THE ROLE OF TELEPHONIC CONSULTATIONS IN CREATING INNOVATION ADOPTION IN HEALTH ORGANIZATION

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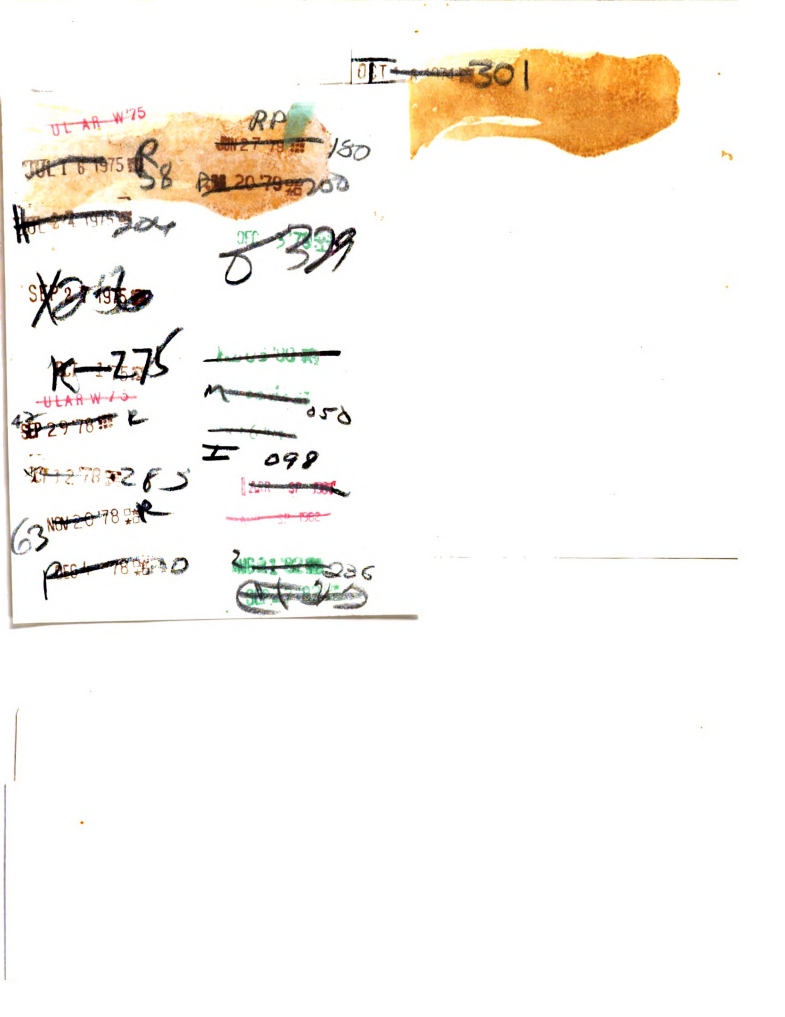

ABSTRACT

THE ROLE OF TELEPHONIC CONSULTATIONS
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Esther Onaga Fergus

This study examined whether telephonic consultations subsequent to a five day workshop on a geriatric program called milieu therapy affected the degree to which the adoption of the program took place in nursing homes and hospitals. The nursing homes and hospitals were ranfomly assigned to three conditions: (1) no persons receiving telephonic consultations, (2) one person receiving consultation and (3) three persons receiving consultations. Following the workshop, five consultations were conducted, one every two weeks. Three months after the last consultation a follow-up questionnaire was obtained to examine how much adoption had occurred.

Results of this study indicated that telephonic consultations did not create more information dissemination or enhance utilization of particular forms of information dissemination. However, the consultations with three persons: (1) enhanced the inclusion of more staff in the

planning groups, (2) supported low social status staff in taking leadership roles and (3) included more staff from various work areas into the planning group. No significant difference could be found for the degree of actual program adoption that took place within the organizations, but there were significant differences between nursing homes and hospitals on the degree of change that took place. Cluster analyses revealed that the outcome variables were relatively independent as were various organizational dimensions.

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Esther Onaga Fergus

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To Ted

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CHAPTER I

INTRODUCTION

The ever increasing rate of innovation development in the fields of health and welfare, and the prevailing gap between what is known and what is used, makes the study of how innovations are adopted exceedingly important. LaBiere (1965) clearly recognizes the difficulties involved in implementation of innovations.

> In a sense every innovation is ahead of the times and therefore at odds with the times; but whether the course of human events will catch up with a given innovation and foster its being utilized or veer off in some other direction is not determined by the innovation itself.

Since the potentialities of an innovation cannot become actualized without some introduction or promotion, the change agent or advocate is a crucial person in the adoption of an innovation (LaPiere, 1965; Havelock, 1972). This study examines the effects of a change agent's efforts to implement a geriatric milieu therapy program in hospitals and nursing homes. Organizational variables which relate to implementation are also investigated. It is essential to examine the five models of change agentry as well as the studies which have been done on various methods of implementation to gain some perspective about the process of implementation.

Five Models of Change Agentry

Four of the five models of change agentry have been discussed in Planning of Innovation by Ronald Havelock (1971). The four models include: (1) the problem solver model (P-S), (2) the social interaction model (S-I), (3) the research, development add diffusion model (RD&D), and (4) the linking model (L). The fifth model, experimental social innovation (ESI), has been developed by George Fairweather (1967, 1972). Although the change agent in the five models shares the attribute of being a champion of change in some way, each model suggests different roles for the change agent.

Problem Solver Model (P-S)

The term, change agent, was first introduced in the P-S perspective. Most of the practical applications of the P-S perspective have been done in organizational change work although the P-S process has often been applied in psychotherapy on change of an individual's behavior. A major distinction of the role of the change agent in the P-S model is that he is a professional helper from the outside (Lippit, Watson and Westley; 1958). The relationship between the change agent and client begins at the client's request for help. The relationship is voluntary and temporary.

The basic function of the change agent is to help the client solve a problem. Specifically the change agent

(1) helps the client diagnose the problem, (2) helps assess the client's resources and capacity to change, (3) helps the client select appropriate change objectives, (4) helps the client promote change and helps the client to become independent by teaching skills for promoting self renewal. A collaborative role between the change agent and client is emphasized because it is believed that clients will support what they create (Thelen, 1967). Often the change agent in the P-S perspective carries with him some knowledge of theories and research in social science. His ability to bring this knowledge to bear on the client's problems, to a large extent, determines his effectiveness. In this respect the P-S change agent greatly differs with change agents in the other models, who advocate some tested system of product. Examples of the types of change agents using the P-S perspective include such professionals as marriage counselors, community organizers, social workers and therapists.

It should be clearly recognized that although interpersonal and group relations may improve through the change agent's efforts, change in organizational structure and procedures that would affect the organization's function would not necessarily result. Argyris (1970) explictly states that the implication in the P-S perspective is that change is not a primary task of the agent; rather the agent's function is to provide information in order that the client may make a choice. Thus, it appears that although the term

change agents originated from the P-S perspective, in reality the agents are not advocates for change in the form of adaption of a specific social innovation. The following four models, in contrast to the P-S models, define change as the adaption of an innovation that may well change the function and structure of the client system.

Social Interaction Model (S-I)

S-I therorists concern themselves with observations of the channels of communication by which innovations diffuse through a social system. Major focus is placed on the characteristics of the user or adopter in the context of his social interaction network. The innovation decision process developed by Rogers (1971), a major spokesman for the S-I perspective, explains the stages of diffusion with respect to the S-I perspective. The innovation decision process includes: (1) knowledge, (2) persuasion, (3) decision, and (4) confirmation.

The role of the change agent is not explicitly characterized in this perspective because the emphasis has been on the user and not the change agent per se as described in the P-S perspective. From the S-I studies available, Ronald Havelock (1971) listed the following roles that change agents played in the S-I perspective: (1) the passive observer relying on the natural forces of social interaction, (2) the user of opinion leaders, (3) the network builder who enlisted opinion leaders and used group meetings, and (4) the user of multimedia.

Rogers (1971) refers to the S-I role of change agents from two perspectives. The first perspective comes from the findings of correlative studies on the determinants for a change agent's success. The second perspective involves the change agent's use of communication channels for diffusion of innovations. The S-I model has perhaps made its greatest contribution regarding the characteristics of successful change agents and the effectiveness of various communication methods through its correlative studies.

Research, Development and Diffusion Model

The elements of the RD&D perspective were first laid out by Henry Brickell (1964) and David Clark and Egon Guba (1965), men in the field of education. The research, development and diffusion model (RD&D) supports the process of (1) basic research, (2) applied research, (3) development and testing of prototypes, (4) packaging and product, and (5) mass dissemination. The writings in RD&D suggest that the theorists hope that the process is continuous and that linkages are made between basic research, applied research, developers and the diffusers. This perspective emphasizes a rational approach to change beginning with a useable product or process demonstrated through research and development followed by packaging and dissemination. Although widely accepted by educational organizations as well as agricultural extension systems there are some weaknesses in its practical application. First there is little known continuity between

the work of the basic researcher and the applied research, and there appears to be an equally large gap between the work of the applied research and the user.

Although a great deal of work has been done in the research and development phases, the diffusion aspect of the model has received little attention. Like the S-I model, the change agent's role is not explicitly defined. Perhaps this lack of attention is reflected in the underlying assumption held by RD&D theorists that a passive and rational audience will accept the information when given at the right time, at the right place and in the right form (Havelock, 1971).

Although not stated, the person who packages and plans for dissemination may be thought of as a change agent because he is working towards diffusion of an innovation. Two things are true of change agents in the RD&D model. First, they advocate a product or program that is tested and second, they intend to plan for a large scale diffusion, although in reality great efforts in diffusion have not been made.

Linkage Model (L)

The development of the linkage model (L), supported by the Center for Research on Utilization of Scientific Knowledge at the University of Michigan, was primarily pri-marily prompted by the concern that a large proportion of innovations in American education and social practice never

gets transmitted to the user. The linkage model has been created in an attempt to bridge the gap between the resource system and the user system by selecting the strongest features from the three distinct perspectives, research development and diffusion (RD&D), social interaction (S-I), and problem solving (P-S) (Havelock, 1971).

The linkage process rests on creating interdependent and reciprocal relationships between user systems and resource systems. The user system takes the model of problem solving cycle, initiating with a felt need and moving successively to diagnosis, problem statement, search, retrieval of the solution and application of the solution. The resource system and the user system simulate the processes that occur within each system. It is hoped that if the resource system could simulate the problem solving cycle in the user system it would better understand the user's need. Likewise if the user simulated the resource system's process of research and development it will be more receptive to adopt the innovation.

In The Change Agent's Guide to Innovation in Education, Ronald Havelock (1973), delineates four primary ways a change agent can act. The first type of role is that of a catalyst where the change agent prods or stimulates the client system to begin working on its problems. A second is as a solution giver. Here the change agent is knowledgeable about when and how to offer solutions to the client

system. In a third role the change agent helps the client system go through the six stages of planned change as a process helper. Finally, as a resource linker, the change agent brings resources such as finances, knowledge of solutions, skills in diagnosing problems and expertise in the change process to the client system.

The organization of the linkage system suggest that change agents would be located in the interphases of the subsystems. Some focus is placed on the practice subsystem (subsystem of practitioners) for taking the linkage role between the research systems and the user system. Part of the problem of the lack of knowledge dissemination is attributed to the lack of practitioner's skills to interpret information and to question the researcher (Lippit, 1967). Thus linkage theorists encourage training the practitioners in how to use scientific knowledge, how to adapt the findings, and how to use diagnostic tools to collect information.

Experimental Social Innovation Model

The major spokesman for the ESI model, George W. Fairweather, best expresses the underlying features unique to the ESI model in his module, Social Change: The Challenge to Survival (1972). The features of the ESI model include the model building and evaluation phase and the implementation phase which consist of approaching, persuading, adopting, and activating diffusion of the model.

The change agent plays an important role in the implementation process which occurs only after a model has experimentally demonstrated its effectiveness. The ESI change agent (1) is supportive of humanitarian values, (2) is committed to solve a human problem, (3) approaches change with a social action orientation, (4) advocates an innovation that has been experimentally tested, (5) utilizes experiments with methods of change until the masses adopt the innovation (Fairweather, 1972). Like the P-S model the change agent operates outside of the user system. However, unlike the more passive roles given the change agent in the other perspectives, the ESI change agent is described as one who is himself active and morally committed to the implementation of the particular innovation.

The ESI model is unique in that it has established many of its guidelines for the role of change agent from experimental work. It gives a fairly clear picture about the general role of the change agent and relies on ongoing or future experimental research to determine what role would be most effective.

Methods Change Agents Utilize to Promote Implementation

Five methods commonly used for diffusion of information or innovations include: (1) dissemination of written material, (2) people to people contact, (3) presentation of workshops, conferences or seminars, (4) providing demonstrations or site visits, and (5) use of mass media.

Experimental studies on the efficacy of these methods for the diffusion of information or innovations are scarce and clearly need more attention.

Written Methods

The research findings on the effectiveness of written material indicate that they have limited value with respect to promoting behavioral change. For instance Halpert (1966) found that printed reports, although widely used, were not read by many practitioners. Another study found that recipients of the written information used the information in further verbal discussions, but not in any modification of practices (Goldin, Margolin, et al., 1969). Results of an experimental study on the diffusion of a mental health innovation indicated that passing out of brochures on the innovation did not create any significant changes (Fairweather et al., 1973). In another study, newsletters advocated certain environmental action for consumers were found to be ineffective by themselves in creating behavioral change, but newsletters with telephonic prods were effective in adoption of ecologically supportive behavior. (Lounsbury, 1973). A recent study by Glaser and Ross (1971) state that at best written reports stimulate interest and rarely do they create active advocacy, especially when the innovation requires considerable modification of present behavior.

Personal Contacts

Research findings on the diffusion of information via personal contacts appear to show that they are somewhat effective. The literature indicates that many utilizers of information receive their information from face-to-face confrontations (Rogers, 1962; Coleman, Katz, et al., 1966; Roberts and Larsen, 1971). Furthermore studies indicate that practitioners learn most readily from opinion leaders in their profession (Watson, 1966; Lazarsfeld, Sewell, et al., 1968). The study by Ryan and Gross (1943) showed that salesmen were effective informers, but informal sources legitimized the information. Spooner and Thrush (1970) report that personal follow-up following an interagency conference enhanced the dissemination of a mental health research findings and initiating institutional change.

Workshops, Conferences, and Seminars

The general consensus of the effectiveness of workshops, conferences or seminars is that they are more influential than one-way reports in providing a climate for change and facilitating the use of new knowledge (Glaser, 1966; Chesler and Fox, 1967; Fairweather, et al., 1973).

Demonstrations

Demonstrations appear to be fairly effective in providing for adopting. Visits to demonstration sites similar to the visitor's own working situation have greater transfer

value than when the visitor sees his own situation as basically different from that of the demonstration site (Costello and Zalkind, 1963; Brickell, 1964; Miles, 1964b; Lippit, 1965b; Wiles, 1965; Mackie and Christensen, 1967). Glaser and Ross (1971) state that site visits promoted enough advocacy so that the participant often actively sponsored the innovation after leaving the demonstration project. Richland (1965) found that his traveling seminar introduced more innovations to schools than those schools which received no visits. In a major experimental study comparing the effectiveness of brochures, workshops and demonstrations, it was found that demonstrations followed by site visits and telephonic consultations produced a significanly higher proportion of adopters than the brochure and workshop conditions. (Fairweather et al., 1973) In a study of mental health demonstration projects, Lippitt and Butman (1969) recommend that more thought be placed on the needs of potential adopters, that evaluation of the various methods of communicating with adopters be made and that change agents become available to continue providing support in planning and implementing the new programs.

