	-.76	-.24	-.30	-.42
	III	-.59	.22	-.59	-.24	-.70	-.59

* All figures are rank-order correlation coefficients, based on an N of 10 hospitals in each case. Coefficients larger than $\pm$.56 are significant at the .05 level, and those $\pm$.75 or larger are significant at the .01 level.

variables according to the skill group of the respondents. Thus, for example, there is a positive, though not statistically significant, relation between the superiors' giving of directions or orders and their ability to plan, as seen by staff nurses (rho = .46) and practical nurses (rho = .42). For staff nurses there is a positive correlation between the superiors' giving of direction or orders and their likability (rho = .54). For practical nurses, on the other hand, there is a negative correlation between the superiors' giving of directions or orders and their likability (rho -.41).

When we anticipated negative correlations between frequent giving of directions and orders and the subordinate's favorable assessment of the superior's performance, we assumed that the subordinate would value his own judgment and competence and therefore resist extensive direction. Our measurement of this item was poor, for we failed to distinguish between what Bales calls "giving suggestion, direction, implying autonomy" and "attempting to control, direct, or supervise in a manner interpreted as arbitrary or autocratic." In the former category would be included, also, supervisors' directions which establish priorities and routines necessary to coordination of effort. Data from R.N.'s and P.N.'s show that the superiors' giving of directions and orders is consistent with favorable evaluation of their performance in task areas (good at planning, is expert). Data from practical nurses, aides, and orderlies show it to be inconsistent with favorable evaluation of their performance in socioemotional areas (helpful, likable). In Table III-3 as in Table III-1, the data suggest that there is less distinction made between task and group-maintenance values among staff nurses than there is among the other two groups.

Concerning the superiors' tendency to give excess, unnecessary information and comments, generally we find either no correlation or a negative correlation with aspects of the superiors' role performance, as seen by all three respondent groups. The disparity between the correlations of the superiors' giving excess information and being likable as seen by practical nurses and as seen by aides and orderlies is intriguing. For practical nurses the relation is positive (rho = .53); for aides and orderlies the relation is negative (rho = -.45). In view of the jurisdictional dispute which often characterizes the relations between registered nurses and practical nurses, one wonders if the principal "safe" or "pleasant" communication between the two levels must be about topics which are unnecessary or irrelevant to their work. This speculation is relevant to data about topics of communication which we will discuss at a later point in the chapter.

Table III-3 suggests that practical nurses and aides and orderlies are more sensitive to criticism from the superior than are staff nurses. There is no relation between the frequency with which the superior "criticizes, refuses to help or is unnecessarily formal" and the staff nurses' estimate of aspects of her role performance. For practical nurses, however, there is a statistically significant negative correlation between the superiors' frequency of giving criticism or withholding help and the extent to which they are considered to be doing the right things for one in their position and to be expert. Data from aides and orderlies show a statistically significant negative correlation between the superiors' withholding of help and the subordinates' assessment of the superiors' ability in planning, the extent to which

they do the right things in their position, their likability, and the extent to which subordinates are satisfied with supervision.

Alternative inferences may be drawn from the data presented in the first three tables: (1) the higher the organizational position or skill level of the subordinate, the more likely he is to be able to accept a range of communicative styles, or (2) the smaller the disparity in organizational position or skill level between superior and subordinate, the more likely the subordinate is to be able to accept a range of communicative styles. Because our unit of analysis is the hospital organization rather than the individual respondent and we do not have information which would permit us to measure (other than in terms of general organizational position) the disparity of training between specific respondents and their immediate superior, we cannot assess the relative contribution of each of the factors (organizational position or skill level, per se, and disparity of organizational positions or skill levels as between superiors and subordinates). It seems safe to assume that both factors are operating. This interpretation is consistent with findings from public opinion studies (cf. Stouffer, Bell) which have shown the tendency for persons with low status occupations and/or low levels of education to be more threatened by authority figures and less tolerant both of ambiguous situations and of criticism of existing situations than are persons of higher status occupations and/or levels of education.

Another way of looking at how subordinates evaluate their superiors in relation to the superior's mode of communication is in terms of the A-B-X system, in which A is the superior, B is the subordinate, and X is B's task-relevant information, opinion, and performance. In

predicting that the superior's requests for information and opinion and her expressions of appreciation would be associated with favorable assessment of her performance, we assumed that the subordinate would value her own information, opinion, and performance and thus esteem the superior who recognized their value. If B values X but does not value A's recognition of X, B must perceive that recognition to be inappropriate. Perhaps it is an indication that A is incompetent that she must request information and suggestions from those of lower training and status. Perhaps it is an indication that A is insincere or ingratiating. Still, if B does value her own judgment and work, it would seem that she would desire recognition of it from her superior.

Negligible correlations between the subordinate's favorable assessment of the superior's performance and the subordinate's perception of how frequently the superior indicates an appreciation of her judgment and work suggest that the subordinate may not, in fact, value her own judgment and work, or that the valuation is tenuous and insecure. If that is the case, the superior's requests for information, opinion, suggestion and the superior's expression of appreciation may be anxiety-producing. This situation may pressure the subordinate either to revise her estimate of the significance of her judgment and work (which involves an increase in her responsibility) or else to doubt or reject the superior's apparent estimate (which involves no increase in felt responsibility on the subordinate's part but may diminish her view of the superior's authority).

Interpreting the fact that staff nurses appear to be more positively impressed by appreciation and less negatively impressed by criticism than are practical nurses or aides and orderlies, we infer that

education and technical training provide the bases for directing and evaluating one's own actions and, thus, for taking responsibility. The staff nurse has internalized criteria by which to judge variations in performance. She can make judgments independent of her supervisor as to what is good and bad practice, what is effective and ineffective organization. For that reason, she can take responsibility for her own performance, be pleased when her good performance is recognized by her superior (who, presumably, is using similar criteria) and either accept or reject criticism on the basis of her own judgment as to whether or not it is deserved.

The criteria by which practical nurses and aides assess their own performance are less secure, more dependent on the superior's judgment. Both praise and blame for one's performance presuppose that one has bases for self-direction and -evaluation. If one is not self-directed, if one does not have internalized criteria for differentiating good from bad performance, how can he accept either praise or censure? How can criticism, particularly, be weighed in terms of objective standards if there are no objective standards? If practical nurses and aides accept direction from R.N.'s and then are criticized, they may be particularly resentful and deny responsibility for their performance, declaring, in effect, "if the supervisor were any good, she would give me the right directions!"

Amount of Communication and Superiors' Role Performance

Our second hypothesis, based on the assumption that attraction and the amount of communication are interrelated, states that the amount of communication with the superior will be positively related to the

subordinates' judgment that the superior is performing her role adequately. Table III-4 presents the relevant data. The hypothesis is not supported; indeed, the aides and orderlies appear to be saying that the worse the supervisor is the more she talks to them. One gets the picture of a nagging, fault-finding supervisor who protests and talks at her subordinates but does not facilitate their work. We recall that communication is an indicator of the presence of unsolved problems as well as a potential means to their solution. Communication which is irrelevant or unproductive may deter or prevent the exchange of relevant information in the formal channels just as effectively as the breaking of the channels.

Superiors' Communication and Concentration of Communication in Formal Channels

The third hypothesis is that the frequency with which superiors use facilitative communication will be positively related to concentration of communication in formal rather than in informal channels. The counterpart of this hypothesis is that non-facilitative communication from the superior will be negatively related to concentration of communication in formal channels. Referring to Jacques' findings, we assume that if the supervisor's mode of communication is generally facilitative, communication about work will be encouraged in the supervisor-subordinate relationship and will tend to be concentrated there, since it is the organizationally approved channel for identification and resolution of task problems. If the supervisor's style of communication is generally non-facilitative, communication about the work will tend to be diverted from formal into informal channels.

TABLE III-4. Relation between amount of communication with superior and aspects of the superiors' role performance*

Average Amount of Communication with Superior	Aspects of the Superior's Role Performance: Superior is Good at Planning, Organizing	Superior Does Right Things	Superior is Expert	Superior is Helpful	Superior is Likable	Satisfied With the Immediate Superior
Staff Nurses	.02	.19	-.55	.22	-.33	.02
Practical Nurses	-.48	-.04	.20	.03	.34	-.22
Aides and Orderlies	-.21	-.70	-.60	-.26	-.64	-.25

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than $\pm .56$ are significant at the .05 level, and those $\pm .75$ or larger are significant at the .01 level.

The correlations presented in Table III-5 support the third hypothesis so long as we limit discussion to data from staff nurses. The findings show that the frequency with which staff nurses talk to their immediate superiors (communication in formal channels) about ways to improve nursing supervision and ways to improve patient care (task-relevant topics) relative to the frequency with which they talk to the most-talked-to person (informal communication) increases with the extent to which communication from the superiors is seen as adequate or as involving explanation, suggestion, or expression of appreciation. Although not all the specific correlations between each of the two task-relevant topics and each of the "positive" qualitative aspects of superiors' communication are statistically significant, the pattern of association found in the data from staff nurses clearly supports the third hypothesis.

