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The Impact of an Employee Involvement Program on Service Quality in a Nursing Home Organization

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The Impact of an Employee Involvement Program

On Service Quality in a Nursing Home Organization

by

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ABSTRACT

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The purpose of this research was to investigate the effects of an intervention involving employee participation in decision making and behavior modeling training on quality of service. Subjects were nursing aides in two similar nursing home facilities operated by a medium-sized long-term care organization. Participation in decision making involved weekly meetings using a quality-circle-type problem-solving process to develop suggestions for improving quality of service to residents and their families. Behavior modeling training was used to teach interpersonal skills necessary for handling a customer complaint. Service quality was assessed through family, resident, and supervisor ratings of nursing aide service behaviors. The impact of the intervention was assessed with nursing aide quality of worklife indicators of perceived influence in decision making, satisfaction with decision making influence, organizational commitment, turnover intention, role conflict, role ambiguity, higher-order need satisfaction, satisfaction with service role, and satisfaction with organizational policies. The results for service quality revealed that the intervention did not improve customer ratings of service quality performance. The results for aide quality of worklife indicators showed a significant intervention effect on perceived influence and turnover intention. Analysis of reasons for this limited effect and suggestions for future research are discussed.

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I would like to express love and gratitude to my family for the support they have given me in this endeavor. With a supportive family, dreams can become reality.

At my father's knee I developed an interest in the "mysterious" world of work. I also learned about achievement, ethics, and self-efficacy. From my mother I learned to care about other people and their concerns. She taught me that intuition and feelings were also important in understanding myself and others. Grandpa Catanzaro taught me the importance of paving the way for the next generation so that they will have a better opportunity to achieve their goals. He inspired me daily at every stage of this research project, and continues to inspire me now that it is done.

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Introduction

The theoretical foundations of industrial-organizational (I/O) psychology are based on models largely derived through research and practice in manufacturing organizations (Schneider, 1980). Basic differences between manufacturing and service organizations necessitate a reconceptualization of how managerial and human resource practices impact organizational effectiveness relative to the goals, technology, and practices of the service firm. In the second quarter of 1991, services accounted for 48.6% of the United States' Gross National Product (U.S. Department of Commerce, 1991). With the growth of the service sector in U. S. industry, there is a need for I/O research tailored to the needs of service organizations.

This study tested an organizational intervention based on participative decision making and behavior modeling. A literature review examines research and theory related to service organizations, service quality, service climate, quality of worklife, participative decision making, and behavior modeling. Because the intervention was tested in a nursing home, relevant literature from the field of long-term care is also discussed.

Service Organization Characteristics

Characteristics of service organizations have been discussed by Shostack (1977a), Gronroos (1978), Mills & Moberg (1982), Snyder, Cox & Jesse (1982), and Bowen & Schneider (1988). Although Snyder et al. (1982) state that the definition of "service organization" is ambiguous

and that organizations can be classified along several
continua of service components, the characteristics most
frequently cited in the above sources as distinguishing
service organizations from manufacturing organizations are
listed below.

1. The output of the service organization is relatively
    intangible and difficult to measure -- the service is
    an operation or transformation performed on the
    customer or customer's possessions. In contrast, the
    output of the manufacturing organization is a
    tangible product.

2. The consumer is physically present during both the
    production and consumption of services. The consumer
    is not present during production of manufactured
    goods.

3. Production and consumption of services occur
    simultaneously. Services cannot be stored or
    inventoried. In contrast, production and consumption
    of manufactured goods occur separately and products
    can be stored for later purchase or consumption.

In the manufacturing organization, the primary work
processes involve employee interaction with tools, equipment,
or technology to transform raw materials into output. The
output of the work process is generally purchased and
consumed off-site. In the service organization, the primary
work processes generally occur during an interpersonal
transaction between an employee and customer (Czepiel, 1980).
This interaction is termed a "service encounter" (Czepiel,
Solomon, Surprenant & Gutman, 1985). Because the service
organization's primary work processes occur during the
service encounter, the skills, behaviors, and attitudes
required of the service employee differ from those required

of the manufacturing employee who typically does not directly interact with customers.

Gronroos (1983) proposed that functional aspects of service quality coexist with technical quality. While technical quality involves content-related specifications of the service, functional quality involves the manner in which the service is delivered (Gronroos, 1983). Both technical and functional quality are important in consumer judgments when the consumer is capable of evaluating technical quality. Because services are relatively intangible, functional quality is often more obvious to the customer than technical quality. Therefore, the service encounter interaction between employee and customer has a major influence on customer satisfaction with service quality (Czepiel, Solomon, Surprenant & Gutman, 1985; Day, 1977; Lovelock, 1981; Mills & Moberg, 1982; and Shostack, 1977b).

Management and human resource techniques have frequently not been adapted to fit the needs of the service organization. Bowen (1986) notes that in service settings where customers are present, human resource management practices affect both employee and customer satisfaction. Researchers in I/O psychology have largely ignored functional service quality outcomes in evaluating management and human resource practices, interventions, and training. While these outcomes may not be relevant to the manufacturing organization, service organizations need to evaluate the impact of organizational practices on functional service quality.

Service employees in many organizations are at the bottom of the wage scale (Hollander, 1985) and have limited opportunity for advancement. Thus, they may feel less commitment to organizational goals than do management and professional employees. Yet, the service employee performs the crucial boundary-spanning role in representing the organization to customers (Bowen & Schneider, 1985). Service employees are required to behave in a manner which reflects both organizational goals and customer desires, which may conflict (Czepiel, Solomon, Surprenant & Gutman, 1985). The service role can be highly stressful as the employee attempts to balance organizational, customer, and personal needs (Nyquist, Bitner & Booms, 1985; Parkington and Schneider, 1979).

In the long-term care setting, service encounter dynamics are a major determinant of resident evaluations of service quality (Institute of Medicine, 1986). The issue of service encounter quality is highly salient in the long-term care environment. The salience of service quality is high because service recipients are full-time residents whose quality of life depends upon the nature of interactions with service employee personnel, especially nursing aides (Institute of Medicine, 1986; p. 52). Nursing aides must balance demands from residents, resident families, and organizational requirements, which frequently conflict.

The strategies for improving service outcomes such as functional service quality and employee quality of worklife

proposed in this paper were tested in a multi-facility, proprietary nursing home organization in the state of Virginia. Therefore, the literature review includes a focus on research conducted in long-term care and health care settings.

Service Quality Theory and Research

Product-Attribute Approach

Shostack (1977a) and Klaus (1985) report that the service management and marketing literatures have traditionally approached service quality through a product-attribute approach. Customer satisfaction is a common criterion for evaluating product quality. Quality is measured as conformity to standardized requirements (Crosby, 1979; Hostage, 1975). The quality of a product is viewed as the sum of its physical and technological attributes, and the service product is often viewed through this same lens. The service needs to be rendered in compliance with standards and at minimal cost.

A weakness of the product-attribute model is that strong relationships between objectively measured product attributes and consumer perceptions of product quality have not been found (Hunt, 1977). Applying this manufacturing-based model to service attributes, which are less tangible than product attributes, is inappropriate. Klaus (1985) notes that the product-attribute perspective defines quality as a physical attribute of a product that is observable and measurable. In contrast, functional service quality is a subjective

experience and not readily observable and measurable without customer input (Solomon, Surprenant, Czepiel & Gutman, 1985).

In long-term care, quality of service is typically evaluated in terms of compliance with structural requirements mandated by federal and state regulatory agencies. Structural, process, and outcome criteria of health care quality described by Donabedian (1969) have been incorporated into standards and conditions required of nursing homes which receive government reimbursement (Institute of Medicine, 1986; p. 53). Examples of structural requirements to which long-term care facilities must adhere include specific medical assessment and documentation procedures, housekeeping standards, staff qualifications and environmental design. "Quality" is defined as compliance with technical standards of care. However, regulations cannot ensure that nursing aides are pleasant and kind to residents.

Customer perceptions are influenced by the technical quality of the service provided, but are additionally influenced by customer knowledge and expectation levels, service provider attitudes and skills, and organizational policies, practices, and procedures regarding service delivery. Service quality cannot be completely controlled through management directives (Andreason, 1977; Day, 1977; McCallum & Harrison, 1985; Schlissel, 1985). Technically competent medical care and a safe, sanitary environment are necessary but not sufficient to provide quality care.

The product-attribute model is an inadequate representation of the complex influences on perceived service

quality because it omits consideration of the service encounter and functional service quality. The interaction framework model described below better illustrates the processes which interact in determining service quality.

Interaction Framework of Service Quality

Klaus (1985) presents a model of the multiple influences which interact in the production of a service encounter. This model is an improvement over the product-attribute approach because it describes the dynamic influences that affect service quality judgments. The basic elements of Klaus' framework are described below and depicted in Figure 1.

The environment (1). This includes numerous economic, regulatory, social, and cultural forces which influence characteristics and behavior of service employees (3), customers (4), and internal organizational subsystems (2) (Katz & Kahn, 1978; Klaus, 1985). A lengthy discussion of these environmental influences and impact on each component of the model is beyond the scope of this paper, but key environmental influences are addressed below in the description of each component of the model.

Nursing homes operate in an industry environment highly regulated by federal and state government. Policies and procedures are designed to meet regulatory standards, increase return on investment, and prevent residents from physical injury. Resources and staffing levels are often inadequate due to pressures for cost containment.

1. EXTERNAL ENVIRONMENT

2. ORGANIZATIONAL SUBSYSTEM
PRACTICES
POLICIES
PROCEDURES
NORMS

3. SERVICE EMPLOYEE CHARACTERISTICS

5. SERVICE ENCOUNTER

SITUATIONAL CONTEXT

4. CUSTOMER CHARACTERISTICS

<u>Figure</u> <u>1</u>. Model of Influences on Service Encounter

<u>Organizational</u> <u>subsystems</u> (2). The organizational policies, practices, constraints, norms, goals, resources and rewards which impact on the service delivery system and employee quality of worklife influence the service encounter (Schneider, 1980). Katz and Kahn's (1978) model of organizational subsystems depicts processes within the organization. Subsystem operations may affect service employee (3) and customer (4) perceptions and behavior. Research by Schneider (1973; 1980; Schneider & Bowen, 1985), Tornow and Wiley (1991), and Wiley (1991) demonstrates that employee perceptions of the internal work environment created by management's policies, practices, and human resource orientation consistently correlate with both employee and customer perceptions of service quality.

Lovelock (1985) notes that the design of the service organization has traditionally been operations driven. The goals of administrative efficiency, return on investment and convenience rather than functional service quality and customer satisfaction have guided development of organizational policies, practices, and procedures.

In long term care facilities rules and policies are designed to prevent resident injury, reduce costs, and facilitate efficient management for staff. These policies, while sometimes necessary, restrict resident freedom and choice. Nursing aides and the charge nurses who supervise them are responsible for implementation of policies and practices that restrict resident choice. This has a negative effect on customer perceptions of service quality (4).

Service employee characteristics (3). The employee's behavioral predispositions, attitudes, (Hogan, Hogan, and Busch, 1984), interpersonal, communication, and technical skills, and demographic characteristics (Czepiel et al., 1985) interact with organizational subsystem policies and practices and customer characteristics. Nursing home residents report that the interpersonal interaction with nursing aides is the single biggest influence on their quality of life (Institute of Medicine, 1986).

Nursing aides may have different socioeconomic, cultural, and ethnic backgrounds from many of the residents they serve. Stereotyping, incongruent role expectations, and different communication styles related to social and cultural differences can affect the dynamics of the service encounter (Solomon, Surprenant, Czepiel & Gutman, 1985).

Nursing aides' salaries are generally close to the minimum wage (Newell, 1988). Educational level is typically a high school degree or less (Holz, 1982; Reagan, 1986). Turnover rates are quite high; most estimates range from seventy to one-hundred percent annually (Institute of Medicine, 1986; Waxman, Carner & Berkenstock, 1984). Although nursing aides deliver eighty percent to ninety percent of care to residents (Institute of Medicine, 1986), these employees typically have little experience in working with the elderly and receive limited training (Reagan, 1986). Few resources are directed toward nursing aide training, and training that does exist is primarily directed toward

physical care of residents rather than the interpersonal dynamics of care (Gaspar & Heide, 1988; National Citizens' Coalition for Nursing Home Reform, 1978).

Schneider (1980) states that people who choose service jobs often have a strong desire to work with people and give good service. Because the nursing aide who possesses limited skills and education could make the same amount of money at a less demanding job (fast food clerk, cleaning services), nursing aides probably do enter the field with some interest in providing good care to residents. Holz (1982) provides evidence from a survey of nursing aides that supports this contention.

Customer characteristics (4). Customer characteristics such as expectations, behavioral predispositions, attitudes, perceived risk, interpersonal, communication, and role-related skills, and demographic characteristics influence the service encounter (Lovelock & Young, 1979; George, Weinberger and Kelly, 1985). These characteristics influence customer expectations and satisfaction (Czepiel, Solomon, Surprenant and Gutman, 1985).

Vogel (1985) summarizes demographic characteristics of nursing home residents. Their median age is 81; thirty-two percent are diagnosed as senile; the average resident has four chronic diseases or crippling disabilities. National Center for Health Statistics data indicate that impairments in activities of daily living are common: only thirty-four percent of residents can walk unassisted; eighty-six percent require assistance in bathing; seventy percent need help in

dressing; thirty-three percent need assistance in eating; forty-five percent are incontinent. The median stay in a nursing home is two years (Vogel, 1985). Resident reactions to institutionalization vary, depending upon physical and mental condition, family and social supports, and the type of care provided. Residents may feel anger over perceived family abandonment; powerlessness due to infirmity, dependence, and restrictions on freedoms; boredom due to the monotonous daily routine and the lack of cognitive and social stimulation. Residents may be depressed, although Zemore and Eames (1979) found that institutionalized and non-institutionalized elderly had the same rates of depression.

The resident's family members participate in the nursing home placement decision and are also customers of the nursing home. In fact, nursing home administrators may consider the family to be the primary customer (F. Sachs, personal communication, January 19, 1989). Family members may feel guilt because they are unable to care for the elderly parent or relative at home; they may experience anxiety due to the physical or mental condition of the elderly relative and the possibility of their death. Their feelings may also include anger, fear, resentment, denial, and withdrawal (Wentzel, 1978). Family members' anger may be displaced onto the nursing home staff (Tobin, 1987).

Family members and residents may have expectations for a level of care and attention difficult or impossible to achieve in an institutional setting. In addition, there may

be customer expectations about the role of service providers that are not congruent with organizational realities. Initially, customers may expect care to be provided by physicians and registered nurses. After entering the nursing home, residents and visitors quickly learn that almost all care is provided by nursing aides and LPNs.

Service encounter context (5). A specific context sets conditions and limitations on the encounter. The situational context is related to the goals and characteristics of a particular service encounter. For example, a service encounter between a nursing aide and a family member might have goals of information exchange or complaint. Situational characteristics may be influenced by how busy the nursing aide is and the condition of the resident that day.

The interaction framework model described above depicts the multiple factors which contribute to the service encounter. The interaction of employee and customer during the service encounter is not simply a function of employee behavior; it is strongly influenced by the policies, procedures, and practices of the organization. When the organization's policies, procedures, and practices are objectionable to customers, the service employee cannot simultaneously satisfy customers and organizational requirements. The boundary-spanning service employee must attempt to balance conflicting demands from customers and the organization. This "service dilemma" may lead to feelings of role conflict when customer and organizational demands are incompatible (Parkington & Schneider, 1979). If employees

do not have organizational training and support regarding how to balance these demands, they may experience feelings of role conflict and role ambiguity. These reactions are described below.