Mass Media

Mass media have not received much use in communicating research findings. It appears that mass media are helpful in providing for awareness of a problem to a large group,

but interpersonal communication is necessary to build more credibility (Rogers, 1962; Menzel, 1966; Rogers and Svenning, 1969).

The literature on the various methods of communication indicate that although some methods for implementation are commonly practiced they are not necessarily effective in creating change. One method may be effective in only one aspect of implementation. For example, mass media seems to be effective in providing information to a mass of people, but it is not necessarily effective in initiating change. By far demonstrations appear to be most effective in enhancing change. These findings suggest the need to test more powerful methods and need to test the efficacy of a combination of the methods to implement change.

An examination of the five models of change indicate that the change agent's role ranges from (1) passive to active, (2) vague to explicitly defined, and (3) champion of an untested product to a champion of a product that has been experimentaly tested in a naturalistic setting. Comparatively, the ESI model appears to have made and to provide great potential for contributing experimental evidence regarding the processes of change. The role of the change agent is explicitly deliniated in the ESI model and provides for continuity in the implementation process.

A study which involved actual behavioral changes was conducted by Fairweather, Sanders and Tornatzky (1973). They compared the effectiveness of an action consultant, who made site visits to the target organizations with written information from a manual, in the adoption of a mental health program for residents in mental hospitals. The results showed that implementation related prsitively with (1) active and continuous consultation during the social change process, (2) greater number of professional staff involvement in the decision to implement, (3) greater number of persons talked to and talked to more often at the time of initial contact, (4) greater personal satisfaction among staff about the decision to implement and (5) less hierarchical structure of the organization as perceived by the staff.

The results of the Fairweather, Sanders, and Tornatzky (1973) study raise a number of questions concerning staff involvement and the degree of communication that are important for further investigation. Some of the questions it raises and explored in this study are: (1) will telephonic advocacy be as effective in promoting active adoption as the action consultant who makes site visits?, (2) will peer planning groups be formed with telephonic advocacy?, and (3) will telephonic advocacy with staff of different professional levels increase involvement of more people, promote peer group development and finally promote

actual implementation of the innovation? Observing the tenets of the ESI model, this study experimentally tested the effects of telephonic advocacy on the degree of implementation of a geriatric treatment program that had been evaluated.

Experimental Hypotheses

Hypothesis 1

Rogers and Shoemaker (1971) indicate that information dissemination is the first step toward change. In addition the literature shows that many utilizers of information receive their information from personal contacts (Rogers, 1962, Coleman, Katz et al., 1966; Roberts and Larsen, 1971). Furthermore the study by Spooner and Thrush (1970) found that personal follow-up after an interagency conference enhanced the dissemination of a mental health finding. These findings suggest that perhaps personal telephonic consultations to more than one person could stimulate more information dissemination which may follow with actual adoption of the innovation. Thus it is hypothesized that personal telephone contacts with more than one person over a period of time during the social change process will increase the dissemination of information.

Hypothesis 2

In a recent finding from a national social change of hospitals study, it was found that a group of members

within the organization, whose goals were to actively take measures toward the adoption of innovation, was essential, in addition to information dissemination, to create change. (Fairweather et al., 1973). In essence planning groups could be considered as a mediating outcome variable before social change of a complex nature occurs. The national social change study, in addition, revealed that the visit from the action consultant contributed to creating change by enhacing group cohesiveness and giving staff some task orientation (Fairweather et al., 1973). These findings suggest that an outside consultant could act as a catalyst to establish a group of persons committed to create change. Therefore it is hypothesized that personal telephone contacts with more than one person over a period of time during the social change process will increase the formation of planning groups.

Hypothesis 3

The national social change study of hospitals also revealed that diffusion of an innovation does not occur spontaneously but is created by use of external pressures or stimulations which are active, personal and frequent (Fairweather et al., 1973). In addition, the study found that the development of planning groups was related to active adoption of the innovation, and that more people talked to at the time of the initial contact related to the

adoption of the innovation (Fairweather et al., 1973). It appears that perhaps personal telephonic contacts to more than one person over frequent intervals may be effective in creating change. Thus it is hypothesized that personal telephone contacts with more than one person over a period of time during the social change process will increase the active adoption of the innovation.

Hypothesis 4

The innovation advocated in this study was created and tested in a hospital setting. It is therefore possible that the innovation which was created is more apporpriate for hospitals than nursing homes as it was developed in the hospital setting. Thus it is hypothesized that more hospitals will adopt the innovation than nursing homes.

In addition to testing the experimental hypotheses, the interrelationships between the various organizational dimensions, outcome dimensions and attitudinal measures will be examined.

CHAPTER II

METHODS

Sampling Procedure

Thirty-six health organizations served as the sample for the study. Twenty-three of them were hospitals and thirteen of them were nursing homes. The thirty-six organizations were volunteer participants in five milieu therapy workshops at the Institute of Gerontology. The thirty-six health organizations were accumulated by two workshops, one in July and the other in August. The Instutute of Gerontology provided for their housing and food for the five day workshop.

When more than one participant represented a particular organization, the Participant Interaction (Appendix A) questionnaire was administered on the fifth day of the workshop. The questionnaire provided the following information: (1) whether the other staff members who attended the workshop, worked in the same area, (2) whether the staff who attended the workshop with them exchanged or shared staff with him, (3) whether the staff who attended the workshop worked with the same patients, (4) whether the staff who attended the workshop with them attended meetings with him more than once a month. If the workshop participant

answered no to these questions he was considered a separate unit and treated as a separate organization.

The twenty-three hospitals and thirteen nursing homes were then randomly assigned to the following treatment conditions:

1. no person receiving telephonic consultations
2. one person receiving telephonic consultations
3. three people receiving telephonic consultations

This is shown in Table 1.

TABLE 1.--Experimental Design.

Organizations	Number of Staff Receiving Consultations			
	0	1	3	
Nursing Homes	n = 4	n = 5	n = 4	13
Hospitals	n = 7	n = 8	n = 8	23
	11	13	12	36

The recipients of the telephone consultations were chosen at the end of the five day workshop. If only one person represented the organization, he automatically became the leader. If more than one person represented the organization they were asked to select a leader. The leader was then told to list two other staff members who would be interested in developing the milieu program in their work area. Thus for the one person consultation condition, the

leader became the contact person; for the three person contact situation, the leader and the two other staff members he listed became the contact people. In six situations the leader did not list two other names. When this occurred, the experimenter first contacted the leader and asked for two other names of staff who might be interested in developing the milieu program. In both the one person contact situation and the three person contact situation, names were changed as the consultant was referred to call another person. (One organization, a nursing home, refused to disclose two other names for consultation purposes and was thus eliminated from the study).

Treatment

The concept of milieu therapy, the innovation being advocated, is best described in the training manual, Developing a Therapeutic Community, (Coons, et al., 1973).

> Milieu therapy uses the total environment-staff, program, ward life, physical setting, the patients themselves-as treatment agents. The therapeutic community must begin with STAFF; in an important sense, the milieu is therapeutic only when staff becomes actively involved with patients and learns new roles. The health specialists-doctors, nurses, social workers, occupational therapists, etc.-must be not only therapists but trainers, demonstrating and teaching ward staff the techniques and skills they need to become treatment agents. The specialist must learn to give staff the support they need to enable them to accept change, and he must gain his satisfaction, not from maintaining his position of authority, but from helping staff grow. Ward staff must become actively involved as team members and must share in the responsibility for bringing about change.

> The PROGRAM must be designed to meet specific treatment goals for the patient. This implies an awareness of patients needs and a willingness on the part of staff to evaluate current interventions, test new programs, and discard practices which do not prove to be therapeutic for patients.
>
> The PHYSICAL ENVIRONMENT should look attractive and be as noninstitutional as possible. It must provide chances for privacy and opportunities for patients to be self-sufficient rather than deprive them of the materials and equipment they need to care for themselves.
>
> PATIENTS thenselves must be taught new ways to function, new skills to care for themselves, and appropriate ways to relate to others.

The consultant attended two five day workshops and worked with the staff and patients on the ward for a week to become acquainted with the milieu therapy program. The consultant also conducted approximately five hours of role playing consultation sessions with the training staff at the Institute of Gerontology in preparation for the telephonic consultations.

Five consultations were given to each of the organizations (nursing homes and hospitals) in the two experimental treatment conditions. These consultations were conducted by a person-to-person call to each of the recipients once every two weeks. The consultant attempted to keep the consultations at the rate of one every two weeks. However, the consultations generally spanned a longer period of time because of problems in contacting staff on vacations, meetings, and sick leave. The order of the calls was selected ramdomly for the first

consultation. However, leaders of the organization received their call first before the other two members in the three man condition.

The content of the telephone consultation consisted of: (1) introducing oneself in association with the milieu training staff, (2) questioning what had been initiated after return from the workshop or last consultation, (3) encouraging information dissemination to other staff, (4) encouraging creating a group of interested staff, (5) suggesting that meetings be set with interested staff on a regular basis, (6) encouraging that specific tasks be delegated to begin action toward adoption, and (7) offering to answer any questions staff may have had. The length of the consultations was not limited and ranged from approximately 30 seconds to 30 minutes.

Data Collection Procedures

Data for the study was collected by written questionnaires from the designated leaders of the organization at the workshop and once after the workshop. The follow-up data was gathered 12 weeks after the last consultation with the organization's leader. The follow-up date for the control group (no person receiving telephonic consultation) was determined. It was set at 12 weeks after the mean date of the last consultation for each of the July participants. A separate mean and follow-up date was established for the August participants.

The follow-up procedure entailed a sequential process depending on whether questionnaires were returned. Thus the first questionnaires for the follow-up were sent by air mail delivery to the leaders of each organization at the time of the last telephonic consultation along with a stamped envelope and a letter requesting that the questionnaires be completed. If the questionnaire was not returned the experimenter waited for two weeks after the questionnaires had been sent before sending a second follow-up letter again requesting that the questionnaire be completed and returned. If no reply was received in two weeks, the experimenter placed a person-to-person call requesting that the questionnaire be completed. In this way follow-up information was obtained on all but one organization.

Instruments

The variables of interest in the study were measured by administering five different questionnaires, recording information during the telephonic consultations and having the training staff record any rentals of films and purchases of training packages of the program. The questionnaires were:

Description of Setting (Appendix B)

This questionnaire was designed to retrieve information about the nature of the organization with respect to the type of patients, staff, characteristics of the leader

and organizational locale and history. This questionnaire was completed on the first day of the workshop. The variables measured in the questionnaire include: (1) location of the facility, (2) length of the facility's existence, (3) type of patients (elderly, ambulatory, length of their stay), (4) staff resources, (5) staff turnover, (6) frequency of staff meetings, (7) involvement of staff in meetings, (8) involvement of the leader in training, administration, direct services, and planning of programs and the environment, (9) number of staff who attended previous workshops or institutes, (10) how the leader was first introduced to the program, (11) the leader's training, (12) the leader's length of time spent at present job. Scoring procedures for responses concerned with staff positions are shown in Appendix H.

Physical Environment and Resources, Programing, Staff and Patient Roles, (Appendix C)

This questionnaire was adminstered at the workshop and twelve weeks after the last telephonic consultation. The items in the questionnaire examined the physical environment and resources of the organization, the programs, staff and patient roles. The scoring for the physical environment and resources of the organization, its program and staff varaibles was done on a six point Likert type

scale. The staff decision making on patient treatment, staff teaching role and patient's roles were scored on a five point Likert type scale.

Workshop Effectiveness
(Appendix D)

The workshop effectiveness questionnaire examined the following variables: (1) perception of milieu therapy as a new program, (2) effectiveness of the workshop for information dissemination, (3) degree of ease in adapting the innovation, (4) degree of personal agreement with the information presented, (5) degree to which staff in the same work area responded positively to the information presented, (6) recommendations of workshop to other staff members, (7) perception of the utility of the training series, and (8) the intent to obtain the training series and films. Items in this questionnaire were scored on a five point Likert type scale.

Characteristics of Innovations
(Appendix E)

This questionnaire provided information about the participants' perceptions of milieu therapy with respect to: (1) the degree of role change necessary, (2) the degree to which the program was appropriate for their patients, and (3) the degree to which the program was easy to persuade other staff to implement. Each of the items on the four

dimensions were rated from 1 to 6. The mean score was then taken for each of the categories. (See appendix D for scoring).

Follow-up Communication Questionnaire (Appendix F)

The follow-up questionnaire examined the following types of information: (1) the extent of discussion of the program to fellow staff members, (2) the methods of communication used to present the material, (3) the number of members receiving information, (4) staff reaction to the information, (5) degree of difficulty in presenting information, (6) existence of a group to try out the ideas of milieu therapy, (7) the social status of the member of the group who assumed leadership, (8) number involved in the group, (9) mean score of the social status of the people involved in the group, (10) the frequency of the group meetings, (11) length of the meetings, (12) location of the work area, (13) degree of hierarchial decision making, (14) whether the group met in informal session, (15) extent to which conditions prevented making successful changes, (16) whether participants ordered the films from the Institute of Gerontology and (17) whether the participants ordered the training series package.

Telephone Consultation
(Appendix G)

This short questionnaire was administered to only those leaders receiving telephonic consultations. It measured whether the participant thought the consultation was helpful or not and if helpful whether the helpfulness was the result of providing information on resources, on how to initiate change, or in provision for emotional support.

The total number of minutes for each organization's five consultations was recorded. Finally the order of how the telephone calls were conducted was determined by ranking each leader's consultation by who received the call first. The sum of the ranks for each organization determined the final rank for the consultation calls.

CHAPTER III

COMPARATIVE RESULTS

Testing the Experimental Hypotheses

The primary hypotheses of this study concern: (1) the amount of information dissemination, (2) the degree to which planning groups were formed, and (3) the degree to which actual initiation of change took place. After these hypotheses were tested, the relationship between these outcome measures with other organizational variables was examined.

Information Dissemination

The analysis to determine the degree to which information about the innovation was disseminated is shown in Table 2. A two way analysis of variance indicates that there are no significant differences between treatment groups and between institutions.

TABLE 2.--Comparison of the Number of Staff Receiving Information.

Source	df	MS	F
Institutions	1	.0075	.003
Treatment	2	.2582	.1031
I x T	2	.5488	.2191
Error	30		

To further examine how the information was disseminated, chi-square tests were completed on (1) whether films were actually obtained and (2) whether the institute's training series were purchases. Tables 3 and 4 show that there are no significant differences between treatment groups.

TABLE 3.--Rental of Film

Organization Rented Films	Number of Staff Receiving Telephone Consultations		
	0	1	3
yes	3	3	2
no	8	10	10
$\chi^2 = .34$			
df = 2			

TABLE 4.--Purchase of Training Series

Organization Purchased Series	Number of Staff Receiving Telephone Consultation		
	0	1	3
yes	6	8	3
no	5	5	9
$\chi^2 = 3.63$			
df = 2			

In order to investigate the methods used in information dissemination, chi-squares were used to test: (1) whether staff passed on written literature, (2) whether staff called a meeting to disseminate information, (3) whether staff disseminated information via conversation, and (4) whether workshops were conducted. Tables 5, 6, and 8 show there were no significant differences between treatment groups. Table 7 reveals that there was a significant difference ($p<.01$) between treatment groups on information disseminated through conversation.