With respect to talking about employee benefits--not a task-relevant topic--the opposite holds true, i.e., the frequency of talking about employee benefits with superiors relative to talking with most-talked-to persons decreases with the extent to which superiors' communication is facilitative. On the other hand, the findings concerning another topic which is not task-relevant, "things outside the hospital," are similar to findings obtained for the task-relevant topics "ways to improve patient care," and "ways to improve nursing supervision" and are opposite to the findings obtained for the topic, "employee benefits." It is likely that some conversation about things off the job is both a sign of a comfortable superior-subordinate relationship and enhances the likelihood of talking about task-relevant topics. Perhaps employee benefits, on the other hand, is a topic about which there is

TABLE III-5. Relations between certain qualitative aspects of the immediate superiors' communication and the frequency of talking with superiors relative to the frequency of talking with the most-talked-to-persons*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Qualitative Aspects of Immediate Superior's Communication		Frequency of Talking with Superiors Relative to Frequency of Talking with Most-talked-to Persons About: Ways to Improve Nursing Supervision	Ways to Improve Patient Care	Employee Benefits	Things, People, Happenings Outside the Hospital
Adequacy of communication from superior	I	.70	.56	-.27	.48
	II	-.28	.61	-.01	-.34
	III	.13	.03	.02	.24
Superior explains things or gives information and suggestions	I	.62	.50	-.24	.44
	II	.06	.66	.04	-.36
	III	.00	.19	.21	.62
Asks for information, explanation, or clarification	I	.53	.67	-.43	.68
	II	.39	-.19	.33	-.17
	III	-.07	.02	.44	.63
Asks for suggestions or opinions	I	.51	.71	-.71	.77
	II	.58	.10	-.43	-.10
	III	-.06	-.02	-.16	-.08
Expresses appreciation	I	.36	.54	-.54	.44
	II	.17	.24	-.64	-.01
	III	.03	.13	.71	.63

* All figures are rank-order correlation coefficients, based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

rare communication in the formal channels unless dissatisfaction is strong.

Table III-6 relates the extent to which the superiors' communication is seen by subordinates as involving the giving of directions or orders, unnecessary information, or criticism to the extent to which task-relevant communication tends to be concentrated in formal rather than informal channels. There are no statistically significant correlations between the three qualitative aspects of communication and the concentration of task-relevant communication in formal channels. However, the pattern of negative correlations with regard to "criticizes, refuses to help, or is unnecessarily formal" lends some support to the hypothesis, five out of six correlations being negative. It is interesting to note that for practical nurses there is a statistically significant positive correlation (rho = .72) between the supervisors' criticism and the extent to which talk about things off the job is concentrated in formal channels. For aides and orderlies, however, there is a negative correlation (rho = -.53) between the supervisors' criticism and the extent to which talk about things off the job is concentrated in formal channels. Could this indicate that practical nurses are more coerced than are aides and orderlies by supervisors' sanctions, and that when superiors communicate in a punitive or nonsupportive way practical nurses are fearful of talking about non-work topics with anyone but the superior, or that non-work topics are the only safe topic of conversation with the superior? These data obviously raise more questions than they settle.

TABLE III-6. Relations between certain qualitative aspects of the immediate superiors' communication and the frequency of talking with superiors relative to the frequency of talking with most-talked-to persons*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Qualitative Aspects of Immediate Superior's Communication		Frequency of Talking with Superiors Relative to Frequency of Talking with Most-talked-to Persons About: Ways to Improve Nursing Supervision	Ways to Improve Patient Care	Employee Benefits	Things, People, Happenings Outside the Hospital
Gives directions or orders	I	.37	-.04	.30	-.21
	II	-.23	-.03	.43	-.65
	III	-.46	.47	-.28	.14
Gives excess, unnecessary information or comments	I	.00	-.19	.00	-.18
	II	.34	.13	-.01	.38
	III	-.34	.20	.07	-.01
Criticizes, refuses to help or is unnecessarily formal	I	.10	-.04	.10	.08
	II	-.26	-.25	.49	.72
	III	-.31	-.35	-.48	-.53

* All figures are rank-order correlation coefficients, based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

Summary

In this chapter we have examined data relevant to hypotheses which link the amount and style of the superiors' communication to (1) the way in which subordinates evaluate the superiors' role performance and (2) the degree of concentration of task-relevant communication in formal channels between superiors and subordinates. Data from three groups of nursing personnel--staff nurses, practical nurses, aides and orderlies--show a positive association between their perceptions of (1) the adequacy of superiors' communication and (2) the frequency with which superiors give explanation, information, or clarification and their assessment of the superiors' role performance with respect to task, group-maintenance, and general supervisory activity. There is also a tendency for superiors' requests for information and opinion and their expression of appreciation to be positively associated with favorable evaluations of their performance in the supervisory role. Conversely, there is a tendency for superiors' expression of criticism to be negatively associated with favorable evaluations of their performance in the supervisory role.

The amount of communication from superiors tends to be negatively related to subordinates' assessment of the adequacy of superiors' role performance. This negative relationship is particularly consistent and striking in the data from aides and orderlies.

There is a tendency for the concentration of communication in formal channels to be positively related to the adequacy of superiors' communication and the frequency with which they express appreciation and to be negatively related to the frequency with which they express criticism. Data from staff nurses support all of the hypotheses

discussed in this chapter, but data from the other two nursing categories do not give consistent support to them. Indeed, perhaps the most noteworthy aspect of these data is that they demand interpretation in terms of the functional and scalar differences between skill groups in the hospital. We have discussed the implications of differences in formal education and professional training for subordinates' own role behavior and their expectations about the supervisors' role. We will give further attention to these role differences and to indicated modifications in our theoretical formulation in the concluding chapter.

In the chapter which follows we will be concerned with the association between communication among nursing personnel at different levels and the integration of the nursing staff as a whole.

CHAPTER IV

COMMUNICATION AMONG NURSING PERSONNEL AT DIFFERENT ORGANIZATIONAL LEVELS

In Chapter III we focused on the supervisor-subordinate relationship, asking how the quality and amount of communication from supervisors is related to the way in which their subordinates assess supervisors' role performance and the degree to which subordinates talk with supervisors rather than with others. In this chapter we shall focus on communicative relationships in the nursing department as a whole, asking how the relative amount of vertical communication (that between persons at different organizational levels, as distinguished from horizontal communication between peers or persons at the same organizational level) is related to measures of the nursing staff's performance, coordination, and intra-group tension.

We see communication as a medium for establishing standards, socializing new members of the group, and solving problems. Since supervisors are responsible for these activities, it seems appropriate and necessary to the effective functioning of the organization for a large proportion of the communication which occurs in the system to be centralized in the vertical channel between supervisors and their subordinates. There are also vertical channels between interdependent members of the nursing staff with greater or lesser skills, status, and responsibility, e.g., communication between staff nurses and aides. Staff nurses may be acting supervisors of less skilled nursing personnel, even though they do not have the title of "supervisor." To the extent that staff nurses set an example for nursing practice and help to socialize those with less professional

training, their task-relevant communication to those lower in the skill hierarchy than themselves should contribute to the adequacy of nursing staff performance.

Where interdependent workers have different levels of skill, authority, and responsibility--as in the nursing staff--there must be some means for establishing complementary expectations as to the work which each will do. Without such complementarity, conflict or tension develops. Communication is a means both for establishing complementary expectations and for resolving conflicts which may arise. Thus, communication between nursing classifications is seen as a coordinative mechanism and as a preventive of excessive friction between skill and status levels. We assume that the more satisfactorily task problems are handled in the vertical channels of communication between superiors and subordinates or between interdependent persons at different levels of skill and responsibility, the less impetus there is for diffusion of communication into horizontal channels. Thus, it is thought that a relatively high degree of vertical communication is both cause and consequence of adequate problem-solving. Accordingly, we hypothesize the following relationships:

1. The amount of communication of nursing personnel with their superiors will be positively related to nursing staff performance and coordination and negatively related to tension between nursing classifications.

2. Concentration of task-relevant communication in formal channels will be positively related to nursing staff performance and coordination and negatively related to tension between nursing classifications.

3. The relative amount of communication across organizational levels within the nursing staff will be positively related to nursing staff performance and coordination and negatively related to tension between nursing classifications.

Table IV-1 presents data relevant to the first hypothesis. As predicted, there are positive correlations between the amount of communication of staff nurses with the supervisors and measures of the role performance of the nursing staff and its constituent skill groups. Data from staff nurses show all correlations in the predicted direction and four out of seven significant at better than the .05 level. This association appears to be inconsistent with the finding, reported in Chapter III, that the amount of communication with supervisors is unrelated or negatively related to subordinates' assessment of the adequacy of supervisors' role performance. What, then, is the relation between supervisors' performance and the performance of the nursing staff?

Perhaps supervisors contribute relatively less to organizational functioning by being wholly satisfactory to subordinates than they do by maintaining an active exchange of relevant information with their subordinates while discouraging extensive communication in informal channels. The concentration of task communication in formal channels is more likely to occur, however, when subordinates see their supervisors to be facilitative.

It may be that high average amounts of communication between staff nurses and their supervisors are primarily indicative of departments staffed by a high proportion of full-time nurses. Where most staff nurses work full-time, organization may be more stable from day to day, leading to better coordination and nursing performance. De-emphasizing the importance of supervisors' communication, per se, this interpretation is nonetheless consistent with the general hypothesis linking frequent and regular communication to integration.

TABLE IV-1. Relations between amount of time talked to superiors and measures of nursing staff integration*

Average Amount of Time Talked with Immediate Superior	How Good A Job Aides Do	How Good A Job P.N.'s Do	How Good A Job R.N.'s Do	How Good A Job Head Nurses Do	How Good A Job Nursing Staff Does	Quality of Nursing Care	Quality of Overall Care
Staff Nurses	.70	.47	.73	.36	.79	.75	.54
Practical Nurses	.04	-.22	-.25	-.52	-.43	-.31	-.37
Aides and Orderlies	.48	.22	.26	.08	.44	.30	.45

	Nursing Staff Coordination	Tension Between Nursing Classifications
Staff Nurses	.35	-.08
Practical Nurses	-.21	-.10
Aides and Orderlies	.52	.33

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

Data from aides and orderlies reveal the predicted pattern of positive associations between amount of communication with superiors and nursing staff performance, although none of the correlations is statistically significant. As in previous cases, however, data from practical nurses show a different pattern of relationships: seven out of eight correlations are negative.