Service Role Conflict and Role Ambiguity

The employee may experience role conflict due to incompatible requests, policies, or standards of evaluation; conflict between time, resources, or capabilities and defined role behavior; or conflict between internal standards or values and defined role behavior (Solomon, Surprenant, Czepiel & Gutman, 1985; Rizzo, House & Lirtzman, 1970). Role ambiguity occurs when the employee experiences a lack of certainty with respect to duties, authority, or relationships with others, a lack of clarity in terms of guidelines and policies, and a lack of predictability in terms of which behaviors are acceptable and not acceptable to the organization (Rizzo et al., 1970). If employees have few guidelines for how to resolve the service dilemma effectively, they may experience role conflict and role ambiguity.

The boundary-spanning role of service employees places them in a position where role conflict and ambiguity are likely consequences of incompatible customer expectations and organizational policies. Fisher & Gitelson (1983) report that role conflict is associated with boundary-spanning activities. It may be impossible to simultaneously satisfy the customer and enact certain organizational

policies, procedures and practices to which the customer objects. In the nursing home, residents and their families dislike many of the policies, procedures and practices which management considers necessary to safe and efficient operation of the facility.

Employee perceptions that management is more interested in enforcement of policies, procedures, and practices than in providing flexible, caring service is correlated with low overall satisfaction with work experiences, frustration, turnover intentions, and poorer employee ratings of service quality (Parkington & Schneider, 1979).

Parkington & Schneider (1979) suggest that a discrepancy between employee and management service orientation may predict employee frustration in service role and turnover intentions. If service employees have a strong desire to provide good service and please customers, but perceive that management is primarily concerned with enforcement of policies, rules, and procedures that limit service quality or reduce customer satisfaction, the employee experiences role conflict (Parkington & Schneider, 1979).

Employee role conflict and role ambiguity combine to produce role stress (Rizzo et al., 1970). Role stress is negatively correlated with employee satisfaction, organizational commitment, and participation in decision making (Fisher & Gitelson, 1983; Schuler, 1977). Brief and Aldag (1976) found that job characteristics predicted role conflict and role ambiguity in a sample of nursing aides, and that this relationship was not influenced by

higher-order need strength. Service employees often face conflicts between customer needs and organizational requirements. One approach to creating a more service-oriented environment is to identify where these conflicts exist and to eliminate the conflict where possible (Parkington and Schneider, 1979). Policies, procedures and practices which can be altered to reduce service dilemmas should be revised. In certain areas these conflicts cannot be completely eliminated; an unpopular policy may be necessary to insure the safe operation of the business, may be mandated by government, or may be the result of economic constraints. In these instances, service employees need recognition, training, and support from management to clarify role expectations and to help resolve conflicts with customers skillfully. The service employee's role should also allow latitude for employee judgment and flexibility in resolving service problems.

Climate For Service Model

The service dimension of climate proposed by Schneider is derived from the work of Litwin & Stringer (1968), Payne & Pugh (1976), Joyce & Slocum (1979), and Schneider (1975). The service climate approach to understanding service dynamics examines the influence of the organizational environment (#2 in the Klaus framework) on employee and customer attitudes and behavior (#3 and #4 in the Klaus framework).

Schneider (1973) proposed that organizational, managerial, and human resource practices in direct service organizations affect both employee and customer perceptions of service-related processes and outcomes. Schneider (1973) defines "climate for service" as summary perceptions customers have of service-related practices of the organization. According to Schneider (1980), the work environment which management creates for employees "shows" to customers during service transactions. Schneider, Parkington & Buxton (1980) present evidence which demonstrates that employees are sensitive to service climate and that employee reports of managerial practices and service orientation, personnel support, organizational concern for customer retention, and organizational satisfaction positively correlate with customers' evaluation of service climate and service quality. Research by Wiley (1991) provides additional support for this finding.

Schneider & Bowen (1985) found that employee perceptions of human resource practices, including work facilitation and supervisory feedback, reward, and communication, were consistently correlated with customers' perceptions of service climate. Schneider & Bowen (1985) suggest that when employees feel positive about the organization's human resource practices they will feel free to devote their energies and resources toward serving customers. They conclude that organizational human resources and service-

related practices are sources of cues which customers use to evaluate service quality (Schneider & Bowen, 1985).

Thus, variables that are considered indicative of quality of worklife, including job satisfaction, organizational commitment, turnover intentions, and role stress are potentially important influences on employee service behavior. Broadly stated, the quality of worklife perceived by employees may influence quality of service provided by employees.

One way that managerial and other organizational practices adversely influence employee ability to give good service is by emphasis on goals, policies, and practices (#2 in the Klaus model) that are unrelated to, or conflict with, customer service as a priority. Schneider et al. (1980) theorize that employees who are high in service orientation feel role stress when management emphasizes a bureaucratic orientation toward service which stresses rules, policies, and system maintenance. Employees who have a genuine desire to give good service to customers may feel that they are prevented from doing so by organizational policies and practices.

The research conducted by Schneider and his colleagues has strong implications for the quality of service provided by nursing homes. Although regulations and documentation of care are crucial in maintaining the technical quality of nursing home care, these requirements may detract from functional aspects of resident care (Institute of Medicine, 1986). Documentation, cost-containment, and efficiency are

important priorities for nursing home administrators. However, these priorities take time, attention, and resources away from prioritization of functional service quality.

Nursing aides must implement policies, procedures and practices to which residents or their families object. Examples of such policies, procedures, and practices are those regarding use of physical restraints, bathing, getting out of bed, and dietary restrictions. Other unpopular practices are related to keeping labor costs low. Shifts are often understaffed.

A research question derived from the correlational studies conducted by Schneider and his colleagues is whether an intervention in human resources-oriented organizational and management practices can improve service quality. Do attempts to increase employee participation in decision making and skills in managing service dilemmas have an effect on employee role conflict, role ambiguity, and customer perceptions of service quality? The present study proposes to answer these questions.

Quality of Worklife

The research by Schneider and his colleagues indicates that employee attitudes toward various organizational and managerial practices are related to customer perceptions of service quality. Employee attitudes toward variables that indicate quality of worklife may be better predictors of service quality than they are of productivity criteria. Organizational commitment and satisfaction with higher-order

need gratification are quality of worklife perceptions that may influence the quality of services rendered.

Organizational commitment. Because the product of the service employee's work is relatively intangible and often cannot be directly observed by management, functional service quality depends largely on the commitment of the individual service employee. Organizational commitment represents support for an organization's goals and values, willingness to exert considerable effort on behalf of the organization, and a desire to maintain organizational membership (Mowday, Steers & Porter, 1979). Commitment has an attitudinal component and a behavioral component characterized by turnover or turnover intention (Mowday, et al., 1979). Commitment is related to, but distinct from, job satisfaction (Mowday et al., 1979; Porter, Steers, Mowday & Boulian, 1974) and can be considered an indicator of quality of worklife. Service employees' perceptions that organizational values and goals are congruent with their own should be related to the quality of service they give customers. If management emphasizes what Schneider (1980) calls an enthusiastic service orientation, characterized by concern for customer satisfaction, the service-oriented employee is more likely to accept and share these organizational goals.

Satisfaction of higher-order needs. The employee's satisfaction with opportunity for attaining gratification of higher-order needs is a dimension of job satisfaction that

can be influenced by participation in job-related decisions, and may affect the quality of service the employee is willing to provide. Human relations theorists (Blake & Mouton, 1964; Likert 1967; Porter & Lawler, 1968) state that participation is related to satisfaction of higher-order needs for independence, accomplishment, and self actualization, and that opportunity to gratify these needs can motivate performance (Miller & Monge, 1986). Spector's (1986) meta-analysis of research on perceived control found participation and autonomy predicted employee role stress, commitment, satisfaction with the work itself, and performance.

Research and theory on climate for service, role conflict and role ambiguity, and higher-order need satisfaction provide insight into many of the service encounter dynamics represented in Klaus' interaction framework model. Additional research on the service encounter will be discussed in the next section.

Research On Functional Service Quality In Health Care and Long-Term Care

Research examining the service encounter in health care and long-term care settings has been primarily descriptive and correlational, measuring variables thought to be related to service quality perceptions and correlating these perceptions with service provider, patient, or contextual characteristics. Numerous studies have found a relationship between health care service employees' or service providers' interpersonal behavior (#3 in Klaus' [1985] interaction framework model) and patient satisfaction with service

quality. Examples of research in this area are studies by Ben-Sira (1976), Lebow (1974), Spiegel & Backhaut (1980), Stiles (1985), Ware & Snyder (1975), and Wheeler & Gardner, (1987).

Weinberger, Greene and Mamlin (1981) review several studies that found consistent correlations between physician interpersonal behavior and patient satisfaction. Patient ratings of health care service quality are consistently and positively related to the interpersonal behavior of care providers during service encounters. These studies measure service provider interpersonal behavior in different ways, including direct observation and coding of verbal and nonverbal communication behaviors such as encouraging interaction, feedback regarding medical condition, social conversation, humor, touch, and gestures (Weinberger, et. al, 1981), through patient reports of satisfaction with communication behaviors (Ben-Sira, 1976), or critical incidents (Wheeler & Gardner, 1976).

Because patients are generally unable to judge the technical quality of medical care, judgments of quality are greatly influenced by the functional quality of the health care service encounter. Spiegel & Backhaut (1980) note that the "art of cure" is a vital influence on patient cooperation, recovery, and satisfaction.

The long-term care service encounter has not been the subject of similar research. The service encounter between nursing aides and nursing home residents involves personal

care instead of medical care, but the caregiver's service role is similar.

Interviews conducted by the National Citizens' Coalition for Nursing Home Reform (1978) asked 450 nursing home residents in 15 cities to respond to the question "what makes a nursing home a good place to live?" The most frequently mentioned theme involved staff with good attitudes (Spalding & Frank, 1985). Residents state that warmth, compassion, concern for comfort, and listening skills are vital components of care (U. S. Senate Select Committee, April 28, 1986). The Institute of Medicine (1986) similarly concludes that resident quality of life is strongly influenced by staff attitudes toward caring for residents.

A review of the long-term care literature found no quasi-experimental or experimental research studies using measures of functional service quality based on resident, family, or staff perceptions. A review of the I/O Psychology literature found only a very few quasi-experimental studies designed to study the effectiveness of interventions intended to improve functional service quality in non-health care settings.

Research on Functional Service Quality in Non-Health-Care Settings

Komaki, Blood and Holder (1980), and Brown, Malott, Dillon and Keeps (1980) report organizational behavior management (OBM) interventions designed to foster functional service quality. The study by Komaki et. al (1980) used a pretest-posttest design to measure the effectiveness of an

intervention in increasing service employee frequency of smiling and talking with customers. The intervention involved training eleven fast food restaurant employees to perform these key behaviors and reinforcing performance of the behaviors with manager praise. The study met with limited success because of the difficulty involved in getting the restaurant manager to regularly observe and reinforce fleeting employee-customer interactions. The study measured frequency of the key behaviors but did not measure customer reactions to the new behaviors.

The study by Brown et al. (1980) used training and feedback to increase target behaviors in three department store salespersons. The target behaviors were approaching customers, greeting customers, being courteous, and closing the sale. The dependent variable was the frequency of the target behaviors. Target behaviors did not increase as a result of training alone, but did increase when training and feedback were combined. In addition, customer opinions of service quality were measured, and did correlate with incidence of target behaviors.

A correlational study by Rafaeli (1989) assessed the influence of sales clerk gender, uniform, and presence of other customers on the display of positive emotions toward male and female customers. She found that female clerks were more likely to display positive emotions toward customers, and that both male and female clerks were more likely to display positive emotions toward male customers. The

presence of other customers and clerk uniform were associated with increased display of positive emotions. This study measured employee service encounter behaviors as the dependent variable, but did not assess customer responses.

Cooper & Oddie (1972) used a quasi-experimental design to evaluate a training intervention. Their study is notable for using customer perceptions as a dependent variable in a behavioral science-based service quality intervention. Cooper and Oddie (1972) implemented a social skills training program for fast food restaurant employees in the United Kingdom, and evaluated the impact on customer service quality ratings. Unfortunately, the study is plagued by methodological problems, so no firm conclusions about the intervention's effectiveness can be made.

Qualitative research by Parasuraman, Zeithaml, and Berry (1985) demonstrates that the gap between customer expectations and the actual level of performance the service delivery system provides is a potent source of customer dissatisfaction. Organizational policies, practices, and procedures are often not designed to provide the level of service expected by customers, leading to customer dissatisfaction (Parasuraman, Zeithaml, and Berry, 1985).

Current customer service training aimed at improving the service encounter is not based on empirical evidence that such training is effective. There is a need for experimentally validated strategies for improving functional service quality. These strategies need to be based on theory and research on service quality.

Service Quality Intervention

A review of the interaction framework model (adapted from Klaus, 1985) and Schneider's research (Bowen & Schneider, 1985, 1988; Schneider, 1973; Schneider & Bowen, 1983; and Schneider, Parkington & Buxton, 1980) suggests that interventions in functional service quality need to influence (1) organizational policies, practices and procedures; (2) service employee skills and attitudes; and (3) the congruence between these factors and customer needs. Diagnosing organizational practices which influence service quality perceived by customers and service dilemmas perceived by employees is an initial step toward improving quality of services. Based on this information, key policies, practices, and procedures which detract from perceived quality and create service dilemmas should be modifed where possible. Service employee participation in service quality diagnosis and problem-solving is a recommended strategy in fostering improved service and reducing service dilemmas (Bowen & Schneider, 1988).

In addition, employees need skills to handle service dilemmas and customer complaints effectively when they do occur. Behavior modeling training (Decker & Nathan, 1985) is the most appropriate method for training customer service skills.

Participative Decision Making

Participative decision making (PDM) is defined as "joint decision making" (Locke & Schweiger, 1979); it is a sharing of decision making power between supervisor and subordinate.

PDM can increase the amount of employee input into decisions that concern some aspect of their jobs. PDM interventions vary along a number of dimensions, including length of intervention, formal vs. informal participation, amount of decision making power given to employees, manager training, and so on (Cotton, Vollrath, Froggatt, Lengnick-Hall & Jennings, 1986). Because no two PDM interventions are exactly the same, and may differ greatly, the mixed effects reported for PDM are not surprising.

Employee participation is particularly appropriate when employees possess information that may not be readily available to management (Vroom & Yetton, 1973). Boundary-spanning service employees are the closest contact between organization and customer and are likely to possess information not readily available to management (Bowen & Schneider, 1988). Employee participation is also particularly appropriate when employee support for changes in work processes is critical to successful implementation (Vroom & Yetton, 1973). Because the service encounter depends upon employee attitudes and behavior, and is often not directly observable by management, employee support for changes in policies, practices, or procedures regarding service delivery is crucial. Employee participation in developing solutions to service quality problems is the most appropriate process for tapping employee knowledge and motivation to improve service quality.

Locke and Schweiger's (1979) review of PDM research concluded that involving employees in decisions regarding workplace changes that affect them can increase satisfaction and improve attitudes. In sixty percent of all studies (N=43) comparing participative decision making with directive or non-participative decision making, higher satisfaction was found for the participative condition. No difference was found in thirty percent of the studies, and lower satisfaction found in nine percent of the studies. Locke and Schweiger (1979) found generally poor results reported for the effect of PDM on productivity.