TABLE 5.--Information Dissemination Via Written Literature

Dissemination of Written Literature	Number of Staff Receiving Telephone Consultations		
	0	1	3
yes	5	7	3
no	6	6	9
$\chi^2 = 2.17$			
df = 2			

TABLE 6.--Information Dissemination Via a Meeting

Information Dissemination Via a Meeting	Number of Staff Receiving Telephone Consultations		
	0	1	3
yes	5	6	7
no	6	7	5
$\chi^2 = .44$			
df = 2			

TABLE 7.--Information Dissemination in Conversation

Information Dissemination in Conversation	Number of Staff Receiving Telephone Consultations		
	0	1	3
yes	4	11	11
no	7	2	1
$\chi^2 = 10.25$*			
df = 2			

* = p significant at .01 level

TABLE 8.--Information Dissemination Through Workshops

Conducted Workshops	Number of Staff Receiving Telephone Consultations		
	0	1	3
yes	0	2	2
no	11	11	10
$\chi^2 = 2.22$			
df = 2			

Formation of a Planning Group

The second area of interest investigated was the formation of planning groups. To further explore characteristics of the planning group, the following variables were measured and tested: (1) the number of members in the planning group, (2) mean social status of the entire group, (3) social status of the leader, (4) frequency of meetings, (5) length of the meetings, (6) whether members worked in the same area, (7) attendance of meetings, (8) turnover of group membership, (9) degree of shared decision making, (10) whether the groups met informally and (11) number of staff levels involved in planning group.

The chi-square test was used to examine the effects of the treatment on the formation of a planning group. Table 9 reveals that there were no differences between treatment conditions. However, a close glance at Table 9 reveals a

strong trend ($p < .10$) towards formation of planning groups in the condition where three staff members received consultations.

TABLE 9.--Formation of a Planning Group

Existence of a Planning Group	Number of Staff Receiving Telephone Consultation		
	0	1	3
yes	6	7	11
no	5	6	1
$\chi^2 = 5.06$			
df = 2			

This finding becomes significantly pronounced when the number of staff involved in the planning group was examined by the median test. Table 10 shows a difference between the treatment groups obtained at the .01 level of significance.

TABLE 10.--Number of Staff Involved in Planning Group

Number of Staff in Group	Number of Staff Receiving Telephone Consultation		
	0	1	3
less than or equal to 4	9	9	2
more than 4	2	4	10
$\chi^2 = 11.43^*$			
df = 2			

*$p < .01$

The two way analysis of variance to test for differences between the treatments or between the types of organizations or mean social status of the entire group indicates no significance as shown in Table 11. However, the analysis of variance results as shown in Table 12 reveals that there was a significant difference between treatments for the leader's social status. Examination of the cell means shown in Table 13 indicates that the three person contact situation had a lower status leader than the other two treatment conditions for the hospital situation. The one person contact situation seemed to have a higher social status leader than the no person contact situation or the three person contact situation for both hospitals and nursing homes.

In order to examine whether the original leader's social status differed between the treatment conditions, an analysis of variance was done showing no difference (Table 14). In addition, whether the leader's choice of two other members differed in social position from his own was tested to determine the possibility of the original composition of social status influencing the outcome of lower social status staff involvement in leadership roles for the three person contact situation. Table 15 shows that there were no significant differeces between the original leader's social status and those social status of the two staff he chose.

TABLE 11.--Analysis of Variance for Mean Social Status of Staff in Group.

Source	df	MS	F
Institutions	1	1.5467	.3205
Treatments	2	7.2826	1.5089
I x T	2	.8171	.1693
Error	18		

TABLE 12.--Analysis of Variance for Leaders' Social Status

Source	df	MS	F
Institutions	1	2.8451	.6634
Treatments	2	15.9864	3.7275*
I x T	2	3.7451	.8732
Error	8		

*p<.05

TABLE 13.--Cell Means for Social Status of Leader[a].

Institutions	Number of Staff Receiving Telephonic Consultations		
	0	1	3
Nursing Homes	2.5	1.6	2.5
Hospitals	2.4	1.3	4.4

[a]Social Status was scored 1 to 6 with higher status staff given 1.

TABLE 14.--Analysis of Variance for Social Status of Original Leaders in Group

Source	df	MS	F
Institution	1	1.8006	.7638
Treatments	2	2.5714	1.0908
I x T	2	1.8396	.7804
Error	8		

TABLE 15.--Analysis of Variance for Social Status of Leader and Social Status of Two Other Members Selected by the Leader

Source	df	MS	F
Institution	1	3.2552	1.3751
Leader and Selected Two	1	3.0104	1.2717
I x T	1	.8802	.3718
Error	8		

As shown in Tables 16, 17, 18, 19 and 20, the analyses of variance did not result in any significant differences between treatments and between institutions for the following variables: frequency of meetings, length of meetings, attendence of meetings, turnover of group membership and degree of shared decision making. Table 21 indicates that there was a significant difference between

institutions with respect to the number of staff levels involved in the planning group. Table 22 shows the cell means of the number of staff levels involved, clearly indicating greater number of staff levels involved in hospitals than nursing home planning groups.

TABLE 16.--Analysis of Variance for Frequency of Meetings

Source	df	MS	F
Institutions	1	.4047	.1472
Treatments	2	2.7958	1.0166
I x T	2	.2500	.0909
Error	18		

TABLE 17.--Analysis of Variance for Length of Meetings

Source	df	MS	F
Institutions	1	3.0773	2.1223
Treatments	2	1.9525	1.3468
I x T	2	1.0363	.7147
Error	18		

TABLE 18.--Analysis of Variance for Attendence of Meetings

Source	df	MS	F
Institutions	1	6.3772	1.3367
Treatments	2	11.4628	2.4026
I x T	2	.7287	.1527
Error	18		

TABLE 19.--Analysis of Variance for Turnover

Source	df	MS	F
Institutions	1	2.3192	.5743
Treatments	2	9.2631	2.2937
I x T	2	.6098	.1510
Error	18		

TABLE 20.--Analysis of Variance for Participation in Decision Making

Source	df	MS	F
Institutions	1	2.3487	.6683
Treatments	2	4.8926	1.3922
I x T	2	.5920	.1684
Error	18		

TABLE 21.--Analysis of Variance for Number of Staff Levels

Source	df	MS	F
Institutions	1	12.0401	5.0632*
Treatments	2	7.4034	3.1133
I x T	2	.9068	.3814
Error	18		

*p<.05

TABLE 22.--Cell Means for Number of Social Status Levels Involved in Planning Group

Institutions	Number of Staff Receiving Telephonic Consultations		
	0	1	3
Nursing Homes	1.0	1.0	1.8
Hospitals	1.6	2.1	3.5

Chi-squares were used to test for differences in treatment effects for whether staff in the planning groups worked in the same area and whether they met informally. Table 23 reveals that there was a significant difference between treatments in whether the staff worked in the same area. The data indicates that more staff who worked in different areas were involved in the planning groups in the three person contact situation.

TABLE 23.--Work in Same Area

Work in Same Area	Number of Staff Receiving Telephone Consultations		
	0	1	3
yes	6	7	4
no	0	0	7
$\chi^2 = 11.68^*$			
df = 2			

*p<.01

As shown in Table 24 there were no significant differences between treatment groups with regard to whether staff met informally. Using the probability of significance for a series of statistical tests created by Sakoda and his colleagues (1954) three significant results out of a series of twelve independent tests is significant at the .05 level. Thus, those three significant results obtained for the effects of treatment on the three variables involving planning groups should be recognized.

TABLE 24.--Informal Meetings

Met Informally	Number of Staff Receiving Telephone Consultations		
	0	1	3
yes	6	5	5
no	1	1	4

$\chi^2 = 2.26$

df = 2

Initiation of Change

The third outcome dimension involves the actual change initiated. Pretest measures were obtained for the change variables and two-way analyses of variance were used to determine whether any significant differences were obtained between the treatment groups on these variables. Six of the sixty-five variables were signficant on the pre test measures, which according to Sakoda et al.'s (1954) figure does not reach the .05 level of significance for the number of significant tests in a series of such tests. Thus the experimenter was able to treat the pretest scores as a covariate (Porter, 1972).

In order to test whether any changes took place in initiating change within the health organizations, analyses of covariance was used to test the sixty-five items of change and the pretest score was used as a covariate.

Three other variables which might have significantly affected the change score and which could not be controlled at the time of the random assignment were treated as covariates through the use of the following scores: (1) number of participants attending the workshop, (2) number of former participants who attended previous 14 week institutes, and (3) number of former participants who attended previous workshops.

The results of the covariance tests on the sixty-five change variables showed that (1) no significant differences can be attributed to the treatments, (2) nursing homes and hospitals were significantly different on several of the variables, and (3) no significant interaction effects were found. Although five of the sixty-five variables were found to be significant at the .05 level for the test of the treatment effect, the overall test of significance using Sakoda, Cohen and Beall's figure (1954) indicates that five out of sixty-five tests does not reach significance at the .05 level. The results of the analyses of covariance are shown in Table 25.

TABLE 25.--Analyses of Covariance on Change Measures.[a]

Variable	Treatment Effect			Institutional Effect			Interaction		
	df	F	P	df	F	P	df	F	P
Provide homelike living, dining & bedrooms	26	.6950	.5081	26	.3036	.5864	26	1.0104	.3780
Provide Leisure time & equip.- T.V. & pool table	26	1.4780	.2467	26	1.0948	.3051	26	1.0109	.3778
Provide personal laundry fac. - readily avail. & unlocked	26	.7737	.4717	26	2.0334	.1658	26	1.9328	.1650
Provide cooking fac. - readily avail. & unlocked	26	.1897	.8284	26	.0788	.7812	26	2.7749	.0809
Provide grooming materials readily avail. & unlocked	26	1.1938	.3192	26	.1304	.7210	26	.3548	.7047
Provide mending & sewing equip. - readily avail. & unlocked	26	.3439	.7123	26	.3439	.7123	26	.7941	.4627
Provide hair wash & dry fac. - readily avail. & unlocked	26	1.5650	.2282	26	.1957	.6619	26	2.6050	.0931
Provide non-institutional bathrooms w/doors & seats on toilets	26	.1680	.8463	26	.5300	.4732	26	.3735	.6920
Provide sm. dormitories (2-4 per room)	26	.8704	.4307	26	.0156	.9017	26	.8704	.4307

TABLE 25.--Continued

Variable	Treatment Effect			Institutional Effect			Interaction		
	df	F	P	df	F	P	df	F	P
Allow residents to take medication without supervision	26	.1133	.8934	26	.4972	.4871	26	6.2806	.0060
Apply resident motivational techniques by providing more meaningful tasks	26	3.1426	.0600	26	.0182	.8938	26	1.4313	.2573
Provide opportunities for patients to purchase own clothing	26	.9223	.4103	26	2.5543	.1221	26	.4107	.6675
Develop program with the disoriented by teaching time, day, & how to relate to others	26	.0104	.9897	26	2.4151	.1323	26	.1278	.8806
Provide crafts program	26	1.0785	.3549	26	.0000	1.0000	26	.2200	.8940
Provide music therapy	26	1.2787	.2954	26	.6892	.4141	26	1.9235	.1664
Teach residents how to care for selves-wash clothes, iron, cook, choose nutritious food; choose appro. clothing, make own beds	26	1.1616	.3287	26	.1854	.6703	26	.7464	.4840
Provide out of hospital & nursing home follow-up	26	.5132	.6047	26	11.6621	.0022*	26	.1659	.8481
Place men & women on same ward	26	.9768	.3900	26	1.5790	.2201	26	2.2329	.1274

TABLE 25.--Continued

Variable	Treatment Effect			Institutional Effect			Interaction		
	df	F	P	df	F	P	df	F	P
Provide physical therapy	26	1.1422	.3347	26	1.4948	.2325	26	.1123	.8943
Allow residents to visit potential placement & have choice to accept or refuse them	26	2.7494	.0826	26	11.2864	.0025*	26	2.0180	.1533
Develop a resident planning group to return to community living	26	.3899	.6810	26	1.9212	.1776	26	.6651	.5228
Develop a patient planning group for outings - movies, dinners & shopping	26	5.8698	.0079*	26	.3499	.5593	26	.0656	.9367
Shared decision making about resident treatment	26	.4715	.6294	26	.0687	.7953	26	2.2919	.1212
Wear street clothes instead of uniforms	26	.7686	.4740	26	6.3940	.0179*	26	1.4854	.2451
Frequently communicate among staff outside of formal meetings	26	.1502	.8613	26	.1985	.6596	26	.3655	.6974
Involve residents in tasks such as picking up mail & answering the telephone	26	3.6071	.0415*	26	4.3093	.0480*	26	.8890	.4232
Take role of instructor for teaching self care skills	26	3.0421	.0650	26	.5351	.4711	26	.1154	.8915

TABLE 25.--Continued

Variable	Treatment Effect			Institutional Effect			Interaction		
	df	F	P	df	F	P	df	F	P
Take residents on shopping & entertainment trips in the community	26	2.1409	.1379	26	1.5901	.2186	26	1.4377	.2558
Plan individual treatment programs	26	1.5743	.2263	26	.8032	.3784	26	.4750	.6272
Doctor's influence on resident treatment	26	.7716	.4726	26	.0062	.9378	26	.5054	.6091
Supervisor's influence on resident treatment	26	.0561	.9456	26	1.7047	.2032	26	.1781	.8379
Nurse's influence on resident treatment	26	.0164	.9833	26	.0142	.9061	26	1.7633	.1914
Have regular staff meetings	26	1.4925	.2435	26	.9782	.3318	26	1.7850	.1878
Provide private rooms	26	1.8649	.1751	26	5.2837	.0299*	26	2.0973	.1431
Provide access to use of phone	26	1.2765	.2960	26	2.9195	.0995	26	1.6650	.2088
Provide store or snack shop run by residents	26	1.2292	.3090	26	.3281	.5718	26	.4491	.6431
Make readily avail. car or bus transportation	26	.1397	.8703	26	2.1575	.1539	26	2.9343	.0710
Unlock doors to all areas of living quarters	26	.7679	.4743	26	.8030	.3785	26	.7754	.4713

TABLE 25.--Continued

Variable	Treatment Effect			Institutional Effect			Interaction		
	df	F	P	df	F	P	df	F	P
Teaching residents housekeeping skills such as how to serve food, sweep and mop	26	3.5905	.0420*	26	11.7839	.0021*	26	3.7583	.0369
Provide work experience through contract work	26	.5356	.5917	26	.0074	.9323	26	1.2494	.3034
Provide a staff residents governing board for decision making	26	.3263	.7245	26	7.0276	.0135*	26	.0245	.9759
Provide patient governing board consisting only of residents	26	2.1959	.1315	26	.0009	.9761	26	.0331	.9675
Allow resident choice about when to bathe & change clothing	26	1.1169	.3426	26	.0068	.9348	26	.2645	.7697
Nurse's aide's influence on resident treatment	26	.9431	.4024	26	.0309	.8619	26	1.0167	.3758
Attendent's influence on resident treatment	26	3.5455	.0435*	26	.1401	.7113	26	1.6635	.2091
Social worker's influence on resident treatment	26	.8291	.4477	26	2.5802	.1203	26	2.5673	.0961