Correlations between the amount of communication with superiors and nursing staff coordination are in the predicted direction for staff nurses and for aides and orderlies, in the opposite direction for practical nurses. None are significant. The data lend no support whatever to the hypothesis that amount of communication with superiors will be negatively related to tension between classifications.

Data concerning the concentration of task-relevant communication in formal channels as related to nursing staff performance is given in Table IV-2. The selected task-relevant topics of communication are "ways to improve nursing supervision," "ways to improve patient care," "work" (unspecified), and "ways to improve work relations between departments." As shown in Table IV-3, data from staff nurses generally lend support to the hypothesis. The frequency of talking with superiors relative to talking with most-talked-to persons about each of four task-relevant topics (i.e., the relative centralization of task communication in vertical channels) is positively related to each of seven indicators of nursing staff performance with two exceptions. Of twenty-eight correlation coefficients, twenty-six are in the predicted direction and seven are statistically significant at the .05 level or better.

TABLE IV-2. Relations between the frequency of talking with superiors relative to talking with most-talked-to persons and aspects of nursing staff performance*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Frequency of Talking to Superior Relative to Talking with Most-talked-to Person About:		How Good A Job Aides Do	How Good A Job P.N.'s Do	How Good A Job R.N.'s Do	How Good A Job Head Nurses Do	How Good A Job Nursing Staff Does	Quality of Nursing Care	Quality of Overall Care
Ways to improve nursing supervision	I	.06	.44	.38	.58	.18	.26	.38
	II	.16	.17	.01	-.48	-.03	-.19	-.06
	III	-.13	.14	.33	.71	.41	.52	.38
Ways to improve patient care	I	.29	.76	.57	.59	.60	.43	.54
	II	.48	.56	.69	.70	.47	.60	.66
	III	-.12	-.16	-.29	-.32	-.26	-.20	-.15
Work (not further specified)	I	.40	.07	.00	.64	.25	.09	.27
	II	.20	.31	.09	.08	-.43	-.09	-.03
	III	.15	.33	.52	.41	.77	.66	.68
Ways to improve work relations between departments	I	-.23	.18	.14	.58	.38	.25	.51
	II	.73	.58	.59	.20	.50	.52	.54
	III	.02	.21	.23	.34	.40	.37	.35

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficient larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

TABLE IV-3. Relations between the frequency of talking with superiors relative to talking with most-talked-to persons and nursing department coordination and tension between classifications*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Frequency of Talking to Superior Relative to Talking with Most-talked-to Person About:		Nursing Department Coordination	Tension Between Classifications
Ways to improve nursing supervision	I	.58	-.07
	II	-.07	-.36
	III	.49	-.29
Ways to improve patient care	I	.59	-.30
	II	.60	-.08
	III	.02	.10
Work (not further specified)	I	.33	-.33
	II	-.19	-.01
	III	.87	-.46
Ways to improve work relations between departments	I	.55	-.37
	II	.28	-.42
	III	.61	-.84

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

The data from practical nurses also give support to the hypothesis. Of twenty-eight correlation coefficients, twenty-one are in the predicted direction and eight are statistically significant at the .05 level or better. The data from aides and orderlies show only nineteen out of the possible twenty-eight correlations in the predicted direction and only four coefficients which are statistically significant. It is interesting to note that eight of the nine correlations which are negative refer to the relation between nursing personnel's role performance and the relative centralization of aides' communication about ways to improve patient care.

Since aides and orderlies have no professional training which could help them evaluate patient care, it is reasonable to infer that their communication with superiors about that topic is somewhat inappropriate. Indeed, for aides and orderlies to be discussing ways of improving patient care may be a sign that professional personnel do not have the situation in hand and are appealing to unskilled workers to help out. On the other hand, it may be that these coefficients simply represent random fluctuation and are not "meaningful" theoretically. However, with the possible exception of aides and orderlies, the general pattern of data supports the hypothesis that centralization of task-relevant communication in the channel between superiors and subordinates is positively related to adequacy of role performance among nursing personnel.

The second hypothesis also states that centralization of task-relevant communication in vertical channels will be positively related to nursing staff coordination and negatively related to tension among the nursing staff. Table IV-3 presents the relevant data. For staff

nurses there is a positive correlation between centralization of communication about each of the four task-relevant topics and nursing department coordination, two of the coefficients being statistically significant at the .05 level. For practical nurses there is a statistically significant positive correlation between centralization of communication about patient care and nursing department coordination (rho = .60); however, there are non-significant negative correlations between coordination and centralization of communication about (1) improving nursing supervision and (2) work. Data from aides and orderlies show positive correlations between coordination and all four task topics, two of the four correlations being statistically significant.

In addition, the second hypothesis states that the centralization of task communication in the channels between superiors and subordinates will be negatively related to tension between nursing classifications. The pattern of correlations presented in Table IV-3 gives general support to this hypothesis. Eleven of the twelve correlations are in the direction predicted although only one is statistically significant. This is the one between tension and the centralization of aides' communication about ways to improve work relations between departments.

Vertical communication refers not only to that between supervisors and subordinates but also to communication between persons at different organizational levels, e.g., between staff nurses and aides. It will be recalled that nursing personnel were asked to indicate the organizational position of that person in the hospital with whom they talk most. Table IV-4, below, shows the percentage distribution of responses for each of the three respondent groups combined. In each

TABLE IV-4. Organizational position of the person in the hospital with whom nursing personnel talk most

Organizational Position of the Person Talked to Most	Percentages*		
	Staff Nurses	Practical Nurses	Aides and Orderlies
All levels	100	100	100
Higher than the respondent but not the immediate superior	6	21	30
The immediate superior	22	21	17
At the same level as the respondent	51	50	53
At a lower level than the respondent	20	7	0

* Percentages are rounded independently and may not total 100 percent.

group half the members talk most with someone at their own level in the organization, i.e., staff nurses talking with other staff nurses, practical nurses talking with other practical nurses, aides talking with other aides. One-fifth of the staff nurses talk most with someone at a lower organizational level than their own, and over a quarter talk with someone at a higher level in the organization than their own. Since aides and orderlies are at the bottom of the skill and status hierarchy of the nursing staff, they cannot talk with someone at a lower organizational level than their own; nearly half talk most either to the immediate superior or to someone else at a higher organizational level than theirs (presumably a staff nurse who may be "acting supervisor" though having no formal supervisory title). Practical nurses are between aides and staff nurses in skill and status. Their report as to the person with whom they talk most is also intermediate between staff nurses and aides, i.e., they are more likely than staff nurses and less likely than aides to talk most with someone at a higher level than their own in the organization.

Table IV-4 presented the distribution of responses for each skill group--staff nurses, practical nurses, and aides and orderlies--in all ten hospitals combined. If we consider each hospital separately, however, we find considerable variation from the general picture. Data from staff nurses, for example, show a range of from 0 percent to 21 percent who talk most with someone at a higher level who is not their immediate superior; a range of from 4 percent to 48 percent who talk most with their immediate superior; a range of from 24 percent to 70 percent who talk most with someone at the same level as their own; and

a range of from 3 percent to 36 percent who talk most with someone at a lower organizational level than their own.

The third hypothesis concerns the general pattern of horizontal and vertical communication in the nursing staff as it relates to the adequacy of nursing staff performance. It states that the relative amount of communication across organizational levels (proportion of nursing personnel talking most often with someone at a different organizational level from their own) will be positively related to adequacy of role performance among the nursing staff. The converse of the third hypothesis is that the proportion of nursing personnel talking most with someone at the same organizational level as their own (horizontal communication) will be negatively related to adequacy of role performance among the nursing staff.

Data relevant to the relation between the direction of communication among nursing personnel and their performance are presented in Table IV-5. Information from staff nurses and from aides and orderlies support the hypothesis. The seven measures of nursing staff performance are negatively related to the proportion of staff nurses who talk most with someone at their own organizational level, three of the correlation coefficients being significant at the .05 level. The proportion of staff nurses who talk most with someone at a lower organizational level than their own is positively correlated with the seven measures of nursing staff's role performance, two of the correlations being statistically signifiiciant at the .05 level and one significant at the .01 level. All seven measures of nursing staff performance also are negatively correlated with the proportion

TABLE IV-5. Relations between proportion of nursing personnel who talk most with someone at a given organizational level and aspects of nursing staff performance*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Organizational Level of the Person with Whom Nursing Personnel Talk Most		How Good A Job Aides Do	How Good A Job P.N.'s Do	How Good A Job R.N.'s Do	How Good A Job Head Nurses Do	How Good A Job Nursing Staff Does	Quality of Nursing Care	Quality of Overall Care
A higher organizational level (the immediate superior or someone else at a higher level)	I	.45	.43	.32	.26	-.13	.20	.10
	II	.46	.02	.21	-.28	.00	.10	-.08
	III	.32	.43	.72	.21	.78	.82	.71
A higher organizational level (Specifically, the immediate superior)	I	.45	.44	.39	.25	.06	.36	.36
	II	.03	-.22	-.04	-.45	-.07	-.06	-.10
	III	.19	.03	.24	.18	.48	.42	.48
The same organizational level (e.g., R.N.'s talking to other R.N.'s; aides talking to other aides)	I	-.69	-.58	-.56	-.47	-.16	-.47	-.35
	II	-.31	.10	.00	.32	.30	.12	.30
	III	-.32	-.43	-.72	-.21	-.78	-.82	-.71
A lower organizational level (e.g., R.N.'s talking to aides)	I	.80	.60	.66	.50	.25	.53	.40
	II	-.48	-.44	-.66	-.27	-.78	-.78	-.70
	III	--	--	--	--	--	--	--

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

of aides and orderlies who talk most with someone at their own organizational level, two of the correlation coefficients being statistically significant at the .05 level.