Davis, Catanzaro, and Greene (1984) found stronger support for the effects of PDM on productivity by reviewing only studies employing experimental and quasi-experimental research designs and including several articles not reported in Locke and Schweiger (1979). Davis et al. (1984) also found positive results for quality of worklife outcomes such as turnover and absenteeism.

A meta-analysis of PDM research conducted by Miller and Monge (1986) found that participation has an effect on both satisfaction and productivity, although the effect on satisfaction is stronger. Employee participation in decision making regarding changes in policies, practices and procedures is associated with reduced resistance to these changes (Coch & French, 1948; Jenkins & Lawler, 1981; Lawler & Hall, 1970; Lischeron and Wall, 1975; Nurick, 1982; Scheflen, Lawler & Hackman, 1971). Employee input into workplace changes utilizes employee knowledge to improve the

quality of information used in decision making. Employee input also increases employee ownership and acceptance of the planned changes. Spector's (1986) meta-analysis of research on perceived control by employees found perceived participation and autonomy predicted role ambiguity, role conflict, job satisfaction facets (general, supervision, and work itself), performance, commitment, intent to quit, turnover and motivation.

Only one study could be found that specifically examined participative decision making regarding service quality issues. Goldstein (1978) created participative employee committees to solicit employee suggestions regarding service quality-related problems and solutions in a hospital radiology department. The author reports that serious service quality problems were remedied, but no controls or statistical analysis are reported.

Quality circles are a type of employee participation program where employees and their supervisor meet voluntarily on a regular basis to diagnose, analyze, and propose solutions to work-related problems. Quality circle participants generally receive training in problem identification and problem solving techniques. The solutions generated are formally presented to management, who may accept or reject the proposed solutions (Barrick & Alexander, 1987; Marks, Hackett, Mirvis & Grady, 1986).

A review of thirty-three quality circle evaluations reported by Barrick and Alexander (1987) included attitude,

productivity, and quality outcomes. They report uniformly positive results in sixteen studies (forty-nine percent), mixed or nonsignificant results in nine studies (twenty-seven percent), and uniformly negative results in eight studies (twenty-four percent). Five of the eight studies with negative findings were conducted within the Department of Defense. It is possible that quality circles are incompatible with attributes of military organizations (Steel & Shane, 1986).

No reported research has used a randomized experimental or quasi-experimental design to determine the effect of PDM on functional service quality outcomes. Quality of worklife outcomes (including job satisfaction and absenteeism) and productivity are the standard criterion measures assessed in participative decision making research. Functional service quality outcomes have been largely overlooked, although these outcomes have been conceptually related to participative decision making (Bowen & Schneider, 1988). The present study will look at quality of worklife variables, but will also include assessment of functional service quality as perceived by customers.

Two components of the service model adapted from Klaus (1985) are addressed by the participative decision making intervention in this study. PDM will involve employee participation in diagnosing service quality weaknesses and in recommending changes in organizational policies, practices, and procedures that detract from functional service quality. The process of participative decision making also has the

potential to influence <u>employee</u> <u>attitudes</u> such as commitment and satisfaction of higher-order needs (Miller & Monge, 1986). PDM is expected to improve service quality because it can facilitate change in policies, practices and procedures and in attitudes which reflect quality of worklife dimensions.

Employee participation in decision making regarding service quality problems and solutions is expected to impact functional service quality through the following mechanisms. First, due to their boundary-spanning roles, employees possess valuable information about organizational practices which detract from functional service quality (Bowen & Schneider, 1985; Schneider, Parkington & Buxton, 1980). Employees can provide high-quality input to problem diagnosis.

PDM is expected to increase employee perceptions of influence on management decisions regarding service quality issues. Participation in decision making and the subsequent changes in policies, procedures and practices is expected to enhance higher-order need satisfaction (Miller & Monge, 1986) such as personal growth, self fulfillment and accomplishment. Opportunity to fulfill these needs can lead to increased organizational commitment and reduced turnover intentions. These changes are expected to have a positive impact on customer perceptions of service quality.

Solutions to work-related problems should reduce employee role conflict and ambiguity and strengthen

satisfaction with service role and organizational policies, leading to increased functional service quality.

The theoretical foundations of employee participation strongly suggest that PDM and QC-type interventions can be highly effective in service organizations (Bowen & Schneider, 1988). Participation has been theoretically and empirically related to changes in organizational policies, practices and procedures and employee attitudes; these factors play key roles in functional service quality.

Participation in decision making and changes in policies, practices, and procedures are important components of a service quality intervention. However, not all policies disliked by customers can be changed. Therefore, it is important that employees receive support and training in handling customer complaints and concerns effectively. Behavior modeling training is therefore an appropriate component of an intervention in functional service quality.

<u>Behavior Modeling Training</u>

Behavior modeling training is designed to improve manager skills in face-to-face communication with subordinates regarding job-related issues. Behavior modeling is based on social learning theory (Bandura, 1977), which asserts that observational learning plays a critical role in skill acquisition, particularly when the model is reinforced, high in competence or status, and can be identified with by the observer (Decker & Nathan, 1985).

Strong empirical evidence supports the effectiveness of behavior modeling training in changing supervisor performance

of interpersonal job tasks (Burke & Day, 1986; Burnaska, 1976; Latham & Saari, 1979; Moses & Ritchie, 1976). Although the primary application of behavioral modeling has been supervisory training, the same principles can be used to train service employees to deal with customers in an effective manner (Goldstein & Sorcher 1974).

Only one published study reports the effect of behavior modeling training on functional service quality. Smith (1976) trained IBM branch sales managers in skills to be used when interviewing a complaining customer. A positive correlation was found between post-training manager communication skills and customer satisfaction, and both modeling training and modeling plus team-building groups resulted in significantly improved communication skills in an open-ended, written test. However, this did not translate to improved customer satisfaction when measurements were taken four to ten months after training. This result could be due to the influence of factors other than manager communication skills on customer satisfaction with product service support, such as the communication skills of the actual repairperson; policies, procedures and practices of the organization; or product performance.

A meta-analysis of managerial training interventions by Burke and Day (1986) found behavior modeling had the largest true mean effect size on criteria such as changes in job behavior reported by trainees, peers, or supervisors. The

effectiveness of behavior modeling is well documented. True experimental designs have been employed and several studies report multiple, performance-related criteria. Behavior modeling has the strongest research support of any technique for training job communication skills.

In the current study, behavior modeling training was used to train service employees to interact more effectively with family and residents during service encounters.

Summary of Service Quality Theory and Research

Functional service quality is influenced by organizational policies, practices and procedures, employee skills displayed during service encounters, and employee attitudes toward the job and the organization. The service employee experiences role stress when organizational policies, practices and procedures result in negative customer reactions. Complementary approaches to improving functional service quality are (1) creating policies, practices, and procedures which increase customer satisfaction, or eliminating policies, practices and procedures which decrease customer satisfaction; and (2) training employees to skillfully handle service encounter interactions where they must perform a procedure or enforce a policy which customers dislike. The first approach focuses on preventing service dilemmas, and the second approach focuses on skills in handling service dilemmas which cannot be prevented.

Participative problem solving meetings will be used to obtain employee input into and ownership of changes in

policies, practices and procedures which result in service dilemmas. This process is expected to also improve attitudes toward quality of worklife variables such as perceived influence, satisfaction with influence, turnover intention, role conflict and ambiguity, satisfaction of higher-order needs and satisfaction with service role and organizational policies through increasing participation in decision making and eliminating sources of service dilemmas (see Figure 2). PDM has potential utility in influencing both changes in work processes and quality of worklife.

Behavior modeling will be used to train employees to skillfully handle difficult service encounters where policies, practices, or procedures which are unpopular with customers must be enacted. Behavior modeling is the most appropriate training technique for improving job-related interpersonal skills, based on fairly consistent results across several well-designed studies (Decker & Nathan, 1985).

Because the participative decision making and behavior modeling interventions will be used jointly, the contribution of each respective technique will not be assessed. The multiple influences on service quality necessitate an intervention that deals with employee skills, attitudes, and organizational policies, practices and procedures. A body of empirical evidence has demonstrated the potential effectiveness of PDM in generating employee input, commitment to change and in improving job-related attitudes. Similarly, research on behavior modeling has demonstrated this

Figure 2. Model of functional service quality intervention.

technique's effectiveness in improving job-related communciations skills. Therefore these two techniques will be used together to improve functional service quality in this study. As used in the rest of this paper, the term "intervention" will signify the combined participative decision making and behavior modeling interventions.

Hypotheses

Hypothesis 1.

The intervention will lead to changes in policies, practices, and procedures.

Hypothesis 2.

The intervention will increase employee perceived influence in decision making.

Hypothesis 3.

The intervention will increase employee satisfaction with decision making influence.

Hypothesis 4.

The intervention will decrease employee turnover intention.

Hypothesis 5.

The intervention will increase employee commitment to the organization.

Hypothesis 6.

The intervention will decrease employee perceptions of role conflict.

<u>Hypothesis 7</u>.

The intervention will decrease employee perceptions of role ambiguity.

<u>Hypothesis 8</u>.

The intervention will increase employee satisfaction with higher-order need gratification.

<u>Hypothesis 9</u>.

The intervention will increase employee satisfaction with service role.

<u>Hypothesis 10</u>.

The intervention will increase employee satisfaction with organizational policies and practices.

<u>Hypothesis 11</u>.

The intervention will increase functional service quality.

Methods

Research Design

The research study utilized a pretest-posttest quasi-experimental design with two posttests. The intervention began the week after all pretests were completed. The weekly problem solving meeting intervention continued for seven weeks. Suggestions were implemented and the behavior modeling training was completed thirty weeks after the intervention began. I administered all measures a second time beginning three weeks after the intervention was completed (thirty-four weeks after pretesting). Measures were administered a third time beginning fifty weeks after the pretest measurement and sixteen weeks after the posttest measurement period (see the Gantt chart in Appendix A).

Four units in two facilities of a for-profit nursing home provided the experimental and control settings. Experimental units were located approximately thirty miles away from control units. The facilities are operated by the same corporate management, have the same policies, resource availability, reward system, and are physically identical.

Participants

Nursing aides. Nursing aides provided the focus for the experimental intervention. All nursing aides on the two experimental facility units participated in the experimental treatment. All nursing aides on two similar units in control facility units participated in the study but received no treatment. Each facility has a total of four units, so about half of the aides in each facility participated in the study.

The two units in each facility selected to participate were ranked by their Directors of Nursing as having low levels of turnover in comparison with the rest of the facility, equivalent levels of care and workload, and they were considered average on service quality problems.

The research study began with forty-one aides in the experimental group and thirty-three aides in the control group. Due to employee turnover, only fifteen aides in the experimental condition and ten in the control condition remained in the study long enough to participate in all three data collections. Table 1 describes nursing aide attrition for each facility.

Family members. One family member for each resident, including cognitively impaired residents, was mailed a copy of the service quality questionnaire and a letter of introduction requesting participation in the research study (Appendix B). The cover letter described the purpose of the study, assured confidentiality to participants, and asked them to fill out the questionnaire. The family member was told that they would receive a telephone call during the next week and would be able to report their questionnaire responses over the telephone at that time.

The family member identified in patient records as the party responsible for the resident was selected to participate. Information was collected about the frequency

Table 1

Breakdown of Nursing Aide Attrition

	Cont*	Exp*	Total
Number of subjects - pretest	31	41	72
Number of subjects - posttest 1	14	15	29
Reason for attrition between pretest and posttest 1:			
Voluntary termination	14	22	36
Involuntary termination	1	1	2
Transfer to other unit	1	0	1
Transfer to other facility	0	1	1
Leave of absence	0	1	1
Aide attrition rate between pretest and posttest 1	55%	63%	57%
Number of subjects - posttest 2	10	15	25
Reason for attrition between posttest 1 and posttest 2:			
Voluntary termination	4	0	4
Aide attrition rate between pretest and posttest 2	68%	63%	65%

* Cont=Control, Exp=Experimental

of family member visits to the nursing home. Data were only used if the family member reported visiting the nursing home at least twice in the past month.

One hundred and forty-eight questionnaires were mailed during the pretest data collection. Thirty-three of these potential respondents were excluded from the sample, generally because the correct telephone number could not be found. Thirty refused to participate for various reasons. Pretest data were ultimately collected from seventy-nine subjects: thirty-seven family members from the experimental condition and forty-two family members from the control condition. The breakdown of the reasons for non-responses from all three data collections is described in Table 2.

Repeated measures data from all three data collections were obtained for thirty-nine subjects: nineteen family members from the experimental facility and twenty family members from the control facility. The family mortality rate was primarily due to the resident leaving the nursing home due to improvement in condition, changes in family situation, or death. Only one subject who participated in the pretest refused to respond on a subsequent data collection. There was no meaningful difference in the mortality rate for the two facilities (see Table 2).

Nursing supervisors. Supervisory charge nurses and house supervisors rated their expectations for nursing aide service behaviors, and the frequency of service behaviors observed for each nursing aide who participated in the study. The survey was given to each nursing supervisor individually

Table 2

Breakdown Of Family Response Rates and Attrition

_____

Pretest

	Cont*	Exp*	Total
Pretests mailed	71	77	148

Non-responses not included
  in response rate

	Cont*	Exp*	Total
Telephone number incorrect	11	11	22
Address incorrect	3	3	6
Could not be reached in 9 attempts	0	3	3
Resident passed away or left facility	1	3	4
Visits nursing home infrequently	2	2	4
Total non-responses	14	19	33
# respondents remaining	57	58	115

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Non-responses included
  in response rate

Refused

	Cont*	Exp*	Total
No reason given	2	6	8
Misplaced questionnaire twice	3	3	6
Personal illness	2	1	3
Resident very ill	2	2	4
Said all is fine	0	3	3
Prefer not to discuss on telephone	0	1	1
Difficulty understanding questions	1	0	1
Did not feel qualified to judge	1	0	1
Suspected personality disorder	1	2	3
Total refused to participate	12	18	30
# of respondents remaining	42	37	79
Pretest response rate**	73.6%	63.7%	68.7%

Table 2 (continued)

Breakdown Of Family Response Rates and Attrition

Posttest 1

	Cont*	Exp*	Total
# respondents from pretest	42	37	79

Non-responses not included
  in response rate

	Cont*	Exp*	Total
Resident left facility or passed away	16	11	27
Telephone disconnected	2	0	2
Moved to uninvolved unit in facility	0	1	1
Total	18	12	30
# of respondents remaining	24	25	49

Non-responses included
  in response rate

	Cont*	Exp*	Total
Refused	1	0	1
Respondent ill	0	1	1
Total	.1	1	2
# of respondents remaining	23	24	47
Posttest 1 response rate**	95.8%	96%	95.9%

Table 2 (continued)

Breakdown Of Family Response Rates and Attrition

Posttest 2

	Cont*	Exp*	Total
# respondents from posttest 1	23	24	47
Non-responses not included in response rate			
Resident left facility/passed away	2	1	3
Could not be reached in 9 attempts	0	1	1
Total	2	2	4
# respondents remaining	21	22	43
Non-responses included in response rate			
Repeatedly contacted - too busy	1	1	2
Erroneously omitted	0	1	1
Total	1	2	3
# respondents left	20	19	39
Posttest 2 response rate**	95.2%	86.3%	90.6%

* Cont=Control, Exp=Experimental
** response rate calculated as total sampled/refused

and privately in either the facility conference room or the supervisor's office. At each administration, the nursing supervisor first filled out the service quality expectations scale and then completed a service quality observation scale for each nursing aide supervised. Confidentiality was strongly emphasized. Supervisors were assured that the questionnaire results would only be used for research purposes, would not be available to nursing home administrators or other officials, and would not affect the nursing aides in any way.