TABLE 25.--Continued

Variable	Treatment Effect			Institutional Effect			Interaction		
	df	F	P	df	F	P	df	F	P
Occupational therapist's influence on resident treatment	26	.9035	.4176	26	2.5741	.1208	26	3.5177	.0445
Physical therapist's influence on resident treatment	26	.3565	.7035	26	11.0864	.0027*	26	1.5990	.2214
Doctor's involvement in teaching	26	.7776	.4699	26	.3021	.5873	26	.4428	.6470
Supervisor's involvement in teaching	26	.9403	.4134	26	.0396	.8496	26	.6967	.5073
Nurse's involvement in teaching	26	.3708	.6938	26	3.3322	.0795	26	3.9982	.0307
Nurse's aide's involvement in teaching	26	.9816	.3882	26	.2411	.6276	26	2.4195	.1088
Attendent's involvement in teaching	26	1.8255	.1812	26	.0003	.9861	26	.1721	.8429
Social worker's involvement in teaching	26	1.1291	.3387	26	1.1531	.2928	26	.1489	.8624
Occupational therapist's involvement in teaching	26	1.8901	.1713	26	.0560	.8148	26	2.4675	.1045
Physical therapist's involvement in teaching	26	3.0279	.0658	26	1.7380	.1989	26	1.0655	.3592

TABLE 25.--Continued

Variable	Treatment Effect			Institutional Effect			Interaction		
	df	F	P	df	F	P	df	F	P
Extent of staff meetings as a group to discuss resident treatment	26	.4951	.6152	26	1.9846	.1708	26	.6659	.5224
Extent staff problems are discussed at meetings	26	1.7970	.1858	26	.8680	.3601	26	1.3311	.2816
Extent staff gives & receives positive feedback	26	8.1670	.0018*	26	2.3332	.1388	26	2.6619	.0888
Extent staff gives & receives negative feedback	26	2.6911	.0867	26	.0000	.9972	26	.2013	.8190
Extent staff allows residents to act as consumer	26	.1806	.8359	26	.5683	.4578	26	.8933	.4215
Extent staff allows residents to act as workers	26	.4734	.6282	26	.6782	.4177	26	.0967	.9082
Extent staff allows residents to act as friends	26	.6236	.5439	26	4.6296	.0409*	26	.1381	.3717
Extent staff allows residents to act as homemakers	26	2.5881	.0944	26	6.4672	.0173*	26	2.4797	.1034
Extent staff allows residents to act as citizens	26	.6088	.5516	26	.9535	.3379	26	.4333	.6530

* Significant at .05 level

[a]The degree of freedom for error is 30 for every test

The experimenter graphed the distribution of pre and post test scores as shown in Figures 1, 2, 3 and 4. Figures 1, 2 and 3 display a highly skewed distribution closely resembling a J- distribution.

For testing the differences between nursing homes and hospitals, however, ten of sixty-five were found to be significantly different at less than the .05 level for the overall test. These ten variables were: (1) out of hospital follow-up, (2) visit potential placement facilities, (3) teach housekeeping skills, (4) staff-resident governing board, (5) private room provision, (6) wearing of street clothes by staff, (7) involvement of residents in mail pickup and telephone answering, (8) physical therapist's influence on resident treatment, (9) enhancement of resident's role as a friend, and (10) enhancement of resident's role as a homemaker. Table 26 shows cell means for these variables. The table indicates that hospitals scored higher than nursing homes on variables 1, 2, 4, 6, 9, and 10, while nursing homes scored higher than hospitals on variables 3, 5, and 8.

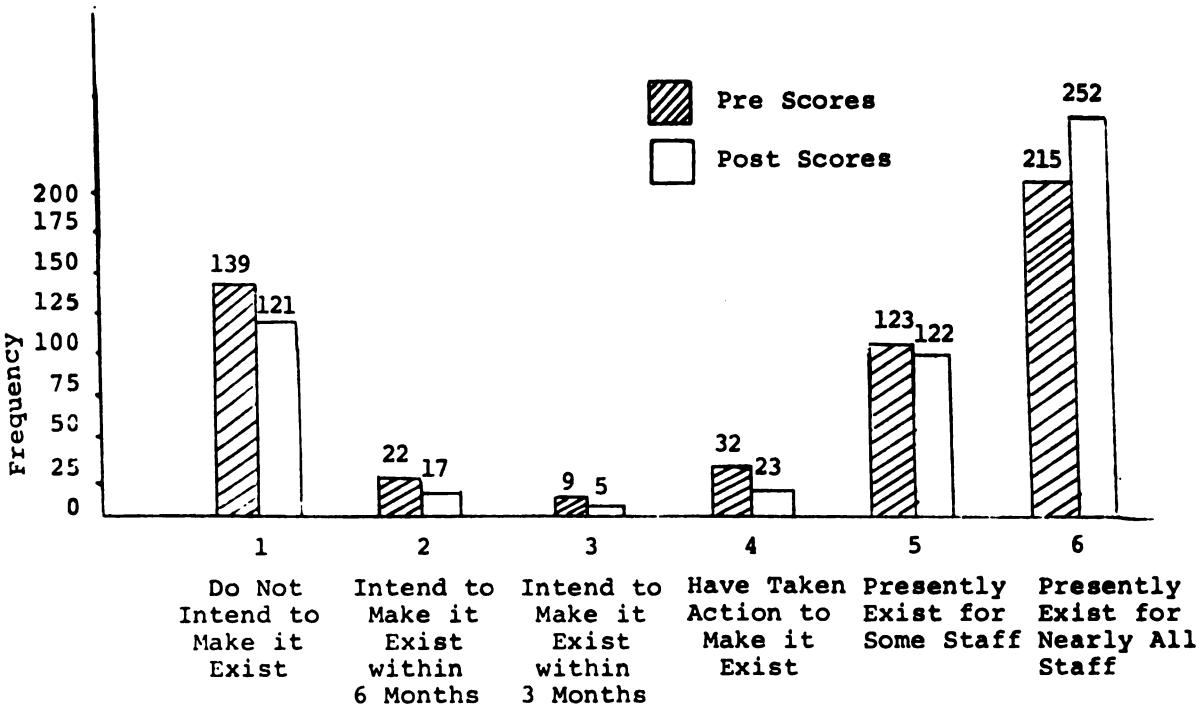

Figure 1.--Pre and Post Scores for Initiation of Change on Environment.

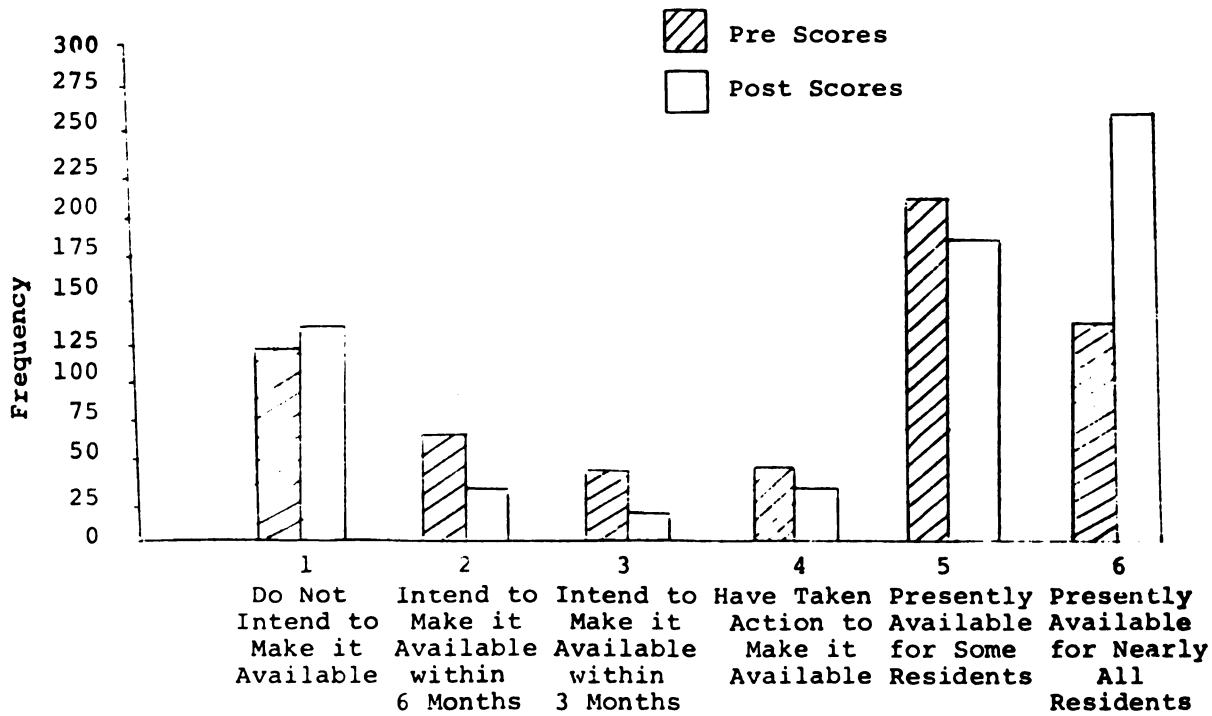

Figure 2.--Pre and Post Scores for Initiation of Change on Program.

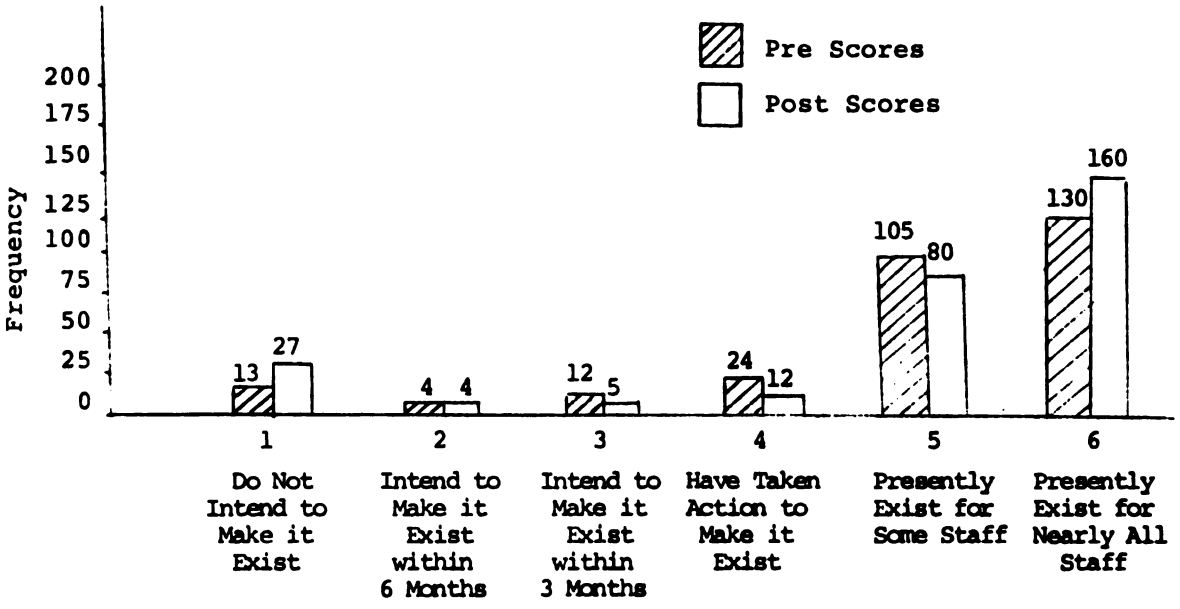

Figure 3.--Pre and Post Scores for Initiation of Change on Staff Behavior.

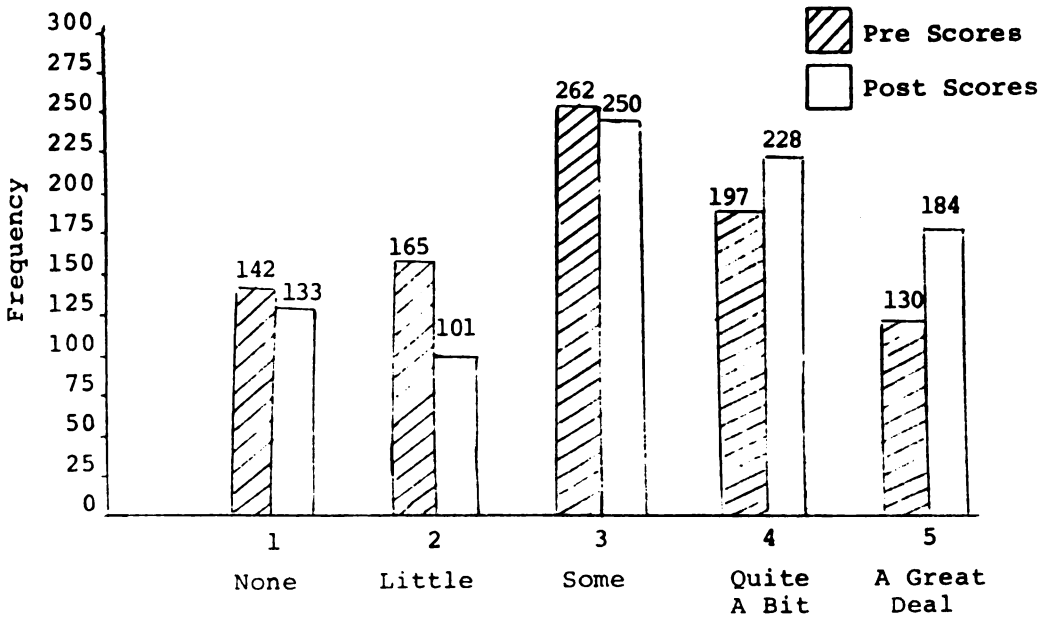

Figure 4.--Pre and Post Scores for Initiation of Change of Behavior for Specific Levels of Staff and Patient Behavior.