As with other findings we have discussed, data from practical nurses appear to contradict the pattern established by data from staff nurses and from aides and orderlies. Contrary to the pattern of negative correlations between nursing staff performance and the proportion of staff nurses and of aides who talk most with someone at their own level, six out of seven correlations are positive between nursing staff performance and the proportion of practical nurses who talk most to someone at their own organizational level. Whereas the proportion of staff nurses talking most with someone at a lower level bears a consistent positive relation to nursing staff performance, the proportion of practical nurses talking to someone at a lower level bears a consistent negative relation to nursing performance. Of seven negative correlations, two are significant at the .05 level and two are significant at the .01 level.

The hypothesis relating direction of communication to nursing performance is based on the assumption that communication serves to inform and to establish standards and shared expectations and that, therefore, high quality performance will be facilitated by a situation which brings the less skilled into contact with the more skilled. The data suggest that the vital communication nexus within the nursing staff is between the staff nurse and the aide or orderly. Because they have had no prior training in patient care, nor much experience in doing the types of chores demanded of them in the hospital, aides and orderlies require frequent communication with registered nurses. If

aides and orderlies talk most with other aides and orderlies, there is likely to be little opportunity for this group to become familiar with correct procedures or to internalize standards of performance.

Unlike the aides and orderlies, practical nurses have had training or experience which equips them for their job in the hospital. If they have had formal training, they have been taught proper procedures for nursing care and have developed some notion of professional ethics. If they have had practical but no formal training, they at least are familiar with the routines of patient care. It may be recalled from Chapter II that, as a group, practical nurses have worked longer in this hospital and longer at the present job than have either staff nurses or aides and orderlies. It may be assumed, then, that there is less need for socialization of practical nurses than of aides. Although practical nurses may be expected to be familiar with certain hospital and patient care routines and standards, they clearly have not had training comparable to that of the registered nurse. They have not been trained to evaluate the patients' condition nor to supervise other nursing personnel. Hence, they are considerably less likely than registered nurses to be able to offer appropriate direction to nursing personnel of lesser skill. If practical nurses have a high degree of communicative contact with aides and orderlies, it may be a sign that there are an insufficient number of staff nurses to handle the informal on-the-job supervision which generally must be accomplished if the work of various nursing personnel is to be coordinated. Thus, we would reformulate the hypothesis to read "the greater the proportion of staff nurses who talk most with someone at a lower organizational level than theirs, the better the performance of the nursing staff" and "the

greater the proportion of aides and orderlies who talk most with someone at a higher organizational level than theirs, the better the performance of the nursing staff."

On the basis of the findings discussed above, we may expect that other predictions also will have to be modified to account for the intermediate skill and status position of practical nurses. As originally stated, the hypothesis is, "The relative amount of communication across organizational levels within the nursing staff will be positively related to nursing staff. . .coordination and negatively related to tension between nursing classifications." The relevant data appear in Table IV-6.

As predicted, horizontal communication among staff nurses and among aides and orderlies is negatively related to nursing department coordination and positively related to tension between classifications. The complement of these relationships is that vertical communication of staff nurses and of aides and orderlies is positively correlated with nursing department coordination and negatively correlated with tension between classifications. These relationships are not statistically significant except for the negative correlation between aides' horizontal communication and nursing department coordination (rho = -.74) and its converse positive correlation between aides' upward communication and nursing department coordination. Obviously, these two correlations are expressions of the same thing, since by definition (and organizational structure) aides must talk either with someone at their own organizational level or with someone at a higher level. As for practical nurses, there is a statistically significant negative correlation between the proportion talking most with someone at a

TABLE IV-6. Relations between proportion of nursing personnel who talk most with someone at a given organizational level and nursing department coordination and tension between nursing classifications*

I Correlations based on data from staff nurses
II Correlations based on data from practical nurses
III Correlations based on data from aides and orderlies

Organizational Level of the Person with Whom Nursing Personnel Talk Most		Nursing Department Coordination	Tension Between Classifications
A higher organizational level (the immediate superior or someone else at a higher level)	I	.14	.00
	II	-.15	.57
	III	.74	-.38
A higher organizational level (specifically, the immediate superior)	I	.46	.04
	II	.07	.07
	III	.27	.01
The same organizational level (e.g., R.N.'s talking to other R.N.'s; aides talking to other aides)	I	-.14	.14
	II	.33	-.74
	III	-.74	.38
A lower organizational level (e.g., R.N.'s talking to aides)	I	.09	.03
	II	-.75	.38
	III	--	--

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than $\pm$.56 are significant at the .05 level, and those $\pm$.75 or larger are significant at the .01 level.

lower level than themselves and nursing department coordination. This finding is consistent with the negative relation between their downward communication and the adequacy of nursing performance. Data on tension suggest that practical nurses do best to communicate with other practical nurses rather than with persons either higher or lower in the organizational structure than themselves. Tension between nursing classifications is negatively related at the .05 level (rho = -.74) with the extent of horizontal communication among practical nurses.

Data from nursing personnel which show similar relationships between communication and integration phenomena among staff nurses and among aides and orderlies but which reveal a divergent pattern for practical nurses recall Simmel's observation about the middle element in a hierarchy. "... There is always some hostility or question of jurisdiction between contiguous elements of a hierarchy. The middle element, therefore, is often in conflict with both the higher and the lower ones. Common hostility unites the most divergent sectors, that cannot be unified by other means."[1] We have noted before the jurisdictional tension between staff nurses and practical nurses. Both are concerned with professional status--eager to secure to their own occupational group activities which are symbolic of professional status and to relinquish to those below them in the hierarchy activities which are non-professional and symbolic of the status of domestic servants. Practical nurses want more professional tasks and fewer menial ones; hence, they are in conflict with those above them concerning

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1. Georg Simmel, The Sociology of Georg Simmel, trans. Kurt H. Wolff (Glencoe, Illinois: The Free Press, 1950), p. 235.

the nursing tasks they may perform, e.g., giving treatments, administering medications. Often there is tension with those below them as well, the aides objecting to practical nurses' attempts to differentiate their positions from each other by giving aides the most unpleasant chores of nursing.

A factor tending to blur the status differential between staff nurses and practical nurses is that practical nurses typically are older than staff nurses and have worked in the hospital for a longer period of time. As a consequence, practical nurses may know as much as, if not more than, staff nurses about many aspects of the hospital's organization. In addition, their longer experience working with patients may sometimes give them judgment about nursing problems superior to that of better trained but less experienced R.N.'s. Thus, the legitimacy of the superior-subordinate relationship between R.N.'s and practical nurses is not always clearly demonstrated in the practical situation.

By contrast, in the role relationships of R.N.'s and aides the training and proper sphere of activity of each is unambiguously differentiated from the other--the legitimacy of their superior-subordinate relationship is not open to doubt. When a staff nurse directs an aide, when an aide assists a staff nurse, both shared work and differentiated work are parts of a mutual help relationship. The status of both R.N. and aide is enhanced by their working together, the nurse demonstrating her expertise and willingness to work closely with a lower status person, the aide being complemented by the nurse's reliance on her help.

The difficulties engendered by the ambiguity of the status differential between staff nurses and practical nurses may be analogous

to that found in the relationships between psychiatrists and clinical psychologists as documented by Zander, Stotland, and Cohen.[2] The comparatively freer communication and more amicable relationship between R.N.'s and aides suggested by the data appear similar to those between psychiatrists and psychiatric social workers. Psychiatrists value psychologists more than they value psychiatric social workers, and both psychologists and social workers value psychiatrists, but the closer and more comfortable relationships are between psychiatrists and social workers. Zander and his colleagues observe: "We assume that psychologists have a stronger desire for increased stature than do social workers. This desire is recognized by psychiatrists as a challenge. Psychologists sense the feelings of psychiatrists and, as a result, are uneasy as to whether their needs will be understood and supported."[3] Similarly, we find that R.N.'s value practical nurses more than they value aides,[4] and both practical nurses and aides value R.N.'s, but the data suggest (we have no direct information on this point) that the closer and more comfortable relationships may be between R.N.'s and aides.

Summary

In this chapter we have examined data concerning the relation between vertical communication among nursing personnel and the normative,

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2. Alvin Zander, Arthur R. Cohen, and Ezra Stotland, Role Relations in the Mental Health Professions (Ann Arbor: Institute for Social Research, 1957).

3. Ibid., p. 123.

4. Assessments of the job done by R.N.'s, P.N.'s, and aides as perceived by each group are discussed in Chapter V, below.

functional, and communicative integration of the nursing staff. We hypothesized that predominance of vertical communication which establishes links between specialized groups would bear a positive relation to nursing staff performance, coordination, and lack of tension. The findings for two groups in the nursing department--staff nurses and aides--support the hypotheses. Findings for an intermediate skill and status group--practical nurses--do not support the hypotheses, however.