Residents. Nursing home residents on experimental and control units, except those identified by the charge nurse as cognitively impaired, were asked to respond to the service quality questionnaire during an interview by the researcher. The researcher requested each resident to participate in the research study. Residents were told that the purpose of the study was to learn more about the opinions of nursing home residents and that all the results were confidential and would be used for research purposes only. It was emphasized that no nursing home employees would have access to the survey responses.

Due to the large proportion of nursing home residents who had cognitive impairments that prevented them from understanding the questionnaire items or responding meaningfully, pretest data could only be collected from twelve residents at the experimental facility and eleven residents at the control facility. Repeated measures data from all three data collections could only be obtained from

ten subjects at the experimental facility and five subjects at the control facility. The attrition was due to residents leaving the facility due to change in circumstances or death. A breakdown of resident attrition for each facility is in Table 3.

<u>Measures</u>

<u>Perceived</u> <u>influence</u>. Nursing aide perceived influence was measured with an adaptation of a scale published by Vroom (1960; Appendix C items 17-19 and 22-27). This measure served as a manipulation check of the participative decision making intervention. The items on the original Vroom (1960) scale ask respondents to report how much influence they have on their immediate supervisor. These items were amended to assess perceived influence on facility management, rather than just the immediate supervisor, because the intervention design was expected to impact perceptions of facility management.

Vroom reported .61 test-retest reliability over a seven month period. Scores on this scale correlated with some general satisfaction attitudes. The correlations were strongest for employees low and moderate in authoritarianism and for employees high and moderate in need independence (Vroom, 1960). These correlations logically reflect the expected response patterns.

The Vroom scale items are not highly homogeneous. Vroom reported only two of the six intercorrelations were significant above the .05 level. This may be because the

Table 3

Breakdown of Resident Attrition

	Cont*	Exp*	Total
Number of subjects - pretest	11	12	23
Number of subjects - posttest 1	5	10	15
Reason for attrition between pretest and posttest 1:			
Resident left facility	5	1	5
Resident illness	1	0	1
Resident visiting family	0	1	1
Resident attrition rate between pretest and posttest 1	55%	17%	35%
Number of subjects - posttest 2	5	10	15
No attrition between posttest 1 and posttest 2			

* Cont=Control, Exp=Experimental

original items ask about influence in different aspects of work. Pilot testing the original items yielded low inter-item reliabilities. Vroom's original scale consisted of four items. The revised scale used in this study includes five additional items and asks about participation and influence on service quality decisions specifically. The nine-item revised scale used in this study shows improved homogeneity. Internal consistency reliability measurement yielded an alpha coefficient of .89.

Satisfaction with influence. A questionnaire developed by Rafaeli (1985) measures satisfaction with influence as the gap or discrepency between desired influence and perceived influence. Smaller gaps indicate higher satisfaction. Rafaeli (1985) measured desired influence using a nine-point response format and perceived influence using a five-point response format. In this study, the response format for both questions is a five-point response scale. In addition, although Rafaeli used four desired-perceived influence item pairs in her study, only three were published in her paper. Attempts to contact the author to obtain the fourth item-pair were unsuccessful, so only the three item-pairs were used (Appendix C, items 1-3, 16, 20-21).

Internal consistency reliability is reported as .89 (Rafaeli, 1985). Satisfaction with influence correlated with quality circle membership and with the autonomy scale of the Job Characteristics Inventory (Sims, Szilagyi & Keller, 1976).

The pretest data for nursing aides using the Rafaeli scale yielded an alpha coefficient of .65, which is considerably lower than that reported by Rafaeli (1985). It is possible that the omission of one item-pair influenced this decrease in internal consistency reliability, as the alpha coefficient was computed for a shorter test.

Organizational commitment. Organizational commitment was measured with the Organizational Commitment Questionnaire (OCQ; Mowday et al., 1979; Appendix C items 38-39, 41-47, and 49-50). Mowday, et al., (1979) report that the internal consistency reliability of the OCQ is high, with a median coefficient alpha of .90 across eight samples. Factor analysis resulted in a single-factor solution (Mowday et al., 1979). Test-retest reliabilities are acceptable, ranging from .53 to .75 (Porter et al., 1974). The pretest administration of the OCQ to nursing aides yielded an acceptable alpha reliability coefficient of .84.

A short form of the OCQ omits 5 negatively worded items. Evidence presented by Tetrick and Farkas (1988) indicates that the positively worded items comprise a factor of value commitment and the negatively worded items comprise a factor of commitment to stay. Mowday, et al.'s (1979) data demonstrate that the short form is equivalent in terms of internal consistency. Tetrick and Farkas (1988) report that little validity is lost by using the short form, unless one is predicting turnover. Since other items (described below) were used in the current study to measure intention to quit, and the long version of the OCQ is redundant, the short

version of the OCQ was used in this study. However, one negatively worded item generally omitted from the short form was included because it measures reaction to organizational policies.

Turnover intention. A three-item scale from the Michigan Organziational Assessment Questionnaire (MOAQ; Cammann, Fichman, Jenkins & Klesh, 1983; Appendix C items 40, 48, and 51) was used to measure turnover intention. Cammann et al. (1983) report a Cronbach's alpha of .83, indicating acceptable internal consistency. The nursing aide pretest data yielded an alpha coefficient of .77 for turnover intentions.

Role conflict and role ambiguity. A scale developed by Rizzo et al. (1970; Appendix C items 52-67) was used to measure nursing aide role conflict and role ambiguity because these scales are used most frequently to measure these constructs (Fisher & Gitelson, 1983). A meta-analysis of role conflict studies found significant correlations between role conflict and organizational commitment, satisfaction with supervision, boundary spanning activities, and participative decision making (Fisher & Gitelson, 1983). One item in the Rizzo et al. (1970) scale has been reworded using language used in a role conflict scale used by Newton and Keenan (1987) because the terminology of the Newton and Keenan item reflects the nursing aide service dilemma more clearly. The Rizzo, House and Lirtzman item, "I work with two or more groups who operate quite differently" has been

replaced with the Newton and Keenan item, "I work with two or more groups of people who expect different things from me." The wording on two items was slightly altered to specifically ask about role conflict between management and resident expectations. Two additional items were created to specifically ask about role conflict between management and resident family expectations.

The original role conflict scale consists of eight items. Internal consistency reliabilities are typically in the eighties. For example, Rizzo et al. (1970) reports alphas of .82 and .81 for two samples. Internal consistency reliability for the ten-item role conflict scale taken by nursing aides in the present study was .84.

Breaugh (1980) compared the Rizzo et al. (1970) role ambiguity scale to measures of role ambiguity developed by Lyons (1971) and Beehr (1976). The Rizzo et al. scale had the greatest internal consistency and the most shared variance with the other scales. The role ambiguity scale consists of six items, with the same response format as the role conflict scale. Internal consistency reliabilties reported by Rizzo et al. (1970) are .80 and .78 for two samples.

In this study, the six-item role ambiguity scale was not altered in any way. Internal consistency reliability was .56. The two items in the scale which contributed to the low inter-item correlation are "I feel certain about how much authority I have" and "I know I have divided my time properly." The reason for the low correlations between these

items and the other items in the scale is unclear. Others have reported that these two items have clear factor loadings on the role ambiguity scale (Rizzo et. al, 1970; Schuler et. al, 1977; Tracy & Johnson, 1981).

Satisfaction of higher-order needs. Satisfaction of higher order needs, including opportunity for independent thought and action, participation in job-related decisions, personal growth, and worthwhile accomplishment was measured with a six-item need satisfaction scale from Lawler and Hall (1970; Appendix C items 4-15). Many of the items in this scale have also appeared in Hackman and Lawler (1971) and Porter (1961, 1962, 1968).

The need satisfaction scale emphasizes intrinsic rewards and need satisfaction rather than global job satisfaction (Porter, 1968). Each question consists of two items, one tapping the amount of the job characteristic the respondent would like and one tapping the amount perceived. The need satisfaction scale measures the difference or gap between desired and perceived need satisfaction; higher scores indicate low need satisfaction and lower scores indicate higher need satisfaction. Data collected from the nursing aides yielded difference scores with an alpha reliability coefficient of .78.

Lawler and Hall (1970) report that factor analysis indicated the items in this scale load on a factor separate from job involvement and intrinsic motivation items. The factor loadings of the need satisfaction items ranged from

.64 to .81 (Lawler & Hall, 1970). Items on this scale correlate with the core job dimensions of variety, autonomy, task identity and feedback from the job (Hackman & Lawler, 1971) and with perceived influence on department activities (Lawler & Hall, 1970).

Satisfaction with service role. The Minnesota Satisfaction Questionnaire social service scale (MSQ-S) measures satisfaction with service dimensions of the job, such as the ability to help others or to do things for other people (Weiss, Dawis, England & Lofquist, 1967; Appendix C items 28, 30, 33, 35, and 37). This is an important aspect of the nursing aide job, and an important area of satisfaction for nursing aides. One goal of the problem-solving intervention is to create a work environment where aides can overcome obstacles to quality care and provide better service. Weiss et al. (1967) report the five-item service scale has an internal consistency reliability of .90 for a sample of hospital nursing aides.

The present study found an internal consistency reliability of .89 for nursing aide responses to the MSQ-S scale.

Satisfaction with organizational policies. This scale asks about satisfaction with the way company policies are put into practice. This scale comes also from the Minnesota Satisfaction Questionnaire (Weiss, et. al, 1967; Appendix C, items 29, 31-32, 34, and 36). The authors report an internal consistency reliability coefficient of .90 for a sample of

hospital nursing aides who took the MSQ-O. The current study found an alpha coefficient of .88.

Service quality. The SERVQUAL scale (Parasuraman, et. al, 1986) was used to measure family, resident, and supervisor perceptions of service quality (Appendix B). The authors report that factor analyses of SERVQUAL data from customers in various service organizations reveal five distinct dimensions.

1) Reliability - performing service right the first time.
2) Responsiveness - willingness and ability to provide prompt service.
3) Assurance - knowledge and courtesy of employees and their ability to convey trust and confidence.
4) Empathy - caring, individualized attention to customers.
5) Tangibles - the appearance of physical facilities and personnel.

Parasuraman et. al (1986) report internal consistency reliability coefficients from .72 for tangibles to .86 for empathy. These dimensions of service quality directly reflect the key factors mentioned by nursing home residents in the National Citizens' Coalition for Nursing Home Reform study reported by Spalding and Frank (1986). The intervention described in this paper was not expected to influence tangibles, so this scale was not included.

SERVQUAL consists of a questionnaire assessing service quality expectations and a second questionnaire assessing service quality observations. The difference or gap between expectations and observations yields a dissatisfaction score.

To adapt the SERVQUAL questionnaire for this study, the wording of some items was changed to refer to nursing

aides. One item from SERVQUAL was omitted because it became redundant after the scale was reworded to refer to nursing aides.

A principal axis factor analysis with oblique rotation of the family pretest responses on SERVQUAL yielded no discernable factor structure for the difference scores (expected performance minus observed performance), suggesting a single factor underlying the items. After rotation, the first item accounted for 55.9% of the score variance. Further evidence for a single factor solution may be seen in the total scale internal consistency (alpha = .96). Because no meaningful distinction among factors was obtained, SERVQUAL was treated as measuring a single factor of perceived service quality. Supervisor responses to SERVQUAL were also separately subjected to a principal axis factor analysis with oblique rotation. The analysis yielded only one meaningful factor. Resident sample size was too small to be subjected to factor analysis.

Two SERVQUAL items were dropped from the analysis due to poor correlation with other items. These were the only two reverse-worded items in the scale, so it appears that the response format was misunderstood. Because the internal consistency of the SERVQUAL scale is so high, the effect of dropping these scores is negligible.

The alpha reliability coefficient for pretest family satisfaction ratings of aide service quality behavior was .96. The alpha reliability coefficient for supervisor

satisfaction ratings of aide service behavior during pretest data collection was .97. The alpha reliability coefficient for resident satisfaction ratings of aide service behavior during pretest data collection was .92.

Turnover. Nursing aide turnover rates between the pretest and final posttest were compared for the experimental and control facilities. Actual turnover was measured as a control variable. Quit rates were obtained from personnel records kept by the nursing supervisor. Fifty-six percent of nursing aides in the experimental facility units and fifty-two percent of those in the control facility left before the posttest phase.

Two-tailed t-tests were used to compare the pretest responses of nursing aides from both facilties who remained with the organization and those who quit. Turnover intention was the only quality of worklife variable measured during the pretest that predicted later turnover, ($\underline{t}$ = 2.11, p < .05).

Tenure. Years of nursing home employment and job tenure at this nursing home were assessed as control variables. T-test comparisons of the experimental and control groups on these variables were non-significant.

Pilot Study

Questionnaires. The aide and resident questionnaires were administered to a sample of the appropriate respondents as a pilot-test. Twenty-four nursing aides, five residents, and five family members participated in the pilot-test. The purpose of the pretesting was to test the clarity of instructions and questionnaire wording for the respondent

groups, determine the amount of time required to fill out the questionnaires, and anticipate any problems that might arise in administering the dependent variable measures. The results of the pretesting indicated that aides did not understand the response format when it was printed at the top of the page. The questionnaire was changed to include the response format separately for each question. The wording of some questions was revised slightly to improve comprehension.

Residents had difficulty understanding the reverse-worded items on the SERVQUAL questionnaire. These items were revised so the question format was consistent.

Behavior modeling film. Two service encounter scenarios involving typical complaints were developed based on critical incidents identified in interviews with administrators, nursing aides, family members and residents. The modeling stimulus was filmed in the experimental nursing home; a nursing aide, family member, and resident at the facility played themselves in the film. None of these volunteers had previous acting experience. Each actor's lines were written on cue cards taped to the wall.

The film was edited at the Old Dominion University Center for Academic Television. Before each key behavior was demonstrated in the film, a captioned freeze-frame appeared and the key behavioral step was read by a narrator. The script and behavior modeling steps are included in Appendix D.

Problem-solving meetings. Trial runs of the group problem solving intervention and behavior modeling film were conducted at two different nursing homes operated by the same organization. These nursing homes were not involved in the actual intervention.

The participative problem solving intervention was condensed into a single-meeting format following the same problem solving procedure. Nursing aides participated and developed three suggestions which the researcher wrote up for presentation to the administrator. The administrator accepted two of these suggestions and reported specific changes in organizational procedures.

Employee reactions to the behavior modeling film were assessed through a questionnaire and discussion. Eight of the ten nursing aides who participated could recall four out of six learning steps depicted in the film after two viewings, and participants described the stimulus situation as relevant and the modeling demonstration as credible.

Procedure

Service quality measurement. The family member who serves as the responsible party for each resident in the experimental and control groups was identified through patient records (see Appendix A for a detailed schedule describing the delivery of the intervention). A letter of introduction and a copy of SERVQUAL (Appendix B) were mailed to the family member, indicating that they would be contacted by telephone and asked to participate in a survey of nursing home residents' families. They were asked to fill out

SERVQUAL in advance and to keep it in a location near the telephone. The telephone interviewer who called each family was blind to the experimental condition of the respondent family. Family members were also blind to the experimental condition.