TABLE 26.--Means and Standard Deviations of the Ten Significant Variables

Variable	Nursing Homes			Hospitals		
	Cell	Mean	Standard Deviation	Cell	Mean	Standard Deviation
Out of hospital & nursing home followup	1	2.000	2.000	4	5.429	.534
	2	1.800	1.303	5	4.375	1.597
	3	2.000	2.000	6	5.000	1.690
Visit potential placement facility	1	4.250	2.217	4	5.714	.488
	2	4.800	2.168	5	6.000	.535
	3	2.250	1.893	6	5.375	.518
Private rooms	1	5.750	.500	4	2.142	1.952
	2	5.400	.548	5	4.125	1.885
	3	2.250	.577	6	3.125	2.031
Housekeeping	1	3.750	1.893	4	5.000	.535
	2	1.200	.447	5	5.420	1.852
	3	4.250	2.217	6	5.250	.707
Staff resident decision board	1	5.000	.816	4	3.857	2.035
	2	5.000	2.236	5	4.125	2.357
	3	5.000	2.000	6	3.375	2.066
Street clothes	1	2.750	2.062	4	5.857	.378
	2	3.400	2.303	5	4.625	2.264
	3	4.250	2.217	6	6.000	0.000
Involvement in mail & telephone tasks	1	4.250	2.217	4	3.000	2.138
	2	4.400	1.949	5	4.000	1.690
	3	5.250	.957	6	4.500	1.512

TABLE 26.--Continued

Variable	Nursing Homes			Hospitals		
	Cell	Mean	Standard Deviation	Cell	Mean	Standard Deviation
Physical therapist's influence on resident treatment	1	4.000	1.550	4	1.714	.951
	2	3.400	4.894	5	2.750	1.165
	3	4.000	1.555	6	2.375	.916
Role of friends	1	2.250	.951	4	4.000	.976
	2	4.000	1.000	5	3.427	.756
	3	3.000	1.826	6	3.625	1.061
Role of homemaker	1	2.750	.500	4	3.143	.899
	2	2.600	.548	5	3.875	.834
	3	4.000	1.414	6	3.750	1.035

* Score ranges from 1 to 6 goes from no adoption to complete adoption

CHAPTER IV

ASSOCIATIVE RESULTS

It is now important to examine the data from two perspectives: (1) degree of fit between the rationally determined dimensions and their experimental counterparts and (2) the degree of relationship between all areas of measurement in the study.

Examining Empirical Dimensions from Rationally Selected Dimensions

The preceding section presented experimental comparisons on four selected variables. It is now important to discover whether or not these rationally created dimensions are empirically valid. The BCTRY cluster analysis program (Tryon and Bailey, 1970) was used to determine empirical domains within the following rationally chosen dimensions: (1) information dissemination, (2) formation of planning groups, (3) initiation of change in the environment, (4) initiation of change in programs, (5) initiation of change in staff variables, (6) workshop effectiveness and perception of the innovation and (7) organizational variables.

Information Dissemination

The first dimension of interest was information dissemination. The cluster analysis on the variables in

this dimension generated three clusters as shown in Table 27. As seen in Table 28 these clusters appear to be relatively unrelated to one another.

Cluster 1: (Little Difficulty in Presenting Information).--This cluster is comprised of items relating to overall difficulty in information presentation as well as specific areas of presentation difficulty including staff role, environmental and program information.

TABLE 27.--The Three Clusters on Information Dissemination

Cluster	Loading
Cluster 1.--Little Difficulty in Presenting Information	
1. Less difficulty presenting information to other staff	.89
2. Less difficulty presenting staff information to other staff	.84
3. Less difficulty presenting program information to other staff	.70
4. Less difficulty presenting environmental information to other staff	.51
Cluster 2.--Use of Training Material	
1. Staff actually obtained training series	.91
2. Staff ordered training series	.75
3. Staff ordered films	.73
4. Staff actually obtained films	.52
5. Staff used films and filmstrips	.44
6. Greater number of people received information	.41
Cluster 3.--Information Dissemination and Positive Staff Reaction	
1. Positive staff reaction to program information	.80
2. Positive staff reaction to physicial environment information	.70
3. Positive staff reaction to staff information	.62
4. Greater extent to which information discussed	.55
5. Meeting called to disseminate information	.43

TABLE 28.--Correlations Between Oblique Cluster Domains for Information Dissemination

	1	2	3
1. Little difficulty in presenting information		-.16	.17
2. Use of training material	-.16		.27
3. Information dissemination and positive staff reaction	.17	.27	

Cluster 2: (Use of Training Material).--The degree to which staff initiated efforts to use the training series and films is descriptive of this cluster. Two types of efforts are included in the cluster. The first is whether the staff wrote out that he had ordered the film or training series and the second is a record from the Institute of Gerontology of actual purchase or rental of materials. In addition the variable greater number of people receiving information was included in the cluster.

Cluster 3: (Information Dissemination and Positive Staff Reaction).--Staff's positive reaction to program, staff and environmental information along with the extent the information was discussed are descriptive of this cluster.

When the information dissemination dimension is viewed from a cluster analytic perspective, three relatively unrelated dimensions emerge. Information dissemination

thus does not appear to be a unitary concept, but rather comprised of three separate dimensions.

Planning Group Formation

The planning group variables emerged as one cluster as shown in Table 29. This finding indicates that the activities of the planning group appear to be highly interrelated.

TABLE 29.--The One Cluster on Planning Group Formation

Cluster	Loading
Cluster 1.--Planning Group Staff Involvement and Decision Making	
1. More different levels of staff involvement in decision making	.98
2. Higher attendance in planning group	.98
3. Existence of a planning group	.98
4. Little turnover of staff in planning group	.97
5. Lower mean staff position in planning group	.94
6. More staff work together in same area	.89
7. More staff meet informally	.86
8. Staff meet more often	.83
9. Longer planning group meetings	.81
10. Lower staff position of the group leader	.79
11. Many staff involved in planning group	.62

Environmental Change

One cluster emerged from the environmental change outcome variables. An examination of the items in the cluster shows that the cluster appears to be descriptive of the access to facilities and equipment that the residents have. Thus, it appears that the environmental variables have one major dimension relating to the availability of facilities and equipment to residents.

TABLE 30.--The One Cluster on Environmental Change Outcome Variables

Cluster	Loading
Cluster 1.--Residents Access to Facilities and Equipment	
1. Provision of cooking facilities	.80
2. Provision of sewing and mending equipment	.66
3. Provision of grooming materials	.50
4. Provision of laundry facilities	.50

Program Change

The cluster analysis of program change variables produced three relatively unrelated clusters. The variables in each cluster are shown in Table 31 and the relationship between cluster domains are shown in Table 32.

Cluster 1: (Crafts and Consumer Role for the Resident).--This cluster is comprised of the variable, availability of crafts program, and the variable, provision for residents to purchase their own clothing.

Cluster 2: (Self Help Programs).--This cluster is descriptive of variables relating to developing self help skills and independence. The provision of music therapy is also included in this variable. Perhaps music therapy can be thought of as a method to help residents work toward self help skills.

Cluster 3: (Resident Decision Making).--A formal decision making body for residents and some power to make decisions on hygiene practices of self care are descriptive in this cluster.

The program change variables, unlike the environmental variables which formed one cluster, form three relatively unrelated concepts. Thus in examining program variables in the future, the investigator may wish to consider studying programs in these three dimensions.

TABLE 31.--The Three Clusters on Program Change Outcome Variables

Cluster	Loading
Cluster 1.--Crafts and Consumer Role for the Resident	
1. Provision crafts program	.85
2. Provision for residents to purchase own clothing	.81
Cluster 2.--Self Help Programs	
1. More teaching of residents in self care skills	.77
2. More plans for outings	.67
3. More group planning in preparation to return to community living	.65
4. More programs for the disoriented	.58
5. Provision of music therapy	.41
Cluster 3.--Resident Decision Making	
1. Provision of staff-patient governing board	.86
2. High staff involvement in out of hospital follow-up	-.64
3. More choice about bathing time and change of clothing	.59
4. Provision of patient governing board	.48

TABLE 32.--Correlation Between Oblique Cluster Domains for Program Variables

	1	2	3
1. Crafts program and provision for resident consumer role		.11	.14
2. Programs oriented for self help	.11		.16
3. Resident decision making	.14	.16	

Staff Role Change

Two clusters emerged from the cluster analysis on staff variables. Table 33 describes each cluster and Table 34 provides the cluster correlation matrix.

Cluster 1. (Staff Decision Making on Resident Treatment).--Cluster 1 contains variables relating to staff decision making about resident treatment and staff involvement in resident teaching.

Cluster 2. (Support Staff Involvement with Resident Treatment).--This cluster is descriptive of the involvement staff who are not housed on the ward have with residents.

It is evident that these two dimensions have been determined by the social status of the staff who are involved in the treatment of the elderly, rather than being determined by specific types of resident roles available in their institutions. Table 30 shows that these two clusters are not related.

TABLE 33.--The Two Clusters on Staff Role Change Outcome Variables

Cluster	Loading
Cluster 1.--Staff Decision Making on Resident Treatment	
1. Higher involvement of attendents in decisions about resident treatment	.99
2. Higher involvement of aides in decisions about resident treatment	.85
3. More shared decision making by staff	.74
4. More regular staff meetings held	.71
5. Higher involvement of teaching role by attendent	.70
6. Higher staff involvement in teaching basic skills	.64
7. Higher staff involvement in planning individual treatment programs	.60
8. More staff take residents on shopping trips	.52
9. Higher involvement in teaching role by aide	.58
10. Provision of worker role for residents	.50
Cluster 2.--Support Staff Involvement with Residents	
1. More staff wear street clothes	.81
2. More influence on resident treatment by physical therapists	-.78
3. More involvement of teaching role by social worker	.65
4. More influence on resident treatment by occupational therapist	-.55
5. More involvement in teaching role by physical therapist	-.42

TABLE 34.--Correlation Between Oblique Cluster Domains for Staff Variables

	1	2
Staff decision making on resident treatment		.09
Support staff involvement with residents	.09	

Workshop Effectiveness and Perception of Innovations

The cluster analysis on workshop effectiveness and perception of innovation variables generated three clusters which appear to be fairly unrelated as shown in Table 36. The variables included in each cluster are listed in Table 35.

Cluster 1: (Perception of Implementation Difficulty).--This cluster includes variables which are descriptive of the leader's perception of how difficult implementation of the innovation would be with respect to degree of rule change, role change, program change and amount of persuasion necessary to initiate change.

Cluster 2: (Staff Roles and Program Agreement).--This cluster includes variables of leader's personal agreement about the information presented on staff and programs at the workshop. In addition the variable concerning the intent of ordering the training series is included.

Cluster 3. (New Program and Agreement on Physical Environment).--This cluster contains the variable on how descriptive of a new program the information presented at the workshop was and the leader's personal agreement about the information on physical environment.

TABLE 35.--The Three Clusters on Workshop Effectiveness and Perception of Innovations

Cluster	Loading
Cluster 1.--Perception of Difficulty for Implementation	
1. Leader perceives lower degree of rule change required	.94
2. Leader perceives lower degree of difficulty in persuasion of staff to accept innovation	.90
3. Leader perceives lower degree of role change required	.90
4. Leader perceives lower degree of program change required	.60
Cluster 2.--Staff Roles and Program Agreement	
1. Plan to order training series	.77
2. Higher personal agreement about programs	.69
3. Higher personal agreement about staff roles	.50
Cluster 3.--Descriptive of New Program and Agree on Physical Environment Information	
1. More descriptive of a new program	.68
2. More personal agreement about physical environment	.63

TABLE 36.--Correlation Between Oblique Cluster Domains for Workshop Effectiveness and Perception of Innovations

	1	2	3
1. Perception of difficulty for implementation		-.10	-.15
2. Agreement about staff roles and programs	-.10		.16
3. Descriptive of new program and agree on physical environment information	-.15	.16	

Organizational Variables

The eight clusters obtained from the cluster analysis of organizational variables appear on Table 37. The clusters provide specific dimensions descriptive of the organization's staffing, residents and operations.

Cluster 1: (General Facility Meeting).--This cluster is descriptive of the general facility meeting with respect to the staff who attend and attendence. Also included in this cluster is the variable on leader's involvement with staff training. This cluster appears to be relatively uncorrelated with other clusters with the exception of two clusters. Cluster 5, which is descriptive of funding and focus correlates -.35 with this cluster. Cluster 7 which includes variables on prior participation in institutes correlates -.31 with this cluster.

Cluster 2: (Area Staff Meeting).--This cluster is descriptive of area staff meetings and staff involvement in program planning and direct services for residents. Although this cluster correlates .39 with cluster 8, which describes staff turnover, the correlation with the other clusters is negligible.

Cluster 3: (Prior Participation in 5 Day Workshop). --Variables relating to the number of former workshop participants are included in this cluster. A longer period of stay in the work area is also included in this cluster. This cluster is highly related to the cluster on prior 14-week institute participation and is otherwise unrelated with the other clusters.

Cluster 4: (Resident's Stay, Facility's Existence, and New Programs).--Cluster 4 contains variables reflecting length of resident's stay, length of facility's existence and the existence of new programs. With the exception of a .33 correlation with cluster 8, staff turnover, it is fairly unrelated with the other clusters.

Cluster 5: (Facility's Funding and Focus).--This cluster describes the facility's goals with respect to release of residents, density of elderly in the facility and how the organization is funded. It appears that privately funded organizations relate with higher incidence of elderly and more focus in providing a permanent residence

for their occupants. This cluster is correlated -.34 with cluster 7, prior 14-week institute participation.

Cluster 6: (Ambulatory Residents).--This cluster generally indicates incidence of ambulatory residents in the general facility and work area. This cluster is negligibly related with other clusters in this domain.

Cluster 7: (Prior Participation in 14-Week Institutes).--This cluster describes the kind and the degree of participation of staff in previous institutes and describes the training accumulated by the leader. This cluster is highly related with cluster 3, prior workshop participation.

Cluster 8: (Turnover of Staff).--This cluster is descriptive of the degree of staff turnover. This cluster correlates .39 with cluster 2, area staff meeting, and .33 with cluster 4, resident's stay and new programs.

TABLE 37.--The Eight Clusters on Organizational Variables

Cluster	Loading
Cluster 1.--General Facility Meeting	
1. Higher staff attendance of general meetings	.96
2. Lower mean staff position for those who attend the meetings	.94
3. Existence of general facility meetings	.71
4. More involvement in staff training by leader	.43
Cluster 2.--Area Staff Meetings	
1. Lower mean staff position of those who attend work area meetings	.69
2. Existence of work area staff meetings	.57
3. More involvement in program planning by leader	.53
4. More involvement in direct service by leader	.48
5. More staff involved in program planning	.48
Cluster 3.--Prior Participation in 5-day Workshops	
1. Lower mean staff position of those who attended previous 5-day workshops	.97
2. Sent participants to prior 5-day workshops	.88
3. More staff participated in previous 5-day workshops	.83
4. Longer period of stay in work area by staff	.26
Cluster 4.--Length of Resident's Stay and Program Development	
1. Longer resident stay in work area	.93
2. Longer resident stay in total facility	.82
3. Longer existence of total facility	.82
4. Existence of new programs	.61
5. Leader's involvement in the new program	.53

TABLE 37.--Continued

Cluster	Loading
Cluster 5:--Facility's Funding and Focus	
1. Privately funded facility	-.77
2. State funded facility	.77
3. Higher incidence of elderly in total facility	-.63
4. More focus on release of residents in work area	.58
5. More focus on release of residents in total facility	.51
6. Higher incidence of elderly in work area	-.32
Cluster 6:--Ambulatory Residents	
1. Higher incidence of ambulatory residents in work area	.87
2. Higher incidence of ambulatory residents in total facility	.81
Cluster 7:--Prior Participation in 14-Week Institute	
1. Lower mean staff position of those who attended previous 14-week institutes	.92
2. Higher staff attendence of previous 14-week institutes	.91
3. Sent participants to previous 14-week institutes	.89
4. More long term training accululated by leader	.44
Cluster 8:--Turnover of Staff	
1. Less staff turnover in work area	.97
2. Less staff turnover in total facility	.90

TABLE 38.--Correlation Between Oblique Cluster Domains for Organizational Variables

		1	2	3	4	5	6	7	8
1.	General Facility Meeting		.08	-.14	-.21	-.35	-.24	-.31	.19
2.	Area Staff Meetings	.08		-.07	-.15	.06	-.14	-.05	.39
3.	Prior Participation in 5-Day Workshops	-.14	-.07		.03	.14	.27	.68	.14
4.	Length of Resident's Stay and Program Development	-.22	-.15	.03		.10	.10	.23	.33
5.	Facility's Funding and Focus	-.35	.06	.14	.10		.09	.34	.03
6.	Ambulatory Residents	-.24	-.14	.27	.10	.09		.23	-.08
7.	Prior Participation in 14-Week Institutes	-.31	-.05	.68	.23	.34	.23		.17
8.	Turnover of Staff	.19	.39	.14	.33	.03	.08	.17	

Relationships Between Empirically Determined Dimensions

All variables which obtained a .40 loading or more with the cluster and variables which were labeled definers from the previous cluster analyses (Tryon and Bailey, 1970) were included in the final cluster analysis. This final cluster analysis produced nine clusters (Table 39).