The divergent findings for the middle group in the hierarchy have been interpreted in terms of that group's organizational function and the status aspirations of its members. Although practical nurses have gone through a training program which has established standards of performance, a set of skills, and familiarity with hospital routines, they probably have not had sufficient professional training to permit them to serve as effective socializing agents for the non-trained, unskilled occupational group below them, the aides and orderlies. In addition, the fact that practical nurses have not had extensive professional training and that their nursing activities are not highly differentiated from those of aides, may make it impractical and even a source of conflict for them to have close working relations with aides. At the same time, the growing desire for a degree of professional status among practical nurses puts them in competition with R.N.'s--a situation which is reflected in jurisdictional disputes regarding the nursing activities which R.N.'s and practical nurses may perform.

Vertical communication which links staff nurses to aides and orderlies appears to make a contribution to nursing staff integration. Registered nurses may be standards-setters and socializing agents for these novices, training aides to perform adequately and to become contributing members of the nursing team. Vertical communication linking practical nurses to those above and below them in the organizational hierarchy, on the other hand, appears either to make no contribution or to jeopardize nursing staff integration. Buffers rather than facilitators for communication may be needed by this middle-status group in the nursing team.

CHAPTER V

COMMUNICATION PATTERNS AMONG STAFF NURSES

Our interest in the association between communication patterns and other aspects of interaction and role performance in a large organization has two aspects: one, the impact of the quantity and quality of supervisors' communication on their interpersonal relationships with subordinates, and, two, the impact of the flow of communication within an internally differentiated work group on that group's ability to perform its organizational function. In Chapter III data were presented which show the relation between qualitative aspects of superiors' communication and the way that subordinates assess supervisory role performance and the extent to which communication of the subordinates is concentrated in the channel between themselves and superiors. In Chapter IV data were presented which show the relation between the nursing staff's performance of its organizational functions and three characteristics of communication among nursing personnel: the amount of communication with superiors, the relative concentration of task-relevant communication in the channel between superiors and subordinates, and the extent of vertical (across organizational levels) as against horizontal (within the same organizational level) communication among nursing personnel.

In general, the data support the theoretical orientation which was set out in Chapter I. Those which lend strongest support to our hypothesis are data from registered nurses. Data from aides and orderlies are generally consistent with the hypotheses, though the

magnitude of correlations between communication and other variables is less than that found in the data from staff nurses. Our data from practical nurses often fail to lend support to the hypotheses and occasionally contradict them. Differences among these three groups of nursing personnel have been attributed to differences in the tasks and organizational responsibility and status characteristics of their occupational roles. Differences have been attributed, also, to initial disparities in education, experience, and orientation toward the job among these role occupants.

In Chapter IV we noted the consistent set of negative correlations between seven different measures of the adequacy of nursing staff performance and the extent to which staff nurses and aides and orderlies talk most with someone at their own organizational level rather than with someone at a different level. It was suggested that the staff nurse's professional training and responsibility for good patient care make it imperative that she have good working relationships and frequent communication with less skilled members of the nursing team--particularly aides and orderlies, since they have no formal training for their part in patient care and can learn standards and procedures only to the extent that they are taught them on the job.

Additional support for the assertion that staff nurses play a central role in the provision of good nursing care is found in information from the three nursing groups and from two groups of doctors concerning the association between their assessment of the quality of nursing care given in the hospital and their evaluation of how good a job different nursing classifications are doing. Table V-1, below, shows that there is a statistically significant positive correlation

TABLE V-1. Relation between the performance of different nursing classifications and the quality of nursing care, as seen by three groups of nursing personnel*

Relationship Between Perceived Quality of Nursing Care and Perceptions of	How Good a Job is Done By:				
Evaluation of Both Variables by:	Nursing Supervisors	Head Nurses	R.N.'s	P.N.'s	Aides
Staff Nurses	.39	.69	.87	.73	.75
Practical Nurses	.46	.78	.65	.67	.44
Aides and Orderlies	.47	.81	.79	.13	.07

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level and those ±.75 or larger are significant at the .01 level.

between staff nurses' assessment of the quality of nursing care given in the hospital and their evaluation of how good a job is being done by head nurses, by R.N.'s, by P.N.'s, and by aides. As seen by practical nurses, there is a statistically significant positive correlation between assessment of the quality of nursing care and evaluation of how good a job is being done by head nurses, by R.N.'s, and by P.N.'s. As seen by aides and orderlies, there is a statistically significant positive correlation between assessment of the quality of nursing care and evaluation of how good a job is being done by head nurses and by R.N.'s. It is, perhaps, indicative of their lack of confidence in their own ability or the ability of P.N.'s to contribute to patient care that there is no correlation at all between aides and orderlies' assessment of the quality of nursing care and their evaluation of P.N.'s or of aides' performance. Conversely, it may be indicative of the practical nurses' affirmation of their professional contribution to nursing that the magnitude of correlations is the same between their assessment of the quality of nursing care and their evaluation of the performance of R.N.'s and P.N.'s.

Data (not presented here) from two groups of doctors (members of the general medical staff and members of the important medical staff committees) show that their assessments of the quality of nursing care and of how good a job the nursing staff is doing both are highly correlated with their evaluations of the performance of R.N.'s and are less highly correlated with their evaluations of the performance of other levels of nursing personnel. As a matter of fact, data from doctors show a higher correlation between the job R.N.'s do and the quality of over-all patient care given in the hospital than between

the job the medical staff does and the quality of over-all patient care given in the hospital. There is agreement, then, about the primacy of the registered nurse in the hospital's provision of patient care.

Because of the importance of the R. N. in the nursing staff, we will devote this chapter to an examination of data from the staff nurse group alone, tracing the association between communication patterns of staff nurses and their role in the nursing team.

We see the staff nurse to be the critical coordinating, standard-setting, information-giving link between supervisory nursing personnel and auxiliary nursing personnel. Although the nursing supervisor and head nurse plan and assign the work and handle innumerable administrative details, it is the staff nurse who often must see that the work plan is properly implemented, who often is acting supervisor of less skilled members of the nursing staff. If she is to perform her organizational role effectively, the staff nurse must receive relevant information and support from her own supervisor and, in turn, give to her supervisor information relevant to the nursing task. In addition, the staff nurse must have sufficient commitment to or solidarity with other members of the work group so that she can transmit and interpret information relevant to their performance.

In this chapter we shall look at the relationship of quantitative and qualitative characteristics of communication in the vertical channels to staff nurses' consensus (similarity of response) and commitment to their work group. Our theory points to a close interrelation among frequency of communication, attraction, and similarity of attitudes. The functional organization and physical arrangement of the hospital preclude frequent communication among members of a nursing skill group

as a whole, e.g., among staff nurses on different shifts or in different nursing divisions such as surgery, obstetrics-gynecology, or pediatrics. Thus, if there is similarity of attitudes among staff nurses, it is more likely to occur because of their getting information from the same source (supervisory nursing personnel) than from their having talked to other staff nurses. Since the nursing work group is usually made up of members from different skill levels, commitment to it is more likely to be associated with a high degree of vertical communication than with frequent communication of staff nurses with other staff nurses. Thus, our hypotheses predict a positive relation between the extent to which vertical communication is facilitated and the degree of consensus and commitment to the work group found among staff nurses. The specific hypotheses follow:

1. The extent to which subordinates perceive their superiors' communication to be facilitative (giving task leadership or socioemotional support) will be positively related to consensus among nurses.

2. The frequency with which nurses talk with their superiors will be positively related to consensus among nurses.

3. Concentration of task-relevant communication in formal channels will be positively related to consensus among nurses.

4. The relative amount of communication of nurses with persons at other organizational levels will be positively related to consensus among nurses.

5. The extent to which subordinates perceive their superiors' communication to be facilitative will be positively related to commitment to their work group.

6. The frequency with which nurses talk with their superiors will be positively related to commitment to their work group.

7. Concentration of task-relevant communication in formal channels will be positively related to nurses' commitment to their work group.

8. The relative amount of communication of nurses with persons at other organizational levels will be positively related to nurses' commitment to their work group.

The indicator used as a measure of varying degrees of consensus is the reciprocal of the variance of the distribution of staff nurses' responses in each of ten hospitals to questions about relations within the nursing staff, relations between the nursing and medical staffs, and the quality of care given in the hospital. The questions all involve an evaluation of organizational conditions about which the supervisory staff, presumably, would have more information than would the staff nurses. The reciprocal of the variance was computed for each of the following questions:

> On the whole, would you say that in this hospital there is some tension or conflict (friction) between the two groups in each of the following pairs? (Check one for every pair of groups)
>
> Nursing Personnel in one shift and Nursing Personnel in another shift
>
> Nursing Personnel in one classification and Nursing Personnel in another classification
>
> [Response categories for the question above were (1) "A very great deal of tension," (2) "A great deal of tension," (3) "Some tension," (4) "A little tension," and (5) "No tension at all"]
>
> On the whole, to what extent does the nursing staff understand and appreciate the work problems and needs of the medical staff? (Check one)
>
> ____(1) They have an excellent understanding
> ____(2) A very good understanding
> ____(3) A good understanding
> ____(4) A fair understanding
> ____(5) They have a rather poor understanding
>
> To what extent does the medical staff understand and appreciate the work problems and needs of the nursing staff? (Check one)
>
> [Response categories the same as for the question above.]