Residents served by experimental and control group nursing aides were also asked to complete SERVQUAL. All cognitively capable residents on participating units were invited to respond. The interviews were held privately in the residents' rooms. Each question and the response format were printed in very large type on a sheet of 8" x 11" white card stock. The resident could read the question while it was read aloud by the researcher. The resident's response to each item was marked on a computer optical scanning form by the researcher. If at any time during the interview the interviewer judged the resident to have a cognitive impairment that prevented them from answering the questions meaningfully, the researcher thanked them for their assistance and later discarded the responses. Confidentiality was strongly emphasized, and respondents were assured that results would not be available to the nursing staff, resident names would not be divulged, and the information would be used for research purposes only.

Supervisory charge nurses were asked to rate each nursing aide on the appropriate shift with the SERVQUAL questionnaire. This was done during the supervisor's shift in either the conference room or the supervisor's office.

Confidentiality of responses was emphasized, and the supervisors were told that results would only be used for research purposes, would not be seen by nursing home management, and would not affect the aides in any way. A copy of these instructions is included in Appendix B.

Employee and organizational measures. Experimental and control work groups received pretest administration of the perceived influence, satisfaction with influence, turnover intention, commitment, role conflict, role ambiguity, need satisfaction, satisfaction with service role and satisfaction with organizational policies measures. These measures were administered to small groups during the workday in an unused conference room or classroom. Confidentiality was emphasized, and questionnaires were collected immediately by the researcher. It was strongly emphasized that the questionnaires were not part of the organization's regular Employee Opinion Survey, but were instead part of a separate research study and would not be seen by management. Each aide was assigned a two to four digit number at the time she received the questionnaire. Aides were asked to write this number on the last page of the questionnaire. This was done so that aides did not need to write their names on the questionnaires.

Preparing for participation. A training preview was presented to the Director of Nursing, Educational Coordinator, Nursing Supervisors and charge nurses. The corporate Director of Human Resources was also present. The researcher and Director of Human Resources described the

participative problem solving meeting concept and philosophy; benefits to management, employees, and residents; how management can help the program to succeed; new roles for employees and managers; and the specific steps used in the participative problem solving meetings, including brainstorming and cause-effect analyses. Nursing supervisors and charge nurses were asked for suggestions on implementation and the best times to schedule meetings. Materials used in this meeting are in Appendix E.

A training preview for the nursing aides in the experimental group discussed the concept of functional service quality; the participative problem solving meeting concept and philosophy; the benefits to employees, residents, and the organization; the new roles and behaviors associated with the participative meeting concept, including sharing of ideas and disagreement with ideas rather than people; and the specific activities that will take place in the problem solving meetings, including brainstorming and cause-effect analysis. Materials used in this meeting are in Appendix F.

Aides attended a weekly one-hour participative problem-solving meeting, with other members of their work group, for a seven-week period. Each week, two separate meetings were held during each shift, so that an entire shift would never be removed from a unit. Group size generally ranged from four to six.

Intervention: Meeting 1 - Discussing problems. The first meeting was attended by nursing aides, the facility's

education coordinator, and the researcher. The impact of nursing aide care on addressing resident social and emotional needs and improving resident quality of life was discussed.

Brainstorming was used to identify a range of problems. These problems were listed for future referral on a large sheet of newsprint. The many ideas generated by the nursing aides were grouped into categories by the aides with the help of the researcher.

Meetings 2 and 3 - Cause-effect analysis. Cause-effect analysis (also called fishbone analysis or Ishikawa diagram; Crocker, Chiu & Charney, 1984) was used to examine causes that contribute to the major problem categories developed in the first meeting. This analysis involves probing various factors which contribute to the problems identified. Categories that were discussed included: (1) organizational policies and practices, and personnel procedures, short staffing, reward system; (2) poor availability of specific supplies such as linens, blood pressure cuffs, thermometers, disposable diapers; (3) supervisors and charge nurses who have an authoritarian way of issuing orders, and who do not help out when staffing levels are short; (4) demanding customers (residents and family members) who have unrealistic expectations for the level of service provided.

Employees brainstormed factors (subcauses) that they felt contributed to the above situations; these subcauses were written in the appropriate areas on the cause-effect diagram. Employees then reviewed each idea to decide if it had a major influence on resident or family satisfaction.

Those subcauses viewed as important by a majority of employees were circled. Employees ranked the problems according to the amount of influence the problems were seen as having on resident or family satisfaction.

Meeting 4 - Select a problem and brainstorm solutions. The next step was a general discussion of the two problems ranked as most serious. The relationships between the perceived subcauses and the problem were explored, and additional subcauses were ranked according to strength of influence. For each of the two problems, employees brainstormed possible solutions and all ideas were listed on newsprint. Employees were asked not to evaluate any of these ideas that day, but instead to come up with as many different solutions as possible.

Meeting 5 - Evaluate solutions. Additional solutions to selected problems were solicited. Each potential solution was assessed according to several criteria: (1) Will it improve resident or family satisfaction?; (2) Is this solution cost-effective?; (3) Will the solution be acceptable to administration, residents, and resident families?; (4) What are some possible negative outcomes that could result from this solution; and (5) how can we prevent these negative outcomes from occuring? One or more solutions for each problem were selected by consensus.

Meeting 6 - Develop action plans. Employees outlined the steps to be taken to implement the solution. For example, one solution involved writing a handbook to improve

communication between nursing aides and family members. In this meeting, nursing aides brainstormed information they wanted in the handbook and how this information should be worded. For other suggestions, details or changes in procedures or practices needed were listed.

Meeting 7 - Finalize action plans. Nursing aides finished outlining specific ideas for implementing the solutions. This meeting further developed and finalized the details worked on in the previous meeting.

Suggested solutions were prepared by the researcher for presentation to management, and were presented to the Facility Administrator, Director of Nursing, Educational Coordinator, and corporate Director of Human Resources. This procedure was used because both facility and corporate management felt uncomfortable with a process where the aides presented the solutions directly to management. Management wanted to avoid a situation where employees would be directly making "demands" for change that would possibly create confrontation.

Management decided to adopt eight out of eleven ideas which were suggested by the nursing aides as a result of the participative problem solving meetings. The Administrator held a meeting for all aides in the facility. He thanked the aides for their hard work and described the changes that were going to be implemented and those that were going to be examined further. Of the eight ideas that were officially accepted, four were fully implemented, two were implemented but discontinued, and two were not implemented at

all. The specific solutions suggested, accepted, and implemented are described in the Results section.

Meeting 8 - Behavior modeling training session. The behavior modeling training film was used to depict key behaviors for handling common customer complaints. Two five-minute sequences were developed to depict (1) a service encounter between a nursing aide and a resident with a complaint, and (2) a service encounter between a nursing aide and a family member with a complaint. The script used in the behavior modeling film and the key behaviors used in the training are included in Appendix D.

The behavior modeling training session was one and one-half hours long, and involved two to three nursing aides at one time. A list of the key behaviors involved in handling a customer complaint was given to each participant, read aloud, and discussed. The steps were also presented and clearly labeled in the film. Each trainee viewed the behavior modeling film twice, and then practiced with either the Director of Nursing or Assistant Director of Nursing (one of whom attended all behavior modeling training sessions), the researcher, or another trainee. Additional modeling of the key behaviors was performed by the researcher and the Director or Assistant Director of Nursing. Feedback on reproduction of the key behaviors was given, and the practice repeated until the trainers both agreed that the trainee satisfactorily demonstrated all the key behaviors involved in handling the complaints.

Results

Pretest Group Comparisons

Pretest scores for nursing aides in the experimental and control groups were compared to determine the comparability of the two groups prior to the intervention. Two-tailed t-tests were used to examine potential differences in satisfaction with influence, turnover intention, organizational commitment, higher-order need satisfaction, role conflict, role ambiguity, service role satisfaction, and satisfaction with organizational policies. There were no significant differences, suggesting the equivalence of groups on these factors. Education, tenure at the nursing home, and years of job experience, measured as control variables, were also not significant.

The two groups were found to vary on perceived influence (adapted from Vroom, 1960); $t(23) = 2.40$, $p < .05$). Means, reported in Table 4, indicate that the control group scores on this scale were higher at pretesting. This makes it possible that changes in group means at the posttest data collections may be due to statistical regression, rather than the intervention.

Family, supervisor, and resident pretest scores on service quality dissatisfaction (the difference or gap between expected and observed service quality) and observed service quality for the experimental and control groups were compared with two-tailed t-tests. Scores for the family

Table 4

<u>Means</u> <u>and</u> <u>Standard</u> <u>Deviations</u> <u>for</u> <u>Independent,</u> <u>Dependent,</u> <u>and</u>
<u>Control</u> <u>Variables</u> <u>for</u> <u>Nursing</u> <u>Aides</u> <u>and</u> <u>for</u> <u>Family,</u>
<u>Supervisor,</u> <u>and</u> <u>Resident</u> <u>Service</u> <u>Quality</u> <u>Dissatisfaction</u> <u>and</u>
<u>Observation</u> <u>Ratings</u>

Scale	Condition	Time 1 X (SD)	Time 2 X (SD)	Time 3 X (SD)
Nursing Aide Variables				
Perceived Influence	Control	3.63*(.72)	3.19 (.96)	3.13 (.96)
	Experimental	2.87*(.85)	2.99 (.69)	3.19 (.65)
Satisfaction With Influence**	Control	.57 (1.23)	.97 (1.30)	.83 (.89)
	Experimental	1.31 (1.17)	1.14 (.71)	1.10 (.83)
Turnover Intention	Control	1.83 (1.45)	2.37 (1.96)	3.87 (2.03)
	Experimental	2.67 (1.3)	2.84 (1.87)	2.48 (1.72)
Commitment	Control	5.29 (.52)	5.07 (.95)	5.00 (1.34)
	Experimental	4.82 (.70)	5.14 (.82)	4.99 (2.19)
Role Conflict	Control	3.52 (1.57)	4.16 (1.35)	4.37 (1.34)
	Experimental	3.92 (1.31)	4.25 (1.47)	4.38 (1.53)
Role Ambiguity	Control	2.65 (1.12)	2.10 (.63)	2.32 (.86)
	Experimental	2.33 (.96)	2.20 (.80)	2.00 (.77)
Higher-order Need Satisfaction**	Control	1.80 (1.53)	1.90 (1.47)	1.98 (1.96)
	Experimental	2.27 (1.38)	2.11 (1.09)	1.89 (1.02)
Service Role Satisfaction	Control	4.32 (.62)	4.16 (1.20)	3.82 (1.12)
	Experimental	3.89 (1.20)	4.32 (.82)	4.04 (1.10)
Org. Policy Satisfaction	Control	3.50 (.88)	3.36 (1.25)	3.04 (1.00)
	Experimental	2.86 (1.09)	3.15 (.71)	3.15 (.91)

Table 4 (continued)

Means and Standard Deviations for Independent, Dependent, and

Control Variables for Nursing Aides and for Family,

Supervisor, and Resident Service Quality Dissatisfaction and

Observation Ratings

Scale	Condition	Time 1 X̄ (SD)	Time 2 X (SD)	Time 3 X (SD)
Service Quality Dissatisfaction**				
Family	Control	.92 (.85)	1.31 (1.10)	1.28 (1.20)
Supervisor	Control	.24 (.62)	.41 (.72)	.57 (.52)
Resident	Control	.54 (.39)	.99 (.66)	.85 (1.32)
Family	Experimental	1.57 (1.5)	1.70 (1.63)	1.79 (1.54)
Supervisor	Experimental	.20 (.40)	.24 (.93)	.46 (.85)
Resident	Experimental	.49 (.89)	1.08 (.56)	1.10 (1.00)
Service Quality Observations				
Family	Control	5.44 (.85)	5.10 (.94)	5.13 (1.08)
Supervisor	Control	6.28 (.40)	6.23 (.40)	6.23 (.59)
Resident	Control	6.09 (.34)	5.60 (.40)	5.46 (1.30)
Family	Experimental	4.91 (1.30)	4.86 (1.43)	4.76 (1.33)
Supervisor	Experimental	6.55 (.44)	6.20 (.98)	6.07 (.78)
Resident	Experimental	5.86 (1.26)	5.40 (.88)	5.47 (1.13)

* $p < .05$
** Difference scores

member, supervisor, and resident pretest ratings of service
quality showed no differences between experimental and
control groups for service quality dissatisfaction scores or
service quality observation scores (see Table 4). The
pretest comparisons indicate that the experimental and
control groups were comparable regarding service quality as
perceived by family, supervisors, and residents during the
pretesting period.

Power Analysis

A power analysis for the nursing aide dependent and
control variables was conducted. The procedure is described
in Cohen (1977). With a significance criterion of .05 and
N=12, power was determined to be .23 for a medium effect size
and .53 for a large effect size. The conventions proposed by
Cohen (1977) were used as the standards for medium and large
effect sizes. Therefore, the power to detect intervention
effects was weak.

A power analysis for the service quality dependent
variable was also conducted (Cohen, 1977). With a
significance criterion of .05, and an average sample size of
12, power=.25 for a medium effect size and .66 for a large
effect size. The power of the statistical tests to detect
significant differences between groups was low.

Sphericity and Homogeneity Assumptions

The violation of sphericity can positively bias
results, increasing the probability of Type I error of the
univariate F test in a repeated measures design (Boik, 1981).
Kesselman, Rogan, Mendoza and Breen (1980) present evidence

that preliminary testing for sphericity is of little value. For nonsignificant results, this violation of sphericity can be ignored, because no Type I error has occurred.

Nursing aide data. Data from all of the nursing aide quality of worklife variables met sphericity assumptions. Box's M was used to determine whether the data deviated from homogeneity of dispersion assumptions. For the nursing aide quality of worklife perceptions, Box's M was non-significant at the .05 probability level for perceived influence, satisfaction with influence, organizational commitment, turnover intention, role conflict, role ambiguity, and higher-order need satisfaction. Box's M was significant at the .05 level for satisfaction with service role, with $M = 21.50$, and for satisfaction with organizational policies, with $M = 21.65$.

Family, supervisor, and resident service quality ratings. The service quality dissatisfaction and observation scores from family members, supervisors, and residents violated the sphericity assumption ($W = .87$ for dissatisfaction and $W = .74$ for observations ($p < .05$). The data did not meet the homogeneity of dispersion criterion. Families, supervisor, and resident dissatisfaction scores resulted in Box's $M = 81.50$. The observation scores resulted in Box's $M = 89.67$.

Manipulation Checks

Nursing aide attendance in group meetings, self-reported use of the behavior modeling steps, and hypotheses

one through three were examined as part of the manipulation check.

Nursing aide meeting attendance. Seven of fourteen aides involved in the participative problem-solving meetings attended all seven meetings. Four aides attended six meetings and two aides attended five meetings. One aide attended four meetings because she was hired after the meetings had begun. Aides missed meetings due to vacations or a scheduled day off. Aides who were present in the facility on meeting day always attended. All experimental group nursing aides attended the behavior modeling training meeting. If more than one aide missed a meeting, a make-up meeting was held later in the week.

Use of behavior modeling steps on the job. Experimental group aides were asked during posttesting how frequently they actually used the modeled behaviors on the job during the previous month. The average number of reported uses during the first posttest was 5.1 times. At the second posttest the average reported use was 3.5 times.