Cluster 1. (Planning Group Outcome Measures)

The variables in this cluster are concerned with describing the planning group members and process. This cluster's relationship was negligible with other clusters with the exception of cluster 5 which is concerned with staff's teaching role.

Cluster 2. (Staff Involvement in Patient Treatment Decisions Outcome Measures)

This cluster is concerned with the staff's involvement in decision making about patient treatment. This cluster reveals that there appears to be a high relationship between high involvement of lower social status staff in resident treatment decisions and high shared decision making and more regularly held meetings. This cluster is highly related to cluster 5, staff involvement in teaching role.

Cluster 3. (Organization Variables and Environmental Outcome Measures)

Cluster 3 reveals a high relationship between organizational variables such as long term resident stay in the facility, longer existence of the facility and existence of new program with some environmental outcome variables. This cluster relates negatively with cluster 9 which involves implementation difficulty. The negative relationship is interpreted as organizations with long term residents, longer period of existence and new programs perceive it difficult to implement the innovation.

Cluster 4. (Perception of the Innovation and Program-Staff Outcome Measures)

As in the previous cluster analysis items involving the leader's perception of the innovation remain highly related. The present cluster dimension now includes program and staff outcome measures with fairly high relationship to the perception of innovation items.

Cluster 5. (Staff Involvement in Teaching, Resident Treatment and Training Outcome Measures)

Items in this cluster relate to staff matters. They include staff involvement in teaching, involvement in resident treatment and long term training. This cluster is relatively highly related to the other cluster involving staff decision making, cluster 2.

Cluster 6. (State Hospitals and Staff-Program Outcome Measures)

This cluster appears to be descriptive of a state supported hospital with high staff involvement in out of hospital follow-up and social worker involvement in decision making and lesser existence of a staff patient governing board. This cluster is negatively related to cluster 7, general facility meeting.

Cluster 7. (General Facility Meeting)

This cluster describes the members and attendence of general facility meetings. This cluster is negligibly correlated to other clusters with the exception of cluster 6, which is descriptive of state hospitals.

Cluster 8. (Prior Contact with the Institute of Gerontology Training)

This cluster is descriptive of the staff's previous contact with the institute's training programs. The relationship between this cluster and other clusters are negligible. This finding indicates that there is little relationship between prior training given by the institute and outcome measures of adoption.

Cluster 9. (Implementation Difficulty)

Items in this cluster relate to the leader's perception of why actual implementation of programs and environmental changes were difficult. This cluster differs with the cluster involving leader's perception of the innovation in that the leader's perception was obtained before the leader ever tried to implement the innovation and the implementation difficulty measure was obtained in the follow-up. This cluster relates negatively with cluster 3, which is concerned with long term residents, long existence of facility, existence of new programs and some environmental outcome variables.

The clusters produced from all of the empirically determined dimensions reveal several pertinent relationships and non-relationships. First of all with the exception of the planning group items which remained as one dimension, outcome measures on the environment, programs, and staff were distributed over several dimensions. This result shows the specificity of the environment, program and staff outcome measures. Thus implementation of one aspect of the program does not imply that other features of the program would be adopted.

Secondly, the analysis provided information about relationships between certain organizational variables and some outcome measures. For example, cluster 3 shows that

organizational variables such as length of resident stay, length of facility's existence, existence of new program relates to outcome measures such a less likely to provide for a small dormitory, provide for sewing and mending equipment, and intent to order the training series. Cluster 6, another example, provided information showing the relationship between state hospital variables and certain program and staff variables.

Thirdly, the intercorrelations between clusters clearly shows that there is little relationship between outcome measures and the prior experience of training at the institute. Thus although prior training was rationally thought to be influential on the outcome measures, this though was not empirically validated.

TABLE 39.--The Nine Clusters in the Implementation Study

Cluster	Loading
Cluster 1.--Planning Group Outcome Measures	
1. High staff attendence in planning group meetings	.98
2. Lower turnover of staff in planning group	.98
3. Lower mean staff position in planning group	.96
4. Planning group meets informally	.85
5. Lower staff position of the group leader	.83
6. Longer planning group meetings	.83
7. More staff involved in planning group	.63
8. Positive staff reaction to program information	.41
Cluster 2.--Staff Involvement in Patient Treatment Outcome Measures	
1. High involvement of attendents in resident treatment decisions	.99
2. High involvement of aide in resident treatment decision	.98
3. High staff shared decision making	.65
4. More regular meetings held	.63
5. High resident involvement worker role	.53
6. High staff involvement in taking residents on shopping trips	.49

TABLE 39.--Continued

Cluster	Loading
Cluster 3.--Organizational Measures and Environmental Outcome Measures	
1. Provision of a small dorm (outcome)	-.55
2. Provision of sewing and mending equipment (outcome)	.54
3. Plan to order training series (outcome)	.50
4. Longer resident stay in work area	.92
5. Longer resident stay in total facility	.82
6. Longer existence of facility	.79
7. Existence of new programs	.65
8. Higher personal agreement about programs by the leader	.52
Cluster 4.--Perception of the Innovation and Program-Staff Outcome Measures	
1. Higher staff involvement in teaching basic skills (outcome)	.69
2. Higher staff involvement in planning individual treatment programs (outcome)	.66
3. Provision of grooming materials (outcome)	.66
4. Higher resident autonomy about bathing and change of clothing (outcome)	.58
5. Leader perceives lower degree of rule change required	.93
6. Leader perceives lower degree of persuasion required	.92
7. Leader perceives lower degree of role change required	.87
8. Leader perceives lower degree of program change required	.58
9. Higher agreement on effectiveness of workshop presentation	-.45
10. Higher incidence of ambulatory residents in total facility	.37

TABLE 39.--Continued

Cluster	Loading
Cluster 5.--Staff Involvement in Teaching, Resident Treatment and Training Outcome Measures	
1. Higher attendent involvement in teaching role	.96
2. Higher nurse involvement in teaching role	.71
3. Higher degree of long term training of leader	.49
4. Higher social worker involvement in decisions about resident treatment	.37
Cluster 6.--State Hospitals and Staff-Program Outcome Measures	
1. Higher staff involvement in out of hospital follow-up (outcome)	.74
2. Higher social worker involvement in decisions about resident treatment (outcome)	.60
3. Existence of a staff patient governing board	-.33
4. Privately funded facility	-.88
5. State funded facility	.88
Cluster 7.--General Facility Meeting	
1. Lower mean staff position of those who attend general facility meetings	.93
2. Higher staff attendence of general meetings	.86
3. Existence of general facility meetings	.77

TABLE 39.--Continued

Cluster	Loading
Cluster 8.--Prior Contact with Institute of Gerontology Training	
1. Higher staff attendence of previous 5-day workshops	.99
2. Higher staff attendence of previous 14-week institutes	.77
3. Lower mean staff position of those who attended previous 14-week institute	.72
4. Lower mean staff position of those who attended previous 5-day workshops	.69
Cluster 9.--Implementation Difficulty	
1. Higher degree of difficulty to implement programs because of state regulations	.86
2. Higher degree of diffuculty to implement environmental change because of state regulations	.85
3. Higher degree of diffuculty to implement programs because of lack of funds	.78

TABLE 40.--Correlation Between Oblique Cluster Domains for the Implementation Study

	1	2	3	4	5	6	7	8	9
1. Planning Group Outcome Measures		.29	.28	.25	.33	.00	-.07	-.04	-.10
2. Staff Involvement in Patient Treatment Decisions Outcome Measures	.29		.19	.32	.51	-.09	-.28	-.05	
3. Organizational Variables and Environmental Outcome Measures	.28	.19		.02	.05	.06	-.14	-.14	-.45
4. Perception of the Innovation and Program-Staff Outcome Measures	.25	.32	.02		.30	.15	-.17	.08	.05
5. Staff Involvement in Teaching, Resident Treatment & Training Outcome Measures	.33	.51	.05	.30		-.29	.08	-.21	-.09
6. State Hospital & Staff-Program Outcome Measures	.01	-.09	.06	.15	-.02		-.43	-.20	-.29
7. General Facility Meetings	-.07	-.08	-.14	-.17	.08	-.43		-.14	.13
8. Prior Contact with the Institute of Gerontology Training	-.04	-.28	.17	.08	-.21	.20	-.14		-.13
9. Implementation Difficulty	-.10	-.05	-.45	.05	-.09	-.29	.13	-.13	

CHAPTER V

DISCUSSION

The results of the tests of the experimental hypotheses and the relationships between the dimensions involved in the implementation of the innovation will be discussed in this chapter. In addition the limitations of the study and the implications for future research will be examined.

Experimental Hypotheses

The three major areas of implementation which experimental hypotheses were tested include: (1) information dissemination, (2) formation of planning groups and (3) the degree of actual initiation of change.

Table 2 showed that there were no significant differences between treatment groups with regard to the number of staff receiving the information. Thus the number of people receiving the information is not significantly affected by the number of staff who received telephone consultations over a period of time. The additional tests on whether the treatment affected use of various methods of information dissemination showed that telephone consultations did not affect the use of the various techniques for information dissemination. Although conversation as a method of information dissemination was found to be

significantly affected by the treatment, it was only one significant test out of seven tests which does not provide for an overall test of significance at the .05 level (Sakoda et al., 1954).

The second hypothesis concerned the formation of planning groups. A chi-square test on the formation of planning groups did not reach the .05 level of significance, However, a median test of the number of staff involved in the planning groups showed that there was a significant ($p<.01$) difference between treatment groups (Table 10). This result suggests that continuous contact with these staff members in the organization increases the number of people involved in planning groups. An examination of the data in Table 10 indicates that there appears to be little difference between the no contact group and the one contact group, but the difference lies between the three person contact situation and the other two groups. There were no significant differences between treatment groups on mean social status of staff in the planning group, the frequency of meetings, the length of meetings, attendence, turnover, participatory decision making, number of staff levels in the group and informal meetings. Table 12 shows that the analysis of variance on the leader's social status reached the significance level of .05 for the treatment effect. Examination of the data shows that the three person contact

treatment condition had more leaders of lower social status than the no person contact and one person contact treatment conditions. Furthermore, the one person contact treatment condition had more staff of a higher social status than the other two groups. This finding suggests that contacting more staff increases and supports the active participation of lower level staff members in leadership roles and that perhaps contacting of one staff enhances containing leadership at the higher social status level. The chi-square test on whether there was any difference with regard to staff working in the same area indicated a significant difference between the treatment conditions. Table 19 shows that the three person contact situation drew members from other work areas for their planning group more than in the other two treatment conditions. These three significant results out of the twelve tests run on planning group outcome variables gives an overall significance at the .05 level according to the table provided by Sakoda and his colleagues (1954). Although Table 18 shows that there was a significant difference between institutions on the number of staff levels involved in the planning, this must be interpreted cautiously since only one out of the twelve tests does not reach .05 significance level for a series of independent tests.

A third hypothesis concerned the degree of actual change. The analyses of covariance to determine whether there were any significant differences between treatments as shown in Table 21 indicate that there were no significant differences between treatments for the overall test for significance. This suggests that the treatment of telephone consultations was not powerful enough to create changes although the treatment contributed to the increase in membership in the planning groups, lower social status members involved as leaders, and involvement of staff from different work areas in the planning groups. Perhaps a more direct and personal type of contact such as face-to-face site visits may be more effective in initiating complex changes. The length of time allowed before follow-up data was collected may also have influenced this result. It is possible that change could occur at some later time and the formation of planning groups could be a step toward actual initiation of change.

Another possible reason for the lack of treatment effects on actual initiation of change may be attributed to the distribution of the change scores. As seen in Appendix I, many variables appear to have either a high frequency on the upper part of the scale or a high frequency on the lower part of the scale, thus producing a ceiling and/or a basement effect for change. Figures 1, 2 and 3 show show a J distribution with a high frequency on total adoption anda somewhat

high frequency on no change to be initiated. The organizations in the study may have already adopted many of the items of change and thus created a ceiling effect for change. This finding suggests that perhaps the training should be limited to organizations who have not already adopted major portions of the program.

Complexity of the innovation may be a vital factor influencing adoption as some studies have implied. For example an implementation study involving consumer environmental social action found that adoption of practices which were not complex, such as placing a brick in the toilet, was significantly influenced by newsletters and telephonic prods (Lounsbury, 1973). This present study involves adoption of practices requiring role change and some change in organizational structure. The more complex nature of this innovation in comparison to the environmental action study may have been a factor in determining why telephonic consultation did not create change in the health organizations, while telephone prods with newsletters affected change in consumer behavior. A more complex innovation in contrast to the two preceding examples is the adoption of a community living program which requires considerable staff and organizational changes. The complex changes in roles and organizational structure probably influenced the high frequency of organizations showing the lack of initiation toward adoption. (Fairweather et al., 1973). With respect to the distribution

regarding social change, the Fairweather study (1973) showed an adoption distribution similar to the J-distribution where there was a high frequency of no adopters and a small population of complete adopters. In contrast, this particular study's results displayed a J-distribution completely the opposite of the Fairweather distribution, with a high frequency of complete adopters and a smaller frequency of non-adopters. It is interesting to note that as Figures 1, 2 and 3 indicate the J-distribution was consistent for the environmental, staff and program change items.

Table 21 shows that there was a significant difference between nursing homes and hospitals. The nursing homes and hospitals varied in degree of implementation for the ten significant variables. The cell means for nursing homes and hospitals as shown in Table 22 indicate that these ten variables appear to be distinguishing variables for the two types of organizations. Out of hospital follow-up, visits to potential placements, housekeeping duties, staff's use of street clothes, and the resident's opportunities to take the role of a friend and homemaker appear to be more prevalent in hospitals than nursing homes. The cell means indicate that nursing homes have more private rooms, staff resident decision boards, involvement of residents in mail and telephone tasks and involvement of physical therapists in resident treatment. This difference appears to be

descriptive of different organizational patterns in these two treatment institutions. These results suggest that training should be planned with consideration to these differences.

Overview of the Cluster Dimensions

The information dissemination variables formed into three relatively uncorrelated clusters. The degree of difficulty for information presentation, the use of training material and the extent of information dissemination and staff reaction to the information were three separate dimensions (Table 23). This finding suggests that researchers need to recognize these dimensions as separate factors when examining information dissemination in future studies. The high degree of relationships between all planning items, by contrast, indicate that the planning group variables form one dimension (Table 29).