Variances were computed also for questions concerning the quality of nursing care, medical care, and over-all care given in the hospital, as well as for the following question about the comparative quality of care:

> How would you rate the quality of <u>over-all patient care</u> in this hospital as compared to similar community general hospitals? (Check one)
>
> ____(1) Over-all patient care in this hospital is outstanding compared to most other hospitals of this kind
> ____(2) Much better
> ____(3) Generally better
> ____(4) About the same
> ____(5) Somewhat poorer
> ____(6) Generally poorer
> ____(7) Over-all patient care in this hospital is much poorer than in most other hospitals of this kind

In Chapter III it was shown that the concentration of task-relevant communication of staff nurses in the channel between them and their supervisors is positively related to the facilitativeness of the superiors' style of communication. As shown in Table V-2, consensus among staff nurses about selected aspects of hospital functioning also is related to the facilitativeness of the superiors' communication. Looking at the association between consensus and "facilitative" communicative acts, we find 29 out of 32 correlations with the predicted sign, although only 5 are statistically significant. The other section of the table, indicating the association between non-facilitative communicative acts and consensus, shows only 14 out of 24 correlations with the predicted sign, 3 of them statistically significant at the .05 level or better.

TABLE V-2. Relations between qualitative characteristics of superiors' communication and similarity of response among staff nurses*

Characteristics of Communication from Immediate Superior	Similarity of Response Regarding: Tension between nursing shifts	Tension among classifications	Nursing staff understands medical staff	Medical staff understands nursing staff	Quality of nursing care	Quality of medical care	Quality of over-all care	Quality of over-all care, compared to other hospitals
"Facilitative"								
Explains, gives information, suggestions	.60	.42	.05	.39	.36	.25	.32	.14
Asks for information, explanation, clarification	.50	.49	.29	.50	.34	.09	.19	.07
Asks for suggestions or opinions	.74	.67	.48	.34	.10	-.16	-.24	.02
Expresses appreciation	.57	.60	.43	.42	-.08	.02	.16	.20
"Non-facilitative"								
Gives orders, directions	-.03	-.37	-.54	-.36	.18	.29	.19	-.32
Gives excess, unnecessary information or comments	.33	.14	-.24	.12	-.42	-.23	-.37	.02
Criticizes, refuses help, is unnecessarily formal	.13	.07	-.04	.06	-.65	-.65	-.71	-.32

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level and those ±.75 or larger are significant at the .01 level.

Data concerning the second hypothesis are found in Table V-3. Here we find 32 out of 40 correlation coefficients in the predicted direction and seven being statistically significant at the .05 level. The evidence supports our hypothesis that the more nurses talk with their superiors the more likely they are to have common evaluations of the degree of tension within the nursing staff, the amount of understanding between nursing and medical staffs, and the quality of nursing, medical, and over-all care given in the hospital.

The third hypothesis relates the concentration of communication in vertical channels to consensus. Table V-4 shows 29 out of 32 correlations in the predicted direction, four of them significant at the .05 level.

The facilitativeness of the superiors' communication, the amount of communication with superiors, and the concentration of communication in the channel between superiors and subordinates are all indicators of the strength of the communicative link between staff nurses and their supervisors. We predicted that these three communication variables would be related to consensus because of the assumption that the stronger this communicative link in the nursing department, the more likely that staff nurses would receive information from a common source (supervisory nurses) relevant to forming their assessment of tension among nursing personnel, understanding between nursing and medical staffs, and the quality of care. The three hypotheses based on this reasoning are supported by the pattern of correlations found in the data.

The prediction that consensus will be associated with the relative amount of cross-level communication is an extension of the prediction about the vertical link between staff nurses and their supervisors

TABLE V-3. Relations between quantity of communication of staff nurses with their superiors and similarity of response among staff nurses*

Quantity of Communication with Superior	Similarity of Response Regarding: Tension between nursing shifts	Tension among classifications	Nursing staff understands medical staff	Medical staff understands nursing staff	Quality of nursing care	Quality of medical care	Quality of over-all care	Quality of over-all care, compared to other hospitals
Average amount of time talked	.29	.40	.61	-.21	-.30	-.22	.08	.69
Frequency talk about work	.29	.48	.59	.13	.08	.37	.38	.65
Frequency about patient care	.59	.43	.43	-.18	.29	.42	-.37	.02
Frequency about nursing supervision	.74	.54	.39	.25	.10	-.14	-.17	.02
Frequency about things outside hospital	.25	.65	.50	.62	.19	.10	-.16	.33

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level and those ±.75 or larger are significant at the .01 level.

TABLE V-4. Relations between concentration of communication in the channel between staff nurses and their superiors and similarity of responses among staff nurses*

Frequency of Talking with Superior Relative to Most-talked-to Person About	Similarity of Response Regarding: Tension between nursing shifts	Tension among classifications	Nursing staff understands medical staff	Medical staff understands nursing staff	Quality of nursing care	Quality of medical care	Quality of over-all care	Quality of over-all care, compared to other hospitals
Work	.14	.39	.51	.44	.07	.36	.27	.34
Patient Care	.55	.48	.68	.20	.45	.28	.20	.30
Nursing Supervision	.56	.37	.35	.13	.47	.38	.26	.35
Things outside the hospital	.43	.59	.31	.70	.42	-.09	-.27	-.03

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than $\pm$.56 are significant at the .05 level and those $\pm$.75 or larger are significant at the .01 level.

to vertical communication generally. There is no reason to expect that the predominance of vertical communication will be associated with consensus among nurses unless it is dependent upon a strong link between staff nurses and their superiors. As shown in Table V-5, the relative amount of communication of nurses with persons at other organizational levels is not related positively to consensus--18 out of 24 correlations are negative. Nor does the reverse of the hypothesis receive any better support.

The fifth hypothesis predicts that the facilitativeness of the superior's communication will be positively related to nurses' commitment to their work group. The data in Table V-6 lend support to the hypothesis, as well as giving weak but consistent support to its complement--that the superiors' non-facilitative communication will be negatively related to nurses' commitment to their work group. The more frequently superiors explain or give information, the more they ask for information or explanation, the more they ask for suggestions or opinions, the more they express appreciation, the more likely nurses are to indicate commitment to their work group. A circular connection between the superiors' communication and nurses' commitment is probable. Superiors who communicate in a facilitative manner will enhance the effective functioning of the work group, and an effectively functioning work group is likely to receive facilitative communication.

The hypothesis and data discussed above are interpreted under the assumption that staff nurses are task-oriented and that their commitment to the work group is related to the work group's ability to perform well, which is in turn influenced by the supervisor's interest and help. This view of the relation between facilitativeness of the

TABLE V-5. Relations between proportion of staff nurses who talk most with someone at a given organizational level and similarity of response*

Organizational level of the Person with Whom Staff Nurses Talk Most	Similarity of Response Regarding: Tension between nursing shifts	Tension among classifications	Nursing staff understands medical staff	Medical staff understands nursing staff	Quality of nursing care	Quality of medical care	Quality of over-all care	Quality of over-all care, compared to other hospitals
A higher organizational level (the immediate superior or someone else at a higher level)	.25	-.33	.10	.09	-.09	-.35	-.16	-.27
A higher level (specifically, the immediate superior)	.08	-.49	-.06	-.05	.44	-.01	-.06	-.32
The same organizational level (R.N.'s talking to other R.N.'s)	-.02	.29	-.44	.00	.22	.47	.16	.18
A lower organizational level (e.g., R.N.'s talking to aides)	-.06	-.13	.52	-.03	-.26	-.30	-.20	-.23

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than $\pm$.56 are significant at the .05 level and those $\pm$.75 or larger are significant at the .01 level.

TABLE V-6. Relations between qualitative characteristics of superiors' communication and staff nurses' commitment to the work group and team that treats patients*

Characteristics of Communication from Immediate Superior	Staff Nurses' Commitment	
	To Immediate Work Group	To Team that Treats Patients
"Facilitative"		
Explains, gives information, suggestions	.30	.02
Asks for information, explanation, clarification	.44	.27
Asks for suggestions or opinions	.68	.63
Expresses appreciation	.13	.14
"Non-facilitative"		
Gives orders, directions	-.03	-.41
Gives excess, unnecessary information or comments	-.34	-.08
Criticizes, refuses help, is unnecessarily formal	-.04	-.08

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than $\pm$.56 are significant at the .05 level and those $\pm$.75 or larger are significant at the .01 level.

supervisor and commitment to the work group is counter to Simmel's hypothesis that "in general, common enmity is one of the most powerful means for motivating a number of individuals to cling together. This common enmity is intensified if the common adversary is at the same time the common ruler."[1]

The sixth hypothesis relates the frequency of communication between nurses and their superiors to nurses' commitment to the work group. In Table V-7 are shown positive correlations of nurses' commitment to the immediate work group and the team that treats the patients with (1) the average amount of time they talk to their superiors and (2) the frequency with which they talk about work, about patient care, about nursing supervision, and about things outside the hospital. Four of the ten correlation coefficients are statistically significant at the .05 level.

Hospitals in which staff nurses talk frequently with their immediate superiors are hospitals in which staff nurses feel committed to their immediate work group and the team that treats the patient.

Concentration of task-relevant communication in the formal channels has been taken as a sign that the formal organization handles task problems adequately. The prediction that commitment to or identification with the work group will be positively related to the concentration of nurses' communication in formal channels is based on the assumption that staff nurses' solidarity with the work group depends on how effectively it performs its task. If the joint task concerns of staff nurses and their superiors are adequately handled in the communication channels

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1. Simmel, op. cit., p. 193.