Hypothesis one. The participative decision making intervention was expected to influence policies, practices, and procedures in the nursing home. Nursing aide suggestions, developed during the group meetings, are presented in Table 5. Eleven suggestions were presented to management. Four of these suggestions were accepted and implemented. Two suggestions were accepted and implemented, but discontinued after the first posttest. Two suggestions

Table 5

Nursing Aide Suggestions Developed During Intervention,

Management Acceptance, and Implementation

Suggestion	Acceptance	Implementation
Aides develop handbook for distribution to residents' families. Goal - To improve communication, clarify aide role, present aides' ideas on how families can help improve resident quality of life, lower unrealistic family expectations.	Yes	Yes
Communication skills training for supervisors. Goal - better aid-supervisor relations.	Yes	Yes
Have laundry deliver resident clothing hanging on rack, instead of folded. Goal - Save time spent folding and unfolding laundry; clothing less wrinkled.	Yes	Yes
Designate qualified aides as mentors to help new aides during their first week. Goal - improve new aide work performance and reduce new aide turnover.	Yes	Yes
Dietary instruction cards re-written legibly and placed in one location on tray. Place dietary trays in rack in room order. Goal - Save time, deliver food warmer.	Yes	Yes, but discontinued
Reward aides for good attendance. Goal - reduce absenteeism and short staffing.	Yes	Yes, but discontinued

Table 5 (continued)

Nursing Aide Suggestions Developed During Intervention,

Management Acceptance, and Implementation

Director of Nursing and Administrator hold regular staff meetings with aides. Goal – improved understanding and communication.	Yes	No
Admissions process should present realistic preview of level of care. Goal – to prevent expectations for care beyond capacity of system.	Yes	No
Compensate aides who work on an understaffed unit by letting them split the pay of the absent aide. Goal – pay equity and morale.	No	No
Give aides a regular day off and they will be less likely to call in sick. Goal – improve aide morale.	No	No
Have needed supplies readily available and in good condition. Permit double padding under incontinent residents. Goal – good resident care.	No	No

were accepted, but not implemented by management. Three suggestions were not accepted by management.

The two suggestions that were initially adopted but discontinued after several months were both suggestions that required an ongoing commitment by facility management. The attendance reward was discontinued by the Assistant Director of Nursing because she felt that the attendance problem had not improved significantly, and because she felt that aides were not appreciative enough to make it worth her effort. The attendance reward was still in effect during the first posttest, but had been discontinued by the third data collection. The change in presentation of meal trays by dietary employees also lasted through the second data collection, but was discontinued by the time the third data collection occurred. This change in procedure failed largely because it required the facility administrator to manage the behavior of the dietary director, and required the dietary director to manage the behavior of the food service employees who prepare meal trays. Because he was not part of the nursing chain of command, the dietary director had not been involved in the planning and implementation of the intervention. Consequently, he did not understand the reason for the changes and was not committed to the change process. The facility administrator had been involved in planning and implementing the intervention, but apparently his commitment and management skills were not strong enough to impose a change on the dietary department director and follow-up on that directive.

Hypothesis 2. Hypothesis two is a manipulation check to determine whether the intervention was effective in changing aide perceptions of decision making influence. Nursing aide perceptions of perceived influence showed a significant treatment effect and a significant interaction effect for the time by treatment interaction. These results may be biased due to pretest differences between the experimental and control groups on this measure. F values are reported in Table 6.

Hypothesis 3. Hypothesis three is also a manipulation check on the implementation of the intervention itself. There were no differences between the experimental and control groups on satisfaction with decision making influence. This hypothesis was not supported.

Intervention Effectiveness

Hypotheses 4 through 10. These hypotheses were tested through a 2 (experimental and control groups) X 3 (time) ANOVA design, with repeated measures on the last factor. The data support hypothesis 4, regarding the effect of the intervention on turnover intention. F values from the analysis of variance are reported in Table 6. Employee turnover intention shows both treatment and treatment by time interaction effects. Turnover intention increased for subjects in the control group with each data collection. Scheffe's procedure compared the means in a post-hoc analysis. Significance levels were set at .10 because the Scheffe procedure is a conservative estimate of the

Table 6

Analysis of Variance for Nursing Aide Quality of Worklife
Variables

Variable	Source of Var.	df	MS	F value
Perceived Influence	Between subjects			
	Treatment	1, 23	1.64	1.18
	Error	23	1.38	
	Within subjects			
	Time x Treatment	2, 46	1.04	3.92*
	Time	2, 46	.16	.61
	Error	46	.26	
Satisfaction With Influence	Between subjects			
	Treatment	1, 23	1.32	.75
	Error	23	1.76	
	Within subjects			
	Time x Treatment	2, 46	.48	1.81
	Time	2, 46	.28	1.06
	Error	46	.27	
Turnover Intention	Between subjects			
	Treatment	1, 23	.01	.00
	Error	23	7.07	
	Within subjects			
	Time x Treatment	2, 46	8.55	8.98**
	Time	2, 46	5.19	5.45**
	Error	46	.95	
Organizational Commitment	Between subjects			
	Treatment	1, 23	.35	.21
	Error	23	1.70	
	Within subjects			
	Time x Treatment	2, 46	.51	1.00
	Time	2, 46	.08	.15
	Error	46	.51	

Table 6 (continued)

<u>Analysis of Variance for Nursing Aide Quality of Worklife Variables</u>

<u>Variable</u>	<u>Source of Var.</u>	<u>df</u>	<u>MS</u>	<u>F value</u>
Role Conflict	<u>Between subjects</u>			
	Treatment	1, 23	.51	.10
	Error	23	5.15	
	<u>Within subjects</u>			
	Time x Treatment	2, 46	.24	.47
	Time	2, 46	2.77	5.39**
	Error	46	.51	
Role Ambiguity	<u>Between subjects</u>			
	Treatment	1, 23	.58	.47
	Error	23	1.25	
	<u>Within subjects</u>			
	Time x Treatment	2, 46	.35	.71
	Time	2, 46	.89	1.79
	Error	46	.50	
Need Satisfaction	<u>Between subjects</u>			
	Treatment	1, 23	.68	.40
	Error	23	1.72	
	<u>Within subjects</u>			
	Time x Treatment	2, 46	.47	.23
	Time	2, 46	.06	.03
	Error	46	2.03	

Table 6 (continued)

<u>Analysis</u> <u>of</u> <u>Variance</u> <u>for</u> <u>Nursing</u> <u>Aide</u> <u>Quality</u> <u>of</u> <u>Worklife</u>
<u>Variables</u>

<u>Variable</u>	<u>Source</u> <u>of</u> <u>Var.</u>	<u>df</u>	<u>MS</u>	<u>F</u> <u>value</u>
Satisfac-tion With Service Role	<u>Between</u> <u>subjects</u>			
	Treatment	1, 23	.00	.00
	Error	23	2.08	
	<u>Within</u> <u>subjects</u>			
	Time x Treatment	2, 46	.77	1.34
	Time	2, 46	.58	1.01
	Error	46	.57	
Satisfac-tion With Organiza-tional Policies	<u>Between</u> <u>subjects</u>			
	Treatment	1, 23	1.12	.61
	Error	23	1.82	
	<u>Within</u> <u>subjects</u>			
	Time x Treatment	2, 46	.84	1.64
	Time	2, 46	.15	.30
	Error	46	.51	

*<u>p</u> < .05   **<u>p</u> < .01

differences among the means. A significant difference ($p < .10$) was found for the comparison of control group turnover intention between the first and third data collections. The Scheffe procedure did not yield significant differences for the experimental and control groups at pretest, posttest, or follow-up data collections. Because the Scheffe procedure is extremely conservative, Tukey's HSD procedure was also employed. The Tukey post-hoc analysis resulted in HSD = 1.30 ($p < .05$). A sigificant difference was found between the experimental and control groups at the follow-up posttest. In addition, significant differences were found for control group turnover intention at each data collection. Significant differences were found between pretest and follow-up posttest and between posttest and follow-up posttest.

No effects were found for hypothesis 5 through 10. Need satisfaction, role conflict, role ambiguity, satisfaction with service role, and satisfaction with organizational policies did not show significant treatment effects or treatment by time interaction effects (see Table 6).

Hypothesis 11. Hypothesis 11 predicted that the intervention would improve resident, family, and supervisor satisfaction with service provided by nursing aides. Satisfaction with service is measured through SERVQUAL in two ways. SERVQUAL asks the respondent to rate expected and observed service behaviors. "Dissatisfaction" scores are computed by subtracting the observed service quality rating from the expected service quality rating for each item.

"Observation" scores are simply taken directly from the observed service quality ratings. Means and standard deviations are reported in Table 4, and F values for the dissatisfaction and observation scores are listed in Table 7.

A 2 (experimental and control groups) x 3 (family, supervisor, and resident ratings) x 3 (time of measurement) ANOVA with repeated measures on the last factor analyzed service quality perceptions. The procedure used for the analysis is described in O'Brien and Kaiser (1985).

Hypothesis 11 is not supported by the data. For service quality dissatisfaction, the within-subjects effect for time was found, with $F(2) = 6.51$, $p < .01$. A significant source effect was found, with $F(2) = 7.58$, $p < .01$. Time x source yielded an $F(4) = .60$, $p > .05$. The hypothesized treatment effects were not significant. Treatment yielded an $F(1) = .35$, $p > .05$. Treatment x time yielded an $F(2) = .16$, $p > .05$. Treatment x time x source yielded an $F(4) = .21$, $p > .05$.

The data on service quality observations also show no significant treatment effects. A within-subjects effect for time was found, with $F(2) = 6.32$, $p < .05$. A source effect was found, with $F(1) = 12.36$, $p < .01$. Time x source yielded an $F(4) = .44$, $p > .05$. Treatment yielded an $F(1) = .49$, $p > .05$. The treatment x time x source analysis yielded an $F(4) = .73$, $p > .05$. Treatment x time yielded an $F(2)=.00$, $p > .05$.

Table 7

<u>Analysis</u> <u>of</u> <u>Variance</u> <u>for</u> <u>Family,</u> <u>Nursing</u> <u>Supervisor,</u> <u>and</u>

<u>Resident</u> <u>Ratings</u> <u>of</u> <u>Service</u> <u>Quality</u> <u>Outcomes</u>

Variable	Source of Var.	df		MS	F value
Service Quality Dissatis- faction	<u>Between subjects</u>				
	Treatment	1,	66	1.10	.35
	Source	2,	66	23.85	7.58**
	Treatment x Source	2,	66	2.13	.68
	Error		66	3.15	
	<u>Within subjects</u>				
	Time	2,	132	1.87	6.51**
	Treatment x Time	2,	132	.04	.16
	Source x Time	4,	132	.17	.60
	Treatment x Source x Time	4,	132	.06	.21
	Error		132	.29	
Service Quality Observa- tion	<u>Between subjects</u>				
	Treatment	1,	69	1.23	.49
	Source	1,	69	31.00	12.36**
	Treatment x Source	2,	69	.88	.35
	Error		69	2.51	
	<u>Within subjects</u>				
	Time	2,	138	1.99	6.32**
	Treatment x Time	2,	138	.00	.00
	Source x Time	4,	138	.14	.44
	Treatment x Source x Time	4,	138	.23	.73
	Error		138	.32	

*p < .05   **p < .01

Discussion

The intervention in service quality had two major goals. The first was to improve nursing aide perceptions of quality of worklife variables. This goal met with limited success. The second goal was to improve family, supervisor, and resident opinions of aide service performance. This goal was not achieved.

Nursing Aide Quality of Worklife

Hypothesis 1 was a manipulation check to make sure that the intervention in decision making had an impact on organizational policies, practices, and procedures. This hypothesis received some support because practices and procedures were changed as a result of the nursing aides' suggestions. However, several suggestions were not implemented. Suggestions that required a change in policy or ongoing support from management were not implemented, or were implemented and discontinued. This may have limited the effectiveness of the intervention.

The positive effect of the intervention on perceived influence measured through the adapted Vroom scale supports Hypothesis 2. This hypothesis was tested as a manipulation check to determine whether the intervention achieved the goal of increasing employee feelings of participation in decision making.

When satisfaction with influence was measured instead of perceived influence, the positive findings no longer appear. The weak internal consistency of the Rafaeli scale may have contributed to the lack of a significant effect for

Hypothesis 3. Also, the failure of management to implement several nursing aide suggestions may have reduced or lessened the nursing aides' satisfaction.

Hypothesis 4 predicted that the intervention would reduce turnover intention. This hypothesis was supported by the data. While the experimental group's turnover intentions decreased slightly over time, the control group's turnover intentions increased over each data collection. There were no significant differences in actual turnover for the experimental and control groups.

Hypothesis 5 was not supported by the data on organizational commitment. Although the data show that commitment increased for the experimental group and decreased for the control group between pretest and posttest, the difference was not statistically significant. The lack of significance for the commitment data may be related to the fact that management did not implement specific actions that would have signalled stronger support for the intervention. An example of this weak support is management preference that employee suggestions be presented to management by the researcher rather than the employees themselves. Another example is the lack of management follow-through on key suggestions such as the request for regular aide-management meetings.

Hypothesis 6 predicted a post-intervention reduction in role conflict. In fact, role conflict had a significant increase over time; this increase occured in both

experimental and control groups. This increase in aides' reported role conflict at both nursing homes may be the result of instrumentation effects. The questionnaire may have heightened awareness of role conflict and thus increased aides' attention to service dilemmas.

The structural changes associated with the intervention may not have been strong enough to impact role conflict. Apparently, role conflict is to a degree inherent in the role of the nursing aide. Many organizational policies, procedures and practices that create service dilemmas for nursing aides are difficult to change without strong management commitment <u>and</u> changes in the cost structures that lead to inadequate staffing of nursing aide shifts. Much role conflict is inherent in a nursing home environment in which understaffing prevents nursing aides from taking the time to give good service to residents. The intervention was not successful in addressing a major underlying cause of role conflict and role ambiguity. This underlying cause is the aide-to-resident staffing ratio. Almost every shift is understaffed. This leaves the nursing aides little time or energy to devote to attentive, prompt, or flexible service to customers. The nursing aides cannot simultaneously accomplish the work assigned and satisfy resident needs for attention and care. Aide suggestions that could have improved understaffing were either not accepted or discontinued by management.

Hypothesis 7, regarding the effect of the intervention on role ambiguity, was not supported. While the group

meetings and behavior modeling training should have served to clarify aide responsibilities regarding service to residents and family members, it apparently did not have this effect. The intervention may not have been strong enough to create meaningful reduction in role ambiguity. Role ambiguity is partly due to an organizational environment where even the supervisors may not really expect the aides to be able to fulfill certain performance requirements. Because shifts are usually operating below the appropriate staffing ratio, many responsibilities that aides are supposed to perform according to written policy are actually not done. At times supervisors stated that it is not physically possible for aides to perform all scheduled care. Other times supervisors stated that aides were still expected to do all scheduled work. Therefore, a certain amount of ambiguity is inherent in this organizational environment. Supervisors may not really expect aides to accomplish all the tasks assigned. In this light, the lack of influence on role ambiguity is not surprising.

Hypothesis 8, predicting increased satisfaction of higher-order needs for the experimental group nursing aides, was not supported by the data. Need satisfaction decreased slightly for the control and increased for the experimental group. The changes were not strong enough to be statistically significant.