The change variables produced several clusters. The environmental variables as seen in Table 30, have formed one cluster tapping the common underlying dimension, access to equipment and materials. The three clusters produced from program change variables are fairly uncorrelated. The three clusters are descriptive of (1) crafts and role of consumer, (2) self help programs and (3) resident decision making. Although, the cluster involving crafts and role of consumer

may be questionable as to its interpretation because it contains only two variables, the two other clusters appear to have drawn variables which can be rationally named.

The staff role variables produced two rational dimensions. Cluster 1 appears to measure staff decision making for resident treatment, and cluster 2 is descriptive of the involvement of staff who are not necessarily officed on the ward, in resident treatment decisions. These empirically created clusters provides dimensions which can be looked at in future studies involving initiation of change in hospitals and nursing home programs.

The clusters generated from workshop effectiveness and perception of innovations are fairly uncorrelated. All four variables which dealt with perception of innovations fell into one cluster. This implies that the items of rule, role and program change and persuasion belong in one dimension. The agreement of staff roles and programs and the intent to order the training series formed one cluster, whereas agreement on physical environment and the item descriptive of a new program fell into a separate cluster. This may indicate that the physical environment aspect of the innovation is the basic factor which made the program appear innovative to participants.

The organizational variables formed eight clusters. Of these eight clusters a few had fairly high relationships.

Although prior participation in 5-day workshops and institutes formed two separate clusters they were correlated .67 which shows a relatively high degree of relationship between them. Other dimensions include general facility meetings, area meetings, length of resident's stay and program development, funding and focus, ambulatory residents and staff turnover.

Final Cluster Analysis for All Empirical Dimensions

In order to obtain an overall picture of the relationships between all the empirically created clusters, a final cluster analysis on variables selected as definers of a cluster by the cluster analysis program and all variables with a loading of at least .40 were included in the final cluster analysis. This analysis produced nine dimensions which includes: (1) planning group outcome measures, (2) Staff involvement in patient treatment decision outcome measures, (3) organizational variables and environmental outcome measures, (4) perception of the innovation and program-staff outcome measures, (5) staff involvement in teaching, resident treatment and training outcome measures, (6) state hospitals and staff-program outcome measures, (7) general facility meetings, (8) prior contact with the Institute of Gerontology training and (9) implementation difficulty.

The final cluster analysis on all the empirically created dimensions provided some important relationships and lack of relationships. The first cluster, planning group outcome measures, showed that planning group variables belonged in one dimension. In addition examination of the relationship between the planning group cluster and clusters containing outcome measures show a weak relationship. This finding raises some questions if the formation of planning groups is considered to be an important part of the process before adoption of an innovation takes place. Perhaps, as it is later suggested, a further experiment should be conducted to examine whether planning groups that had formed led in any significant way to the adoption of this innovation even though the time lapse before the follow-up for this study may have been too brief.

The diffusion of the outcome measure involving staff, program and environment into several clusters shows that outcome items concerning these dimensions are quite independent of one another. Thus caution needs to be taken when assessing adoption of innovations as the adoption of one aspect of the innovation does not necessarily imply that all aspects retionally related to the innovation will be adopted.

The high relationship between items of perception of innovation suggests that they belong in one dimension. The items in that cluster (Table 37) indicate that certain staff and program outcome measures relate to the perception

that adoption of the innovation would not cause need for drastic changes in the organization. It is important to note also that this perception of how difficult the innovation would be to adopt is not highly related to the formation of planning or to the actual difficulty encountered when the adoption of the innovation was attempted. Perhaps the initial impression of the degree to which an innovation may be difficult to implement is not reflective of whether planning groups are formed or the degree of difficulty in implementation when it is actually attempted.

Finally prior training from the institute was not related to either planning group outcome or clusters containing other outcome measures. It seems that prior training thus has little influence over actual adoption or initiation toward adoption.

Limitations

The limitations of this study are numerous. Financial factors placed constraints on the nature of the treatment. The telephone consultations were limited to five instead of the originally planned six calls. The follow-up information was retrieved through a questionnaire mailout rather than telephone interviews or a site visit for economical reasons, although the latter two methods may have provided more accurate and comprehensive information. The funds also limited the number of organizations which were involved in the study.

The lack of administrative control over the participants contributed to the limitation of the study. The experimenter could not require commitment from participants who came to the workshops in order to eliminate passive observers. Also the type of workshop conducted could not be determined by the experimenter. The demonstration model with active participation of staff in actual work situation would have been preferred over the lecture model. The number of staff and the kind of staff who attended the workshop could not be controlled also. Thus there is no comparability over the type and number of staff who attended the workshop.

There were some difficulties concerning the treatment. First, although the treatment required consultations once every two weeks, maintenance of that frequency was difficult as staff took vacations and leaves during the summer and early fall, besides being called away to meetings. A suggestion for future attempts of telephonic consultations is that consultations be conducted after the vacation period. With the exception of two organizations, cooperation from staff to accept telephone consultations was possible, although reception to consultations on the fourth and fifth time ranged from enthusiastic to slightly hostile for being called. The two cases where treatment was difficult or impossible were in nursing homes. In one case the Mother Superior of

the house refused to allow names to be released for the three staff consultation treatment. This organization was eliminated from the study. The second example involved a leader who was hesitant in giving out names for fear that staff could not handle outside input into the organization.

It is important to recognize that the findings of this study are generalizable to volunteers only. The subjects volunteered first of all to come to the workshop and then those in the treatment conditions permitted the telephone consultations to continue.

Implications for Future Research

The results of this study have several different implications. A previous study of organizational change revealed that the use of action change agents led to organizational change which followed the process of information dissemination, formation of active planning groups and adoption (Fairweather et al., 1973). This particular study found that continuous, active telephonic advocacy created the involvement of more members in the planning groups with lower social status members taking active leadership roles and more involvement of staff from different work areas for planning. But initiation of change was not significantly different between the treatment groups.

The finding that telephonic contacts to more than one person creates planning group involvement has direct applicability in terms of providing an effective mechanism to actuate one essential link in the change process. The no treatment effect for change needs further study. In spite of the skewed distribution of pre and post scores, the degree of change created after the time of the follow-up may need to be examined in order to discuss the degree to which planning groups actuated change over a longer period of time. If no difference is found in the degree of actual change, then it is clear that initiation of change requires a stronger advocacy than this experiment attempted to test. Perhaps more action orientation and more personal contacts or another change agentry method such as economic contingencies need to be examined.

The significant differences found between nursing homes and hospitals in actual initiation of change suggest the need to examine the nature of the organizations which will utilize the innovation being advocated. For the items which differentiate the organizations, the change agent may want to tailor his consultation to meet these differences. For example, follow-up information may be inappropriate to get from nursing homes and should be eliminated from the presentation.

Finally the results of this study further confirms the need to create and test new change agentry methods to provide for a humanitarian mechanism of social change. The limited effectiveness of the telephonic advocacy clearly calls for testing of new models for change on the dimensions of intensity of change agentry and target organization interaction, degree of action orientation, and frequency of contact.

APPENDICES

APPENDIX A

PARTICIPANT INTERACTION

Appendix A

Name _____
Name of Facility _____

Participant Interaction

These questions will help determine how closely you work with the other participants in your hospital or nursing home who have come with you to this workshop.

1. Do you work with any of the staff who are here at the workshop?
_____ yes _____ no

   If no, list names of the staff here who do not work with you.

   _____ _____

   _____ _____

2. Do you work in the same wards with the staff who are here with you?
_____ yes _____ no

   If no, list names of the staff here who do not work with you on the same ward.

   _____ _____

   _____ _____

   If you work on separate wards, do you exchange or share staff between your wards? _____ yes _____ no If yes, list the names of the staff you share or exchange staff with.

   _____ _____

   _____ _____

3. Do you work in entirely separate buildings with the staff who are with you here at the workshop? _____ yes _____ no

   If yes, list the names of the staff who are located in separate buildings.

   _____ _____

   _____ _____

4. Do you and staff here with you work with the same patients or residents? _____ yes _____ no

   If no, list the names of the staff who do not work with the same residents or patients you work with.

   _____ _____

   _____ _____

5. Do you attend the same staff meetings with the staff who are with you at the workshop? _____yes _____no

If yes, list names of staff who attend the same meetings with you and how often you attend the meetings.

Name_____ _____

_____ _____

How often meeting held_____

APPENDIX B

DESCRIPTION OF SETTING

Name_____

Staff Position_____

Phone Number (work)_____Area Code____

Name of Facility_____

Description of Setting

Please complete each of the items as best as you can. Thank you.

1. What type of setting is your facility situated in? (check one)

____ a. Urban
____ b. Suburban
____ c. Rural

2. How long has your facility been in existence? (check one)

____ a. 0-9 years
____ b. 10-19 years
____ c. 20-29 years
____ d. 30-39 years
____ e. 40-49 years
____ f. 50 years or more

3.a. What percentage of the patients in your facility are composed of the elderly? (50 years and older) (check one)

____ a. 0-25%
____ b. 26-50%
____ c. 51-75%
____ d. 76-100%

3.b. What percentage of the patients you work with are composed of the elderly? (50 years and older) (check one)

____ a. 0-25%
____ b. 26-50%
____ c. 51-75%
____ d. 76-100%

4.a. What percentage of the elderly in your facility are ambulatory? (check one)

____ a. 0-25%
____ b. 26-50%
____ c. 51-75%
____ d. 76-100%

4.b. What percentage of the elderly you work with are ambulatory? (check one)

____ a. 0-25%
____ b. 26-50%
____ c. 51-75%
____ d. 76-100%

5. If you are from a nursing home what type of care are you involved with? (check one)

____ a. basic care
____ b. skilled care
____ c. both

6.a. What is the general focus for the elderly in your facility (entire home or hospital)? (check one)

____a. eventual release to return into the community.
____b. providing a place to live throughout their lives.
____c. both a and b

6.b. What is the general focus with the elderly that you work with? (check one)

____a. eventual release to return into the community.
____b. providing a place to live throughout their lives.
____c. both a and b

7.a. What is the approximate average stay of the elderly in your total facility (entire home or hospital)? (check one)

____a. less than one year
____b. 1 - 5 years
____c. 6 - 10 years
____d. more than 10 years

7.b. What is the approximate average stay of the elderly that you work with? (check one)

____a. less than one year
____b. 1 - 5 years
____c. 6 - 10 years
____d. more than 10 years

8. List the specialist and consultant types of staff resources (ex. social worker, psychiatrist, music therapist, etc.) that are available to the elderly <u>you work</u> with and the percentage of their work time that they spend working with the elderly.

Staff Resources	% of Work Time Spent
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

9.a. Has there been any great turnover of staff for the elderly in your total facility (entire hospital or home) in the last two years? (check one)

____a. a great deal
____b. quite a bit
____c. some
____d. a little
____e. nothing

9.b. Has there been any great turnover of staff for the elderly that you work with in the last two years? (check one)

____a. a great deal
____b. quite a bit
____c. some
____d. a little
____e. nothing

10.a. Do you have general staff meetings for the whole facility (entire hospital or entire home)? (check one) _____Yes _____NO

If yes, how often do you have them? (check one)

____a. once a week
____b. once a month
____c. once a year (Indicate
____d. other_____ how often)

Who attends the general meetings? (check all appropriate members)

____a. psychiatrists
____b. psychologists
____c. nurses' aides
____d. attendants
____e. nursing supervisor
____f. social worker
____g. medical doctors
____h. physical therapist

Please list any other staff members who attend the meetings.

_____

_____

_____

10.b. Do you have staff meetings in your own area (ward, entire hospital only if you work with patients in entire hospital)? (check one) _____Yes _____No

If yes, how often do you have them? (check one)

____a. once a week
____b. once a month
____c. once a year (Indicate
____d. other _____ how often)

Who attends your area (ward, entire hospital if you work with patients in entire hospital) meetings? (check all appropriate members)

____a. psychiatrists
____b. psychologists
____c. nurses' aides
____d. attendants
____e. nursing supervisor
____f. physical therapist
____g. social worker
____h. medical doctor

Please list any other staff members who attend the meetings.

_____

_____

_____

11. To what extent is your work involved with staff training? (check one)

____a. complete involvement
____b. moderate involvement
____c. some involvement
____d. little involvement
____e. no involvement

12. Who provides most of your funding to run the facility? (check all appropriate categories)

____a. federal government
____b. state government
____c. local government
____d. individaul residents/patients
____e. other (please indicate)_____

13. Who usually does the planning and deciding on new treatment programs (plans to enhance the social, physiological and mental being of the residents) for the elderly you work with? (list the staff-positions of those involved)

_____ _____

_____ _____

_____ _____

14. In the past 2 years have there been new programs for the elderly you work with? (check one)

_____Yes ____No

If yes, briefly describe it (them):

Are you currently involved in this new program(s)? _____Yes _____No

Please enclose a written description of the program if it is available.

15. To what extent is your work involved with planning of programs for patients/ residents? (check one)

____a. complete involvement
____b. moderate involvement
____c. some involvement
____d. little involvement
____e. no involvement

16. Did any other person from your facility (entire hospital or home) attend a 5-day workshop in milieu therapy at the Institute of Gerontology at Ypsilanti State Hospital?
(check one) _____Yes _____No

If yes, list their positions and how many of them attended.

Position	Number Attended
_____	_____
_____	_____
_____	_____

17. Did any other person from your facility attend the 14 week institute in milieu therapy at the Institute of Gerontology at Ypsilanti State Hospital?
(check one) _____Yes _____No

If yes, list their positions and how many attended.

Position	Number Attended
_____	_____
_____	_____
_____	_____

18. How did you learn about the milieu therapy program at the Institute of Gerontology? (check as many as applicable)

____a. journals or newsletters
____b. conferences
____c. staff in your facility
____d. staff from another facility
____e. former workshop or institute participant
____f. other (Indicate how)_____

19. Have you visited a setting where milieu therapy with the elderly was in operation? (check one) ____Yes ____No

If yes, where was it?_____

20. Please list the types of training you have had in health care or work with the elderly?

Also please list all the short term types of training you have had from workshops, institutes, etc.

21. To what extent is your work involved in administrative tasks? (check one)

____a. complete involvement
____b. moderate involvement
____c. some involvement
____d. little involvement
____e. no involvement

22. To what extent is your work involved in providing direct services or health care to the elderly? (check one)

____a. complete involvement
____b. moderate involvement
____c. some involvement
____d. little involvement
____e. no involvement

23. To what extent is your work involved with planning the physical environment (ordering equipment for leisure time activities, arranging furniture, etc) for the elderly you work with? (check one)

____a. complete involvement
____b. moderate involvement
____c. some involvement
____d. little involvement
____e. no involvement

24. How many years have you been working at this facility (hospital or home)?

_____

25. How many years have you held your present position at this facility? _____

26. How many years have you worked with the elderly? (50 years and older)_____

27. What would you particularly like to learn from the 5 day training program?

APPENDIX C

PHYSICAL ENVIRONMENT AND RESOURCES, PROGRAMING, STAFF AND PATIENT ROLES

Name_____

Facility_____

The following statements refer to the characteristics and practices of many hospitals, nursing homes and their like. For each of the statements place one check mark under the appropriate category for the area in which you actually work (ex. ward refers to the entire hospital or home if you work in the entire facility).

Please do not omit any of the items.