TABLE V-7. Relations between quantitative aspects of communication with superior and staff nurses' commitment to the work group and team that treats patients*

Staff Nurses' Communication with Immediate Superior	Staff Nurses' Commitment	
	To Immediate Work Group	To Team that Treats Patients
Quantity		
Average amount of time talked	.38	.35
Frequency talk about work	.17	.28
Frequency talk about patient care	.61	.66
Frequency talk about nursing supervision	.71	.62
Frequency talk about things outside the hospital	.35	.30

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level and those ±.75 or larger are significant at the .01 level.

between them, presumably conditions are favorable for the work group's accomplishment, hence staff nurses will feel identified with or committed to the work group. Table V-8 presents the relevant data.

While the data in Table V-8 do not give consistent support to the hypothesis as stated, the pattern of correlations is suggestive. It will be noted that the six correlations in the predicted direction are between commitment and those particular topics of communication about which staff nurses and their R.N. supervisors are most likely to have common interests. "Ways to improve nursing supervision" and "Ways to improve patient care" are presumably joint interests of the staff nurse and her supervisor and are less appropriately discussed in other channels. Given their similarity of backgrounds, it is reasonable to assume that R.N.'s in staff nurse and supervisory positions would also talk about things outside the hospital in the absence of blocks to this sort of communication. "Improvement of work relations between departments" and the general topic, "work," on the other hand, may be of less mutual interest to staff nurses and their superiors and also may be less indicative of the strength of the communicative link between them than are the other three topics.

The final hypothesis to be discussed in this chapter predicts a negative relation between nurses' commitment to the work group and the proportion who talk most with someone at their own organizational level. The work groups of which staff nurses are part are composed of nursing personnel from different levels: registered nurses, practical nurses, and aides. Sometimes the work group is headed by a supervisory nurse but often the staff nurse is an acting supervisor. It would seem an indication of group solidarity for staff nurses to talk most with persons at different levels in the team. Conversely, if staff nurses

TABLE V-8. Relations between the frequency of talking with superiors relative to talking with most-talked-to persons and staff nurses' commitment to the work group and team that treats patients*

Frequency of Talking to Superior Relative to Talking with Most-talked-to Person About:	Staff Nurses' Commitment	
	To Immediate Work Group	To Team that Treats Patients
Ways to improve nursing supervision	.45	.39
Ways to improve patient care	.33	.04
Work (not further specified)	-.44	-.25
Ways to improve work relations between departments	-.39	-.20
Things outside the hospital	.59	.42

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level and those ±.75 or larger are significant at the .01 level.

talk most to other staff nurses, it may tend to emphasize scalar and functional differences between them and the other members of the team to the detriment of unified action.

The data show a negative correlation between nurses' talking most to someone at their own organizational level and their commitment. A firm positive correlation is shown between their commitment and their talking most to someone at a lower level of the organization than their own. It will be recalled that in Chapter IV, Table IV-5, we saw the consistent negative relation between the proportion of staff nurses talking most with someone at their own level and seven measures of nursing staff performance. If we think of the adequacy of nursing staff performance as an indicator of the nursing staff's normative integration and of the nurses' commitment to their work group as an indicator of their communicative integration, we find strong support for the assertion that the nonsupervisory registered nurse's relation to auxiliary nursing personnel is one of the most crucial for insuring nursing staff integration. The significance of the staff nurse's role will receive more attention in the next, the concluding chapter.

TABLE V-9. Relation between proportion of staff nurses who talk most with someone at a given organizational level and nurses' commitment to the work group and team that treats patients*

Organizational Level of the Person with Whom Staff Nurses Talk Most	Staff Nurses' Commitment	
	To Immediate Work Group	To Team that Treats Patients
A higher organizational level (the immediate superior or someone else at a higher level)	.32	.55
A higher organizational level (specifically, the immediate superior)	.29	.42
The same organizational level (R.N.'s talk most to other R.N.'s)	-.32	-.65
A lower organizational level (e.g., R.N.'s talk most to aides)	.52	.57

* All figures are rank-order correlation coefficients based on an N of 10 hospitals in each case. Coefficients larger than ±.56 are significant at the .05 level, and those ±.75 or larger are significant at the .01 level.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The study of informal organization within bureaucratic settings has been important to the understanding of organizational life. Yet the intriguing effects of primary group relations in the workplace, the study of informal communication networks, the examination of the non- or anti-organizational orientation of workers, the emphasis on the needs of the "inner man" for recognition and social support have sometimes tended to obscure important structural and functional characteristics of large organizations and their systems of formal role relationships. The formal, rational requirements of a complex social system of differentiated functions and hierarchies of authority, responsibility, and skill frequently have been accorded a less important place than they deserve in the study of bureaucracies. Concomitant with this tendency has been a tendency to generalize uncritically from data about workers in one organizational setting to predictions of the behavior of workers in markedly different settings.

The present study emphasizes the formal organization of work, the formal requirements of the supervisor's role, the coordinative links established by means of communication up and down the line organization. For purposes of this analysis, the personal interaction between superiors and subordinates is significant to the extent that it either facilitates or inhibits the flow of relevant information through formally prescribed communication channels. This dissertation is concerned with the proposition that an organization of differentiated

parts must have a means for tying parts together so that they are mutually complementary rather than conflicting. It affirms that communication between incumbents of interdependent roles in the organization is an important means for binding them together, for limiting the divisive or centrifugal effects of a complex division of labor.

The responsibility and authority for facilitating the work and coordinating the activities of subgroups within the organization is allocated to supervisory personnel. If supervisors are to plan and make wise decisions they must exchange work-relevant information with the people who execute their plans and decisions. If subordinates are to give relevant information to the superior and receive relevant information from him, their relationship must be mutually secure and nonthreatening, otherwise either or both may withhold or distort information because of not knowing that it would be useful or because of fearing that it would be used in a punishing way.

In the third chapter we presented data which show that the frequency with which nursing supervisors employ "facilitative" communication tends to be associated with their subordinates' positive evaluation of the adequacy of the supervisors' role performance. As a specific example, the frequency with which superiors give information or explanation is highly related to their subordinates' judgment that the superiors are good at planning and organizing, that they do things which are right for one in their position, and that they are expert. The high relation between superiors' role performance and the extent to which they give information and suggestion is found in data from all three nursing groups.

Other specific qualities of superiors' communication also are related to subordinates' assessment of their role performance. For staff nurses, high positive correlations exist between role performance and the frequency with which superiors ask for information, ask for suggestions or opinions, and express appreciation. Although data from practical nurses and from aides and orderlies do not actually contradict the general pattern shown in data from the R.N.'s, the relationships are not so clear and consistent. For example, there is either no correlation or a negative correlation between aides and orderlies' perceptions of the frequency with which the superior asks for suggestions or opinions and their assessment of her performance. This raises the question of how the "meaning" of communicative acts may vary systematically according to the role relationship of the participants.

Perhaps to be asked by someone of slightly higher status or skill for an opinion or suggestion is to have one's competence affirmed, whereas to be asked by someone of markedly higher status or skill for an opinion or suggestion is to have one's lack of competence highlighted. Requests for opinion and suggestion indicate that the person from whom they are requested has criteria for evaluating situations and selecting alternatives, and they suggest that he apply these criteria by participating in planning or decision-making. If he participates in planning and decision-making, he also participates in responsibility for the product. In the absence of training or experience to serve as a basis for evaluation, people may resent requests for opinion and suggestion because they imply greater responsibility for outcomes than they are willing or able to take. Such requests may be seen as demonstrations

of pseudo-democracy or as superiors' attempts to evade accountability for situations which they have authority to control.

Differences between skill groups were shown, also, in data concerning "non-facilitative" communication from the superior. Thus, while data from practical nurses and from aides and orderlies show high negative correlations between the extent to which the superiors criticize or withhold help and subordinates' assessment of their role performance, data from staff nurses do not show negative correlations between these variables. It appears that staff nurses, similar in experience and training to their superiors, are not as threatened by criticism as are nursing personnel of less skill and status. Since they have internalized professional criteria for evaluating nursing performance, registered nurses have greater independence of judgment about their own work than do nursing personnel with less training.

The second relationship tested by data presented in Chapter III is that between the facilitativeness or non-facilitativeness of superiors' communication and the relative concentration in the formal channels of subordinates' communication about work topics. As predicted, the more that superiors communicate in ways which their subordinates consider appropriate to the supervisory role, the more likely subordinates are to talk about task-relevant topics with the superior rather than with another person. In the discussion of these data, we noted the difference in what constitutes "task-relevant" communication for different skill groups in the organization. It was pointed out that "ways to improve patient care" is a highly relevant topic to registered nurses but may be considerably less so for aides.

Chapter IV concerned the relation between vertical communication among nursing personnel and their role performance, coordination, and intragroup tension. The relative concentration of task-relevant communication in the channel between superiors and subordinates was shown to be positively related to seven measures of nursing staff performance. Communication in that formal channel was shown to be positively related to nursing staff coordination and negatively related to tension between nursing classifications. In addition, communication by staff nurses with someone at a lower organizational level than their own was shown to be positively related to nursing staff performance and nursing staff coordination. Our interpretation of these findings is that the staff nurse is the important communicative link between supervisory nursing personnel and members of the auxiliary nursing staff. Staff nurses must have a clear communication channel up to their own immediate superior but must also have a clear communication channel down to the aides whose work they must oversee.

Affirming the crucial importance of the staff nurse role as a communication-coordination nexus for linking professionally trained nursing personnel with those of lower skill and little training, we examined data from the staff nurse group in Chapter V. Here we reviewed data relating staff nurses' communication with superiors both to consensus among staff nurses and to staff nurses' commitment to the work group. We found consensus among staff nurses to be positively related to the facilitativeness of the superiors' communication, the frequency with which they talk to superiors, and the relative concentration of their task-relevant communication in the channel between themselves and

superiors. The more free the flow of communication between supervisors and subordinates in a subgroup, the more likely it is that subgroup members will share information and evaluations about the subgroups' performance and its internal and external relations.