The intervention may have been too limited to really give nursing aides an opportunity to gratify higher-order

needs on the job. While the intervention itself may have provided an opportunity to satisfy these needs, this did not translate to the aides' everyday work environment. Although some aspects of the work environment were altered by the intervention, the job itself did not change in ways expected to increase satisfaction of higher-order needs. The only suggestion that called for changes in the job itself that might be expected to satisfy higher-order needs was the student liaison program. As student liaisons, nursing aides took on a mentoring and teaching role with newly hired nursing aides. However, only a few aides actually are needed in this role. This change did not affect all nursing aides in the experimental group.

Hypothesis 9 predicted that the intervention would increase aides' satisfaction with the service aspects of their role. Constraints within the organizational environment that make it difficult to give good service to customers have been discussed above. The intervention was not powerful enough to overcome the bureaucratic orientation of the facility.

Hypothesis 10 predicted that the intervention would increase employee satisfaction with organizational policies. The data do not support this conclusion. Although the intervention did result in changes in several organizational practices, the suggestions that required actual policy changes were vetoed by management. For example, aide suggestions regarding changes in staffing policies regarding days off and compensation for understaffed shifts were not

accepted. Management felt that financial constraints precluded implementation of changes in staffing levels. The negative influence of staffing policies could not be addressed by the nursing aides. Therefore, a lack of change on this variable is not surprising.

To review the above findings, the manipulation check found the intervention did result in several changes in organizational practices and did increase perceived influence in decision making. However, there is no evidence that the intervention impacted nursing aide perceptions of the quality of worklife variables measured, with the exception of turnover intentions. While some of the reasons for these outcomes have been discussed above, subject mortality on the part of nursing aides also played a role in the lack of significant differences between groups. Nursing aide turnover had a major impact on sample size, and consequently the power of the statistical tests to detect group differences. Subject mortality did not differentially affect either control or experimental groups, but affected both. About half of the nursing aides in both control and experimental groups quit their jobs sometime between the pretest and final posttest, leaving only ten subjects in the control group and fifteen subjects in the experimental group from whom repeated measurements could be obtained. As reported earlier, there were no significant differences in the turnover rates for the two facilities, so the turnover cannot be attributed to the intervention. The resulting sample size reduced statistical

power and increased the probability of Type II error. The impact of nursing aide mortality on service quality outcomes will be addressed below.

When the mean scores for several nursing aide quality of worklife variables are examined, it appears that the experimental group did experience more improvement over time than did the control group. Perceived influence, higher-order need strength, and satisfaction with organizational policies show positive trends for the experimental group across all three data collection time periods and negative trends for the control group. Organizational commitment and satisfaction with service role show positive trends favoring the experimental group for the initial post-test. Correlations between the nursing aide quality of worklife measures and between these variables and supervisor ratings of service quality are in Appendix H.

Family, Supervisor, and Resident Service Quality Perceptions

The major purpose of this study was to improve functional service quality. Hypothesis 11 predicted that the intervention would improve family, supervisor, and resident satisfaction with nursing aide service quality performance. The data do not support any of these hypotheses.

Service quality dissatisfaction and observation scores showed no treatment effect. A significant time effect was due to small increases in dissatisfaction and decreases in observed service quality reported by family, supervisor, and resident respondents from both experimental and control groups across each data collection. Because this effect was

found for both experimental and control group customers, and across all three sources, it is likely to be due to increased respondent sensitivity to service quality issues. Respondents may have paid more attention to aide service quality behaviors as a result of the survey and the heightened salience of this behavior may have influenced subsequent responses. In addition, it is also possible that respondents felt more secure regarding confidentiality and consequently more comfortable telling the researcher what they really felt during each data collection.

Conclusions and Recommendations

Turnover among nursing aides was a major problem in this study. This may be a problem researchers face in assessing organizational change in many types of service organizations that have high turnover rates. Repeated measures designs may be limited by subject mortality unless the time period over which repeated measures are assessed is of relatively short duration. Unfortunately, a reduced time frame will limit the ability to introduce meaningful change in organizations. Employee participation and involvement in organizational change and decision making takes time, and the process of organizational development and change cannot be accomplished quickly. This is a concern that must be addressed in order to conduct research in service organizations characterized by high employee and customer turnover.

The high mortality rate of the nursing aide subjects had an effect on the study in addition to the reduction in

statistical power addressed above. The family and resident respondents who reported their service quality perceptions over three data collections were not only served by the aides who participated in the intervention but by aides who were newly hired to replace those who left. This served to "dilute" the impact that the intervention with nursing aides had on family and resident respondents. Each resident and family member is not served by one particular aide every day. Therefore, a resident may be cared for by one aide on one day and another aide the next. When family and residents responded to SERVQUAL, they did not rate a specific aide but rather their overall impression of a number of aides who provided care in the past month. Although the intervention did result in structural and process changes in the workplace (described in Table 5) that had the potential to affect all aides on the unit and all family and resident customers, it is still likely that the overall impact of the intervention was reduced by the high level of aide turnover. In addition, some of the structural changes that would have affected all aides were only partially implemented by management, or not implemented at all. This further served to compromise the effectiveness of the intervention. One potential solution to this problem would be to have customers rate specific aides they see frequently. This would be difficult unless nursing aides were assigned to work with specific residents during the length of the study. This type of change in the care routine would be expected to improve the quality of service even without additional intervention. However, if both

experimental and control nursing homes had this same policy it would still be possible to evaluate the effect of the intervention.

Another sample-size related problem was the number of residents who were capable of responding to the SERVQUAL questionnaire. Every resident who was intellectually capable of responding to the questionnaire was invited to do so. Pretest data collection found eleven capable subjects in the control facility units and twelve capable subjects in the experimental facility units. Repeated measures data for all three data collection times could only be obtained for four control group residents and eight experimental group residents. Only three qualified residents declined to participate in the study. The major reason for the low number of resident respondents is the large proportion of nursing home residents who have cognitive impairments that prevent them from understanding the survey questions and responding meaningfully.

The SERVQUAL (Parasuraman, Zeithaml & Berry, 1986) ratings showed a restricted range, with almost all respondents using the positive end of the scale. Standard deviations were rather small, limiting the usefulness of the scale in making fine distinctions among levels of service quality. Respondents used the positive end of the scale almost exclusively. Although SERVQUAL is one of the only measurement instruments with demonstrated reliability and validity that is available for rating service encounter

quality, it may be subject to strong social desirability bias when used by some populations. This social desirability effect may have been exacerbated by the personal contact with the researcher during the survey process. Residents may have used the positive end of the scale because the interview was conducted face-to-face with the researcher. Supervisors knew that the researcher would see their responses. Family surveys, although done by telephone, involved personal interaction with the researcher. These surveys were confidential, but not anonymous. In spite of the precaution of strongly emphasizing that answers were confidential and would only be used for research purposes, the lack of anonymity for respondents may have resulted in a social desirability effect. This may have resulted in the restriction of range that limited the ability of the test to adequately discriminate among different levels of service quality.

The key measurement instrument for customer service quality, SERVQUAL, appears to have limitations that were not expected on the basis of published research (Parasuraman, et al., 1980; Carman, 1990). With no other suitable professionally developed measures of service quality available, in retrospect, it would have been preferable to develop an instrument specifically for this study. An instrument tailored to the service encounter between nursing aides and customers could be developed based on data collected from customers about the key dimensions of the

service they evaluate when differentiating between levels of service quality.

The potential problem of a social desirability effect needs to be carefully considered when asking customers to rate functional service quality. Whenever possible, the ratings should be anonymous, which is difficult when collecting repeated measures data. If the research does not utilize a repeated measures design, anonymous surveys are simple to use. With a repeated measures design, alternative procedures should be used. One example is asking subjects to privately pick a number to use at each data collection time. Face-to-face and telephone survey procedures should be used carefully because of the strong potential for social desirability effects when rating functional service quality.

The impact of social desirability effects on survey responses may be particularly acute in rating care provided by nursing aides in long-term care facilities. Family members may experience cognitive dissonance (Festinger, 1957) if they place a loved family member in a nursing home but perceive that care at the nursing home is not good. Believing that the nursing home gives very good care may be a way for family members to reduce the dissonance or conflict between behavior and beliefs. If this is the case, even anonymous surveys would yield responses at the positive end of the rating scale.

Changes in the implementation of the problem solving intervention could improve both the sample size issue and the strength of management commitment to the changes. Instead of

performing the problem solving intervention with nursing aides directly, it would be more time- and cost-effective to do more of the intervention with the Director and Assistant Director of Nursing and nursing supervisors. This would involve management and supervisors more directly in the process and allow a more comprehensive impact on the entire organization. Once the process has been modeled with management and supervisors, volunteers from that group would be trained to lead the nursing aides in the problem solving intervention. This would allow the entire nursing home to be involved, improving both the probability of impacting the organizational culture and maintaining the sample size. The problem-solving meetings could be implemented on a regular basis.

In summary, the research indicates that an intervention based on quality circle-type participative decision-making and behavior modeling may have a modest impact on perceived influence and turnover intention, but the predicted impact on other quality of worklife variables and customer and supervisor ratings of service quality did not materialize. I believe that this finding does not reflect on the theoretical soundness of the intervention but is instead the result of specific problems associated with implementation and measurement. High turnover among nursing aides reduced statistical power in measuring the impact of the intervention on quality of worklife variables and also served to "dilute" the intervention's potential impact on customer service

quality perceptions. In addition, restriction of range appears to have played a role in limiting the usefulness of the SERVQUAL scale in discriminating among different levels of service.

Future research on human resource interventions designed to increase functional service quality are warranted. An additional area that merits investigation is the development of criterion measures and assessment procedures to validly measure the construct of functional service quality.

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Appendix A:

INTERVENTION SUMMARY

Intervention Summary

Oct-Nov 1989   Pilot study conducted. Pretested participative
               problem solving meeting format, nursing aide
               quality of worklife survey and SERVQUAL.

Dec-Jan 1990   Pretest data collection.

Jan-Feb 1990   Meetings with nursing home administrator,
               Director of Nursing, Assistant Director of
               Nursing, and Educational Coordinator to prepare
               for intervention and plan intervention details.

               Meetings with nursing supervisors and charge
               nurses to prepare for intervention and gain
               support for change process.

Feb-Mar 1990   Participative problem-solving intervention.

April 1990   Suggestions presented to management.

               Nursing department meeting. Facility
               administrator announces suggestions to be
               implemented.

June 1990   Behavior modeling video developed.

July 1990   Behavior modeling video pretested.

May-Sept 1990 Solutions implemented.

          May   Communication skills training for charge
                nurses and nursing supervisors.
                Behavior modeling training for coaching/
                counseling employee performance problem,
                handling an employee (or customer)
                complaint, and effective delegation.
                Two two-hour meetings.

                Monthly attendance award and recognition
                ceremony implemented.

          June Racks purchased to deliver resident
                laundry on hangers.

                Meetings with Administrator, Director
                of Nursing, Assistant Director of Nursing
                regarding progress on implementation of
                suggestions.

          July Nursing aide student mentor program
                implemented.

                Meeting with Dietary department head
                regarding implementation of aide ideas.

Aug   Behavior modeling training for nursing aides.

Inservice held by dietary department director to explain changes implemented by dietary department.

Sept   Booklets developed by nursing aides mailed to family members. Two duplicate mailings, two weeks apart.

Oct-Dec 1990 Posttest 1 data collection.

Jan-Mar 1991 Posttest 2 data collection.

Activity Gantt Chart

```
                   1989      1990                                      1991
                   O   N   D   J   F   M   A   M   J   J   A   S   O   N   D   J   F   M   A

Pilot                      ****

Pretests                         ****

Facility                             **
  Preparation

Intervention:                            ******
  Problem-solving

Suggestions to                                   *
  Management

Behavior modeling                                    ****
  film developed,
  pretested

Solutions                                        ****************
  implemented

Intervention:                                                **
  Behavior modeling

Posttest 1                                                               ******

Posttest 2                                                                   *****
```

Appendix B:

SERVQUAL FAMILY INSTRUCTIONS, SUPERVISOR INSTRUCTIONS,

RESIDENT INSTRUCTIONS, AND SURVEY

March 14, 1991

Dear

    This questionnaire is part of a survey of satisfaction with nursing homes being conducted by researchers affiliated with Old Dominion University. You have been contacted because you are a regular visitor to a Camelot Hall Nursing Home.

    Your voluntary participation in this survey can contribute to improving quality of life for nursing home residents. The enclosed questionnaire asks your opinions regarding the care provided by <u>nursing</u> <u>assistants</u> (also called <u>nursing</u> <u>aides</u> <u>or</u> <u>nurses'</u> <u>aides</u>). Nursing assistants/aides provide the majority of personal care to nursing home residents.

    This survey is different from others you may have received in the past. The results of this survey will be used for <u>research</u> <u>purposes</u> <u>only</u>. This means that Camelot Hall will not have direct access to the data, but will receive summarized findings. These results will not be linked to any nursing home floor, employee, visitor or resident, and will not influence the job status of any nursing home employee. The results will be analyzed and stored at Old Dominion University as part of a research study.

    The reason for this strong protection of confidentiality is that we want you to feel completely comfortable sharing your opinions. Your privacy is secure, and you may freely choose to participate or not.

    <u>I</u> <u>will</u> <u>contact</u> <u>you</u> <u>by</u> <u>telephone</u> <u>during</u> <u>the</u> <u>next</u> <u>2</u> <u>weeks</u> <u>to</u> <u>collect</u> <u>your</u> <u>responses</u> <u>to</u> <u>the</u> <u>survey</u> <u>items</u> <u>in</u> <u>a</u> <u>telephone</u> <u>interview</u>. The survey form has been sent to you as a convenience. Filling it out in advance will save time during the telephone interview.

    I would appreciate it if you could take a few minutes to fill out this survey as soon as possible. It is preferred that only you fill out the survey, without assistance from other family members.

    If you have any questions, please feel free to contact me at 489-7268. Or, you may call Administrator Jay Underwood (Chesapeake: 547-9111) or Jeffrey Custer (Virginia Beach: 481-3500). I will be contacting you by telephone within the coming 2 weeks. Your time is appreciated.

                              Sincerely,

                              Diane Catanzaro
                              ODU – Psychology Dept.

Family Instructions

The first part of the survey asks you to describe your
<u>general</u> feelings about what you expect from a nursing
assistant (also called <u>nurses' aide</u>). We are not asking you
to rate actual performance of nursing assistants/aides --just
your general expectations about how they <u>should</u> perform.

 For each question in the survey:

-Read the statement carefully.

-Decide how strongly you AGREE or DISAGREE with the
 statement.

-Choose the number (1 thru 7) that best indicates how
 strongly you disagree or agree with the statement.

If you <u>strongly</u> <u>disagree</u> with the statement, circle # 1.

If you <u>mostly</u> <u>disagree</u> with the statement, circle # 2.

If you <u>slightly</u> <u>disagree</u> with the statement, circle # 3.

If your feelings are not strong, circle #4.

If you <u>slightly</u> <u>agree</u> with the statement, circle # 5.

If you <u>mostly</u> <u>agree</u> with the statement, circle # 6.

If you <u>strongly</u> <u>agree</u> with the statement, circle # 7.

There are no "right" or "wrong" answers. Please just tell us
how you really feel.