EXAMPLE: If private phones are available for some of your patients/residents you work with, place a check mark (✓) in the block that corresponds to "presently available for some residents".

Presently Available for All Residents	Presently Available for Some Residents	Have Taken Action to Make it Available	Intend to Make it Available within 3 Months	Intend to Make it Available within 6 Months	Do Not Intend to Make it Available

PHYSICAL ENVIRONMENT AND RESOURCES

Private phone in room		✓				

PHYSICAL ENVIRONMENT AND RESOURCES	Presently Available for Nearly All Residents	Presently Available for Some Residents	Have Taken Action to Make it Available	Intend to Make it Available within 3 Months	Intend to Make it Available within 6 Months	Do Not Intend to Make it Available
Home like living rooms, dining rooms , bedrooms						
Equipment for leisure time; example, pool table, TV						
Personal laundry facilities that are readily available and unlocked						
Cooking facilities that are readily available and unlocked						
Grooming materials that are readily available and unlocked						
Mending and sewing equipment that are readily available and unlocked						
Hair drying and washing facilities that are readily available and unlocked						
Non-institutional bathrooms (seats on toilets and doors)						
Large dormitories (about 15 beds per room)						
Small dormitories (about 2-4 beds per room)						
Private rooms						
Access to use of phone						
Store or snack shop run by residents/patients within hospital or home						
Readily available car or bus transportation						
[illegible] open to all areas of [illegible]						

PROGRAMMING	Presently Available for Nearly All Residents	Presently Available for Some Residents	Have Taken Action to Make it Available	Intend to Make it Available within 3 Months	Intend to Make it Available within 6 Months	Do Not Intend to Make it Available
Housekeeping: using housekeeping as treatment in which patients/residents are taught how to serve food, sweep and mop, etc.						
Work therapy in workshop setting: ex., putting car parts together, packaging parts						
Staff-Patient Governing Board for decision making in planning and problem mediation						
Patient Governing Board (consists of patients)						
Allowing patient choice about when to bathe and change clothing						
Patient Planning Group for return to community living						
Patient Planning Group for outings such as dinners, movies, shopping trips						
Taking own medication without supervision						
Patient/staff-group motivational techniques (ex. provide more meaningful tasks)						
Providing opportunities for patients to purchase own clothing						
Programming with the very disoriented: teaching time, day, how to relate to others						
Crafts program						
Music therapy						

PROGRAMMING	Presently Available for Nearly All Residents	Presently Available for Some Residents	Have Taken Action to Make it Available	Intend to Make it Available within 3 Months	Intend to Make it Available within 6 Months	Do Not Intend to Make it Available
Teaching patients to care for th[illegible] working clothes, ironing clothes, [illegible], choosing nutritious food, choosing appropriate clothing, caring [illegible].						
[illegible] Hospit[illegible] nursing [illegible] follow-up program						
[illegible]						
[illegible]						
Patient expressing [illegible] important [illegible]						

STAFF	Presently Exist for Nearly All Staff	Presently Exist for Some Staff	Have Taken Action to Make it Exist	Intend to Make it Exist Within 3 Months	Intend to Make it Exist within 6 Months	Do Not Intend to Make it Exist
Have regular staff meetings						
Decision-making on patient/resident treatment shared among entire staff (doctors, nurses, aides, attendants)						
Use street clothes instead of uniforms						
Frequently communicate among staff outside of formal meetings						
Involved patients in tasks such as picking up mail and answering the telephone						
Take role of instructor for teaching self-care skills to patients/residents						
Take patients/residents on shopping trips and interesting trips outside of the hospital or nursing home						
Plan individual patient treatment programs						

Staff Role

For Item 1 and 2 check one of the blocks to the right of each staff position.

1. How much influence do you think each of the following people in your area has in determining the patient treatment?

In the spaces following the listed staff position, fill in other staff positions that you have in your work area and check the appropriate blocks.

	A GREAT DEAL	QUITE A BIT	SOME	LITTLE	NONE
a. doctor (psychiatrist, M.D.)					
b. supervisor					
c. nurse					
d. nurse's aide					
e. attendants					
f. social worker					
g. occupational therapist					
h. physical therapist					
i. _____					
j. _____					
k. _____					

2. To what extent do the following staff take the teaching role to train residents/ patients basic skills? (using phone, making beds, washing clothes)

In the spaces following the listed staff positions, fill in other staff positions that you have in your work area and check the appropriate blocks.

	A GREAT DEAL	QUITE A BIT	SOME	LITTLE	NONE
a. doctor (psychiatrist, M.D.)					
b. supervisor					
c. nurse					
d. nurse's aide					
e. attendants					
f. social worker					
g. occupational therapist					
h. physical therapist					
i. _____					
j. _____					
k. _____					

3. To what extent do the doctor, nurses, aides, physical therapist, occupational therapist, and social worker that you work with meet as a group in planning for patient treatment? (check one)

___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

4. To what extent do you discuss staff problems at the staff meetings you attend? (check one)

___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

5. How much positive feedback is given among staff members that you work with? (ex. commenting on good work done.). (check one)

___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

6. How much critical feedback is given among staff members that you work with? (example, commenting on things staff members do wrong). (check one)

___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

Patient/Resident Role

1. To what extent are the patients/residents that you work with allowed to take or continue the following roles?

a. consumer (allows purchasing own clothing; coffee shop and store available for purchasing snacks; have easily accessible transportation so they may go out shopping) (check one)
___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

b. worker (contract work for pay, provide meaningful tasks, provide appropriate job breakdown) (check one)
___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

c. friend (patient/residents plan parties and social gatherings, card games, patients/residents plan outings). (check one)
___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

d. homemaker (patient/resident makes own bed, cleans area around his bed, irons and washes own clothes). (check one)
___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

e. citizen (allows patient/resident decision making governing board to determine the kinds of programs they would like and solve patient/resident grievances). (check one)
___ a. a great deal
___ b. quite a bit
___ c. some
___ d. little
___ e. none

APPENDIX D

WORKSHOP EFFECTIVENESS

Name_____

Name of Facility_____

WORKSHOP EFFECTIVENESS

1. Do you feel that the information from the workshop describes a new program of treatment for the elderly? (check one)
   ____ a. strongly agree
   ____ b. agree
   ____ c. neither agree nor disagree
   ____ d. disagree
   ____ e. strongly disagree

2. How effective do you think the workshop was in providing information about the milieu therapy program? (check one)
   ____ a. very effective
   ____ b. effective
   ____ c. neither effective nor ineffective
   ____ d. ineffective
   ____ e. very ineffective

3. Do you feel that in general the programs demonstrated can be easily adapted to your own setting? (check one)
   ____ a. strongly agree
   ____ b. agree
   ____ c. neither agree nor disagree
   ____ d. disagree
   ____ e. strongly disagree

4. How closely do you personally agree with the information presented in the workshop?

   1. changing physical environment (check one)
   ____ a. strongly agree
   ____ b. agree
   ____ c. neither agree nor disagree
   ____ d. disagree
   ____ e. strongly disagree

   2. new staff roles (check one)
   ____ a. strongly agree
   ____ b. agree
   ____ c. neither agree nor disagree
   ____ d. disagree
   ____ e. strongly disagree

   3. programs (special projects, planning groups, work therapy, music therapy) (check one)
   ____ a. strongly agree
   ____ b. agree
   ____ c. neither agree nor disagree
   ____ d. disagree
   ____ e. strongly disagree

5. How closely do you think your staff in your hospital/nursing home will agree with the information presented in the workshp?

1. changing physical environment (check one)
____ a. strongly agree
____ b. agree
____ c. neither agree nor disagree
____ d. disagree
____ e. strongly disagree

2. new staff roles (check one)
____ a. strongly agree
____ b. agree
____ c. neither agree nor disagree
____ d. disagree
____ e. strongly disagree

3. programs (special projets, planning group, work therapy, music therapy) (check one)
____ a. strongly agree
____ be.agree
____ c. neither agree nor disagree
____ d. disagree
____ e. strongly disagree

6. Would you recommend this workshop for staff in other facilities?
____ Yes ____ No

Comments:

7. Would you be interested in sending more members of your staff to subsequent 5 day workshops? _____ Yes _____ No

8. If we hold another workshop on milieu therapy what would you suggest that we do differently?

9. Do you think the training series as used in the workshop would be effective in training your own staff? (check one) _____ Yes _____ No

Do you hope to order the training series? _____ Yes _____ No

APPENDIX E

CHARACTERISTICS OF INNOVATIONS

Name_____

Name of Facility_____

Characteristics of Innovations

Directions. In this questionnaire we are interested in your opinion about how each of the milieu therapy practices would be rated in terms of the four characteristics: role change, rule change, program appropriateness, and persuation. Each of the following pages has the same list of milieu therapy practices. If the practice already exists with the residents/ patients you work with or the staff you work with, fill the blank preceding the item with the number six (6). For the other practices that do not exist in your setting, assign the appropriate number that would best describe the relationship of the practice with each of the four characteristics.

Persuasion

For each of the following milieu therapy practices assign one of the numbers to indicate the degree to which the practice is most easy to persuade other staff you work with to implement.

1 = most difficult to persuade
2 = difficult to persuade
3 = neither easy nor difficult to persuade
4 = easy to persuade
5 = most easy to persuade
6 = practice already exists.

____ Total staff involvement in decision making about patient treatment.

____ More home-like physical environment.

____ More leisure time equipment available.

____ Unlocked equipment for patient use (cooking facilities, ironing, mending material

____ Increase staff communication with patients on person to person basis.

____ Increase staff communication by setting regular meetings.

____ Work program - using meaningful contract work as treatment.

____ Work program - using meaningful housekeeping tasks as treatment.

____ Social interaction groups (ex. playing bridge, planning outings)

____ Set up a snack shop or store with residents running the shop or store.

____ Increase patient freedom (as to when he bathes, sleeps, goes on trips, watches TV, etc.)

____ Craft manufacturing program with meaningful goals.

____ Allow patient to care for himself and surroundings, ex. make own bed.

____ Group work or programming with the disoriented and confused.

____ Patient governing board.

____ Patient motivation techniques (ex. provide meaningful tasks)

____ Staff taking on teaching role with patients.

____ Out of hospital or nursing home follow-up.

____ Men and women living in the same area.

____ Staff use of street clothes instead of uniforms.

____ Job breakdown in work (provide tasks that are appropriate for resident's ability)

APPENDIX F

FOLLOW-UP COMMUNICATION QUESTIONNAIRE

Name_____

Name of Facility_____

Follow-up Communication Questionnaire

1. To what extent have you discussed the milieu therapy program with your staff? (check one)

____a. a great extent
____b. quite a bit
____c. some
____d. little
____e. nothing

2. What means did you use to share the information among your staff members? (check all appropriate categories)

____a. passed out written literature
____b. called meeting with the staff for presentati
____c. showed films or filmstrips
____d. passed on information in conversation
____e. other (Please describe)_____
_____

3. How many staff members have received the information about the milieu therapy program? (check one)

____a. 0-5
____b. 6-10
____c. 11-15
____d. 16-20
____e. over 21

4. How did your staff react to the following categories of information from the 5 day workshop?

1. changing the physical environment (check one)
____a. strongly agree
____b. agree
____c. neither agree nor disagree
____d. disagree
____e. strongly disagree

2. new staff roles (check one)
____a. strongly agree
____b. agree
____c. neither agree nor disagree
____d. disagree
____e. strongly disagree

3. programs (special projects, planning groups, work therapy, music therapy, social therapy, community living) (check one)
____a. strongly agree
____b. agree
____c. neither agree nor disagree
____d. disagree
____e. strongly disagree

5. Did you find it difficult to present any particular aspect of the milieu therapy program? ____yes ____no

   Please comment.

6. Is there a group of staff members to try out some of the ideas from the milieu therapy program? ____yes ____no

&. Which member of the group is assuming leadershop in trying out the ideas of milieu therapy? (Name positions: nurse, doctor, etc)

   _____ _____

8. How many are involved in the planning group? _____

9. List the positions of the people involved in the planning group.

   _____ _____

   _____ _____

   _____ _____

10. How often do you meet? (check one)

    ____a. twice a week
    ____b. once a week
    ____c. once every two weeks
    ____d. once a month
    ____e. other (please explain)_____

11. How long are your meetings? _____

12. Do all your planning group members work in the same ward or area?
    ____yes ____no

    If no, what relationship do they have with each other?

13. How good is the attendance of the members in the planning group meetings? (check one)

    ____a. most attend
    ____b. quite a few attend
    ____c. some attend
    ____d. few attend
    ____e. none attend

14. How much turnover of membership do you have in the planning group? (check one)
____a. a great deal
____b. quite a few
____c. some
____d. little
____e. none

15. How many people determine the decisions in the group discussing milieu therapy? (check one)
____a. everyone
____b. few people
____c. a couple of people
____d. one person

16. Has the group met informally such as at lunch or coffee break? ___yes ___no

For questions 17a, 18a, and 19a, please write none if you have not attempted to make any changes in that area.

17a. List and explain the attempts you have made in bringing about changes in the physical environment.

17b. To what extent did the following conditions prevent you from successfully making any changes you mentioned in 17a.

	A Great Extent	Quite a Bit	Some	Little	None
a. lack of funds (check one)					
b. lack of trained staff (check one)					
c. lack of communication between staff (check one)					
d. staff disagreement with the milieu therapy information (check one)					
e. state regulation (check one)					
f. other (describe)_____					

18a. List and explain the attempts you have made in establishing milieu programs.

18b. To what extent did the following conditions prevent you from successfully making any changes you mentioned in 18a.

	A Great Extent	Quite a Bit	Some	Little	None
a. lack of funds (check one)					
b. lack of trained staff (check one)					
c. lack of communication between staff (check one)					
d. staff disagreement with the milieu therapy information (check one)					
e. state regulation (check one)					
f. other (describe)_____ _____ _____					

19a. List and explain the attempts you have made to bring about changes in staff behavior.

19b. To what extent did the following conditions prevent you from successfully making any changes you mentioned in 19a.

	A Great Extent	Quite a Bit	Some	Little	None
a. lack of funds (check one)					
b. lack of trained staff (check one)					
c. lack of communication between staff (check one)					
d. staff disagreement with the milieu therapy information					
e. state regulation (check one)					
f. other (describe)_____ _____ _____					

20. Have you ordered milieu therapy films from the Institute of Gerontology?
____yes ____no

21. Have you ordered the training sereis from the Institute of Gerontology?
____yes ____no

APPENDIX G

TELEPHONIC CONSULTATION

Telephonic Consultation

Was the telephonic consultation helpful?

_____ yes _____ no

Please explain.

Also if yes, order the following categories by assigning 1 to the category in which you received most help, 2 for the category in which you received some help, and 3 for the category in which you received least help.

_____ providing information on resources

_____ providing information on how to initiate change

_____ providing emotional support

Example: Order the following colors by assigning 1 to the color you like best, 2 to the color you somewhat like and 3 to the color you least like.

1 red
3 yellow
2 blue

APPENDIX H

SCORING SOCIAL STATUS OF STAFF

Appendix H

Scoring Social Status of Staff

The following scores were assigned for questions involving staff positions:

1 = doctor

2 = supervisor

3 = nurse

4 = social worker

5 = occupational, physical and musical therapists

6 = attendent or aides

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