Commitment of staff nurses to their immediate work group and to the team that treats patients was shown to be positively related to the facilitativeness of the superiors' communication, the frequency with which they talk to superiors, and the extent to which the persons they talk with most are at a different organizational level from their own. These relationships were predicted and explained on the basis that the nursing work group and the team that treats patients are internally differentiated. The staff nurses' commitment to such a group is an indication of the group's cohesiveness which, in turn, is seen to be facilitated by frequent communication across skill and status levels.

In studying the relation between communication patterns in a department of a complex organization (the nursing department of the community general hospital) and that department's unity or integration, we have assumed that integration has many aspects. We have selected several indicators of it: the extent to which members of the group perform according to expectations (how good a job is done by supervisors, by R.N.'s, P.N.'s, aides); the extent to which the department as a whole produces what it is intended to produce for the organization (what is the quality of nursing care); the adequacy of the department's coordination; the absence of conflict or tension among its members; and the commitment of a professionally trained group to the group or team in which they work. Using these measures of integration, we have examined their relation to communication patterns among members of the nursing staff, notably, communication between members at different levels of skill

and authority. Our data show that in hospitals where the nursing staff's performance is rated high, where nursing care is thought to be very good, where nursing staff coordination is considered good, where there is little report of tension between nursing classifications, and where staff nurses are committed to their work group, the following communication patterns prevail:

1. Supervisors' communication is considered "adequate" by their subordinates, who report that their superiors frequently give information and explain things and seldom criticize or withhold help.

2. Both the style and topics of superiors' communication suggest a concern with anticipating, preventing, or resolving problems arising in the work situation and affecting patient care. In addition, they indicate attention to the maintenance needs of the group.

3. Work-relevant communication is concentrated in the formal channel between superiors and subordinates.

4. There is a relatively high degree of communication between staff nurses and persons at lower organizational levels and between aides and orderlies and persons at higher organizational levels. Presumably, the most important communication link here is between the staff nurse and the aide.

Some General Observations

By keeping separate the data from three groups of nursing personnel--staff nurses, practical nurses, and aides and orderlies--we have three independent tests of each hypothesis. In a number of instances, this procedure has drawn our attention to important differences among these three roles in the nursing staff. The three groups concur in giving high ratings on role performance to supervisors who frequently give information and explain. This finding emphasizes the need for further exploration of the teaching and socializing function of the supervisor. It suggests the importance workers attach to having superiors show them how they can perform their role according to

expectations. Of course this finding, accompanied by the lesser value attached to the superior's requests for the subordinate's opinions and suggestions, might be interpreted as an indication that nursing personnel are authoritarians who want to be told what to do. Before this interpretation is accepted, however, careful thought needs to be given the nature and significance of nursing personnel's work in relation to their means for coping with it.

Considering the significance and delicacy of their "product"--patients and their lives and health--nursing departments have a relatively low degree of mechanization, precision, and technical skill. Compare, for example, the measurement of components, the calculation of tolerances, the precision of instruments, and the specialized training of personnel in a machine designing and drafting shop with those found in a nursing department. Perhaps it would require blind faith in the efficacy of tender, loving care for nursing personnel not to desire careful instruction and clarity of responsibility. Given the short supply of trained personnel, the frequent necessity of deviating from routines in emergency situations, the impossibility of tolerating postponement or delay in some aspects of patient care, the serious consequences of failures in coordination, the magnitude of responsibility for the patient borne by the nursing staff, it is understandable that enthusiasm for equalitarian supervision is limited.

In addition to the general question of how the organization's objectives may affect the style of supervision which is most appropriate, the low correlations between ratings made by P.N.'s and by aides and orderlies of the superiors' role performance and the extent to which they ask for suggestions or opinions also indicate a need for

better understanding of the effects of "equalitarian" supervision where skill and authority are very unequal. In a relationship of peers who have like amounts of status, authority, and skill, the sharing of ideas and opinions is a demonstration of solidarity. In a relationship of superior to subordinate, on the other hand, requests for the subordinate's opinions and suggestions about some topics may be perceived as an indication of the supervisor's incompetence or as a test of the subordinate's competence, or as an illegitimate attempt by the supervisor to pass the buck—to give responsibility where there is insufficient authority or protection. There is need for further research to clarify how different degrees of skill, status, and authority on the part of the supervisor and the subordinate affect their role relationship.

Concerning the nursing departments of general hospitals, we have found that it is not the quantity of communication with superiors nor the quantity of communication with most-talked-to persons which relates most consistently to measures of integration. Rather, it is the quantity of communication with superiors relative to the quantity of communication with most-talked-to persons which relates to integration. This finding points to the need for a critical evaluation not only of insufficient communication but also of excessive communication in an organization. The distinction made by Jacques between adaptive segregation of information and maladaptive segmentation is most appropriate here.

In interpreting the association between measures of integration and the concentration of communication in vertical channels, we referred to the specific organization of the nursing staff. In other organizations, having different functional relationships among personnel, our findings with regard to communication patterns might well be different.

Consider the task and group maintenance functions of communication. Communication among peers may be essential where solution of task problems depends on the pooling, evaluating, and recombining of ideas or the generation of concepts. Communication among peers may be essential to group maintenance where the work is with inanimate objects and the principal source of socioemotional gratification is the relation with co-workers.

Nursing activities do not depend on intellectualizing--the task communication of nursing personnel is predominantly the exchange of information. Unlike most office and factory workers, nursing personnel can derive a good deal of satisfaction from their association with the product itself--the patient and his health. For R.N.'s it is not only accepted but often required that they talk frequently with patients--and the more time they talk with other R.N.'s, the less time there is for talking with patients. Hence, the lateral flow of communication among nursing personnel is generally not relevant to or facilitative of their integration. If we were to study another type of organization, however, we might find communication among peers of primary significance for solidarity.

Finally, the clear relation between the performance of registered nurses and organizational outcomes, as compared with the ambiguous relation between the performance of auxiliary nursing personnel and organizational outcomes draws attention to the importance of skill as an organizational resource. The communication patterns which we have found to be associated with integration also are associated with high ratios of registered nurses to other nursing personnel. Conversely, the communication patterns which we have found to be associated with low

integration also are associated with high ratios of aides and orderlies to more skilled nursing personnel. In nursing departments where there are comparatively more R.N.'s and fewer aides, the opportunities for staff nurses to instruct and to guide the work of aides are comparatively greater. Thus, the integrative effects of communication and of the organization's skill resources are intertwined.

For the social scientist interested in studying complex organizations, these findings raise the question of whether data from production workers actually are very revealing of organizational processes. Happily for his research interests, the social scientist has accumulated more prestige and more dollars for research than once were available to him, and access to organizations and the role incumbents whose behavior will best illuminate his research problems is increasingly available.

Returning to Durkheim's hypothesis that regular and frequent interaction contributes to integration, we contend that "it depends"--on the objectives of the organization; its resources of time, skill, and technology; the nature of the functional relationship between given members of the system; the activities and skills of each; the style and topic of their communication; the extent to which communication facilitates or interferes with their other activities; the character of their interdependence; and the organizational means for control of interaction. Study of the interrelations between communication and integration will be more profitable if the social system to be investigated is first analyzed with regard to its objectives, resources, and social milieu and the structural-functional requirements of the system and its constituent subgroups than if aspects of communication and integration

are mechanically related each to the other. In such an analysis not only the general organizational features of bureaucracy or of primary groups should be considered but also those unique problems which differentiate this particular social system from other social systems.

APPENDIX

CONSTRUCTION OF THE INDEX OF NURSING DEPARTMENT COORDINATION

The measure of nursing department coordination, used in this dissertation as an indicator of functional integration, was derived from information given by nursing personnel in each of the ten hospitals in response to the three questions given below. The first question was asked of supervisory nursing personnel, staff nurses, practical nurses, aides and orderlies. The second and third questions were asked of staff nurses, practical nurses, aides and orderlies.

1. How easy is it for one shift to take over without confusion from where the previous shift left off? (Check one)

   _____(1) It is extremely easy
   _____(2) It is very easy
   _____(3) It is fairly easy
   _____(4) It is not so easy
   _____(5) It is hard or difficult

2. When you come to work, how hard is it for you to find out what went on on the job since you last were there? (Check one)

   _____(1) It is extremely hard
   _____(2) It is very hard
   _____(3) It is fairly hard
   _____(4) It is not so hard
   _____(5) It is rather easy
   _____(6) It is very easy
   _____(7) It is extremely easy

3. How often do you feel that people from the previous shift left you with unfinished work or with problems that they should have handled during their own shift? (Check one)

   _____(1) I always feel this way
   _____(2) Nearly always I feel this way
   _____(3) Most of the time I feel this way

_____(4) About half of the time I feel this way
_____(5) Sometimes I feel this way
_____(6) Only occasionally I feel this way
_____(7) I never feel this way

For each of the above questions, means were computed separately on the data from each nursing category. The means were combined after each had been weighted according to the sampling ratio used for the respective nursing groups. Thus, an over-all mean representing the judgment of nursing personnel in each of the ten hospitals was calculated for each of the three items. Finally, the rank orders of each hospital on each of the three coordination items were summed. The resulting sums were then ranked to give a general measure of nursing department coordination in the ten hospitals.

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