Supervisor Instructions

The first part of the survey asks you to describe your <u>general</u> feelings about what you expect from the nursing assistants/aides you supervise. We are not asking you to rate actual performance of nursing assistants/aides --just your general expectations about how they <u>should</u> perform.

 For each question in the survey:

-Read the statement carefully.

-Decide how strongly you AGREE or DISAGREE with the statement.

-Choose the number (1 thru 7) that best indicates how strongly you disagree or agree with the statement.

If you <u>strongly</u> <u>disagree</u> with the statement, circle # 1.

If you <u>mostly</u> <u>disagree</u> with the statement, circle # 2.

If you <u>slightly</u> <u>disagree</u> with the statement, circle # 3.

If your feelings are not strong, circle #4.

If you <u>slightly</u> <u>agree</u> with the statement, circle # 5.

If you <u>mostly</u> <u>agree</u> with the statement, circle # 6.

If you <u>strongly</u> <u>agree</u> with the statement, circle # 7.

There are no "right" or "wrong" answers. Please just tell us how you really feel. Your responses on this survey are confidential and will not be available to management. The survey will not affect the nursing assistants in any way, but will only be used as part of a research study.

Resident Instructions

<u>Instructions</u>: My name is _____. I am interviewing nursing home residents to learn their opinions on various aspects of nursing home care. This is part of a research study conducted by researchers from Old Dominion University.

Your participation in this survey is voluntary. You do not have to answer the survey questions if you do not wish to participate. With your permission, I would like to ask you several questions about nursing assistants and nursing home care. Camelot Hall has given me permission to invite residents to be interviewed. However, your answers will <u>not</u> be shared with Camelot Hall management, nurses, or anyone else. They will only be used as part of a research study. Your answers will be <u>completely</u> <u>confidential</u>. We want you to feel comfortable telling us how you really feel.

Do you have any questions about what I've just said? Would you mind if I asked you several questions as part of this research study?

The first part of the questionnaire asks you to describe your <u>general</u> feelings about what you expect from a nursing assistant (also called nurses' aide). Your ratings should not reflect the performance of specific nursing assistants, but rather your <u>general</u> feelings about what a nursing assistant <u>should</u> do.

I will ask you to choose one of the numbers next to each statement. If you <u>strongly</u> <u>agree</u> that nursing assistants should perform as described, choose # 7. If you <u>strongly</u> <u>disagree</u> that nursing assistants should perform as described, choose # 1. If your feelings are not strong, circle #4. Choose the number which best describes your opinion.

The first part of the survey asks about the kind of care you think nursing assistants/aides should give.

	strongly disagree	mostly disagree	slightly disagree	slightly agree	mostly agree	strongly agree

1. Nursing assistants should be dependable. 1 2 3 4 5 6 7

2. Nursing assistants should be knowledgeable. 1 2 3 4 5 6 7

3. It is realistic to expect nursing assistants to know what residents' needs are. 1 2 3 4 5 6 7

4. Residents should be able to feel safe in their interactions with nursing assistants. 1 2 3 4 5 6 7

5. It is realistic to expect a prompt response from nursing assistants. 1 2 3 4 5 6 7

6. Residents should be able to trust nursing assistants. 1 2 3 4 5 6 7

7. Residents should expect to feel secure in dealings with nursing assistants. 1 2 3 4 5 6 7

8. It is realistic to expect nursing assistants to have the residents' best interests at heart. 1 2 3 4 5 6 7

9. When residents have problems, nursing assistants should be sympathetic and reassuring. 1 2 3 4 5 6 7

10. Nursing assistants should be expected to give individual attention to each resident. 1 2 3 4 5 6 7

11. One should expect nursing assistants to always be willing to help residents. 1 2 3 4 5 6 7

	strongly disagree	mostly disagree	slightly disagree	slightly agree	mostly agree	strongly agree	
12. Nursing assistants should keep accurate records.	1	2	3	4	5	6	7
13. Nursing assistants should provide assistance at the time they promise to do so.	1	2	3	4	5	6	7
14. Nursing assistants should be expected to be available at all times.	1	2	3	4	5	6	7
15. Nursing assistants should be polite.	1	2	3	4	5	6	7
16. Dealings with nursing assistants should be very pleasant.	1	2	3	4	5	6	7
17. Nursing assistants should be expected to tell residents exactly when services will be performed.	1	2	3	4	5	6	7
18. When the nursing assistant promises to do something by a certain time, she/he should do so.	1	2	3	4	5	6	7
19. It is okay if nursing assistants are too busy to respond to requests promptly.	1	2	3	4	5	6	7
20. Nursing assistants should get adequate support from the nursing home's management to do their jobs well.	1	2	3	4	5	6	7
21. It is okay if residents have to wait a long time to get the nursing assistant to respond.	1	2	3	4	5	6	7
22. Family members should feel secure in dealings with nursing assistants.	1	2	3	4	5	6	7

Please describe your views of the service provided by nursing assistants during the past 2 months <u>on the Camelot Hall floor you visit most often</u>. Use the same scale of 1 to 7. There are no right or wrong answers; please give us your confidential opinions.

	strongly disagree	mostly disagree	slightly disagree	slightly agree	mostly agree	strongly agree
23. The nursing assistants are dependable.	1	2	3	4	5	6	7
24. Nursing assistants here are knowledgeable.	1	2	3	4	5	6	7
25. Nursing assistants know what residents' needs are.	1	2	3	4	5	6	7
26. Residents feel safe in their interactions with nursing assistants.	1	2	3	4	5	6	7
27. One can expect a prompt response from nursing assistants.	1	2	3	4	5	6	7
28. Residents trust nursing assistants here.	1	2	3	4	5	6	7
29. Residents feel secure in dealings with nursing assistants.	1	2	3	4	5	6	7
30. Nursing assistants have residents' best interests at heart.	1	2	3	4	5	6	7
31. When residents have problems, the nursing assistants are sympathetic and reassuring.	1	2	3	4	5	6	7
32. The nursing assistants give residents individual attention.	1	2	3	4	5	6	7
33. Nursing assistants are always willing to help residents.	1	2	3	4	5	6	7

	strongly disagree	mostly disagree	slightly disagree	slightly agree	mostly agree	strongly agree	

34. The nursing assistants keep records accurately.　　1　2　3　4　5　6　7

35. The nursing assistant provides assistance at the time she/he promises to do so.　　1　2　3　4　5　6　7

36. The nursing assistants are available at all times.　　1　2　3　4　5　6　7

37. The nursing assistants are polite.　　1　2　3　4　5　6　7

38. Dealings with the nursing assistants are very pleasant.　　1　2　3　4　5　6　7

39. The nursing assistants tell residents exactly when services will be performed.　　1　2　3　4　5　6　7

40. When the nursing assistant promises to do something by a certain time, she does so.　　1　2　3　4　5　6　7

41. Nursing assistants are too busy to respond to requests promptly.　　1　2　3　4　5　6　7

42. Nursing assistants get adequate support from management to do their jobs well.　　1　2　3　4　5　6　7

43. You have to wait a long time to get a nursing assistant to respond.　　1　2　3　4　5　6　7

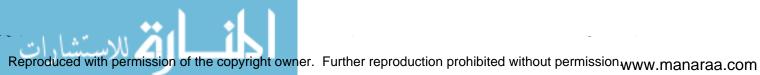44. Family members feel secure in dealings with nursing assistants.　　1　2　3　4　5　6　7

Please keep this questionnaire in a handy location.
An interviewer will call to obtain your responses during the coming week
Thank you for your participation.

Appendix C:

NURSING AIDE QUESTIONNAIRE

This questionnaire is part of a research study of nursing homes. The purpose of the study is to learn how nursing assistants at various nursing homes feel about different aspects of their job.

The results of this questionnaire will be used for RESEARCH PURPOSES ONLY. The questionnaire is part of a study by researchers affiliated with Old Dominion University. This questionnaire is different from the Employee Opinion Survey you may be familiar with. The difference is that this questionnaire is NOT conducted by your nursing home's management but by outside research group. Your individual responses, and those of your work group, are COMPLETELY CONFIDENTIAL. Questionnaires will not be stored on company property, and the data will not be stored in company computers. The reason for this strong protection of confidentiality is that we want you to feel comfortable telling us your opinion.

Please read each question carefully. Mark the one response to each question that best describes how you really feel. Please answer each question.

PLEASE ANSWER THE FOLLOWING QUESTIONS ACCORDING TO WHAT YOU WOULD <u>LIKE</u> ON YOUR JOB

1. How much influence would you <u>like to have</u> over the quality of work you do?

____ I would like to have a <u>very great deal</u> of influence

____ I would like to have a <u>great deal</u> of influence

____ I would like to have a <u>moderate amount</u> of influence

____ I would like to have a <u>small amount</u> of influence

____ I would not like to have any influence

2. How much influence would you <u>like to have</u> on solving problems with the way your work is done?

____ I would like to have a <u>very great deal</u> of influence

____ I would like to have a <u>great deal</u> of influence

____ I would like to have a <u>moderate amount</u> of influence

____ I would like to have a <u>small amount</u> of influence

____ I would not like to have any influence

3. How much influence would you <u>like to have</u> in finding solutions to work-related problems?

____ I would like to have a <u>very great deal</u> of influence

____ I would like to have a <u>great deal</u> of influence

____ I would like to have a <u>moderate amount</u> of influence

____ I would like to have a <u>small amount</u> of influence

____ I would not like to have any influence

4. How much opportunity for personal growth and development would you <u>like to have</u> in your job?

     1   2   3   4   5   6   7
  minimum   maximum

5. How much opportunity for independent thought and action would you <u>like to have</u> on your job?

     1   2   3   4   5   6   7
  minimum   maximum

6. How great a feeling of worthwhile accomplishment would you
    <u>like</u> on your job?

      1 2 3 4 5 6 7
    minimum   maximum

7. How much opportunity for participation in deciding on methods and
    procedures would you <u>like</u> <u>to</u> <u>have</u> on your job?

      1 2 3 4 5 6 7
    minimum   maximum

8. How much opportunity for participation in the setting of goals
    would you <u>like</u> <u>to</u> <u>have</u> on your job?

      1 2 3 4 5 6 7
    minimum   maximum

9. How great a feeling of self-fulfillment would you <u>like</u> <u>to</u> <u>have</u> on
    your job?

      1 2 3 4 5 6 7
    minimum   maximum

PLEASE DESCRIBE YOUR JOB AS NURSING ASSISTANT AT CAMELOT HALL

10. How much opportunity for personal growth and development do you have on your job?

       1   2   3   4   5   6   7
   minimum   maximum

11. How much opportunity for independent thought and action do you have on your job?

       1   2   3   4   5   6   7
   minimum   maximum

12. How great a feeling of worthwhile accomplishment do you have on your job?

       1   2   3   4   5   6   7
   minimum   maximum

13. How much opportunity for participation in deciding on methods and procedures do you have on your job?

       1   2   3   4   5   6   7
   minimum   maximum

14. How much of an opportunity for participation in the setting of goals do you have on your job?

       1   2   3   4   5   6   7
   minimum   maximum

15. How much of a feeling of self-fulfillment do you get from your job?

       1   2   3   4   5   6   7
   minimum   maximum

16. How much influence do you have in finding solutions to work related problems?

___ I have a <u>very</u> <u>great</u> <u>deal</u> of influence

___ I have a <u>great</u> <u>deal</u> of influence

___ I have a <u>moderate</u> <u>amount</u> of influence

___ I have a <u>small</u> <u>amount</u> of influence

___ I have <u>no</u> influence

17. If you have a suggestion for improving customer satisfaction, how easy is it for you to get your ideas across to management?

____ It is very easy to get my ideas across

____ Fairly easy

____ Not too easy

____ Somewhat difficult

____ It is very difficult to get my ideas across

18. How much influence do you have on customer satisfaction with your unit?

____ A <u>very</u> <u>great</u> <u>deal</u> of influence

____ A <u>great</u> <u>deal</u> of influence

____ <u>Quite</u> <u>a</u> <u>bit</u> of influence

____ <u>Some</u> influence

____ <u>Little</u> <u>or</u> <u>no</u> influence

19. Do managers ask your opinion when a problem comes up that involves customer satisfaction?

____ They always ask my opinion

____ Often ask

____ Sometimes ask

____ Seldom ask

____ They never ask my opinion

20. How much influence do you have over the quality of work you do?

____ I have a <u>very</u> <u>great</u> <u>deal</u> of influence

____ I have a <u>great</u> <u>deal</u> of influence

____ I have a <u>moderate</u> <u>amount</u> of influence

____ I have a <u>small</u> <u>amount</u> of influence

____ I have <u>no</u> influence

21. How much influence do you have in solving problems with the way your work is done?

____ I have a <u>very</u> <u>great</u> <u>deal</u> of influence

____ I have a <u>great</u> <u>deal</u> of influence

____ I have a <u>moderate</u> <u>amount</u> of influence

____ I have a <u>small</u> <u>amount</u> of influence

____ I have <u>no</u> influence

22. Do you feel you can influence the decisions made by Camelot Hall management regarding service to customers?

____ I can influence them to a very great extent

____ To a considerable extent

____ To some extent

____ To a very little extent

____ I cannot influence them at all

23. To what extent are you able to decide how you do your job?

____ To a very great extent

____ To a considerable extent

____ To some extent

____ To a very little extent

____ Not at all

24. In general, how much say or influence do you have on what goes on in your work group?

____ I have a <u>very</u> <u>great</u> <u>deal</u> of influence

____ I have a <u>great</u> <u>deal</u> of influence

____ I have a <u>moderate</u> <u>amount</u> of influence

____ I have a <u>small</u> <u>amount</u> of influence

____ I have <u>no</u> influence

25. In general, how much influence do you have on decisions which affect your job?

___ I have a <u>very</u> <u>great</u> <u>deal</u> of influence

___ I have a <u>great</u> <u>deal</u> of influence

___ I have a <u>moderate</u> <u>amount</u> of influence

___ I have a <u>small</u> <u>amount</u> of influence

___ I have <u>no</u> influence

26. In general, how much say or influence do you have on how you perform your job?

___ I have a <u>very</u> <u>great</u> <u>amount</u> of influence

___ I have a <u>great</u> <u>amount</u> of influence

___ I have a <u>moderate</u> <u>amount</u> of influence

___ I have a <u>small</u> <u>amount</u> of influence

___ I have <u>no</u> influence

27. My superiors are receptive and listen to my ideas and suggestions.

___ They always listen to my ideas

___ They often listen to my ideas

___ They sometimes listen to my ideas

___ They seldom listen to my ideas

___ They never listen to my ideas

For the following questions, ask yourself "How <u>satisfied</u> am I with this aspect of my job?"

<u>Very</u> <u>satisfied</u> means I am very satisfied with this aspect of my job.

<u>Satisfied</u> means I am satisfied with this aspect of my job.

<u>Can't</u> <u>decide</u> means I can't decide whether I am satisfied with this aspect of my job.

<u>Dissatisfied</u> means I am dissatisfied with this aspect of my job.

<u>Very</u> <u>dissatisfied</u> means I am very dissatisfied with this aspect of my job.

On my present job, this is how I feel about...

28. The chance to be of service to people.

```
___ very dissatisfied
___ dissatisfied
___ can't decide
___ satisfied
___ very satisfied
```

29. Company policies regarding resident care and the way they are administered.

```
___ very dissatisfied
___ dissatisfied
___ can't decide
___ satisfied
___ very satisfied
```

30. The chance to help people.

```
___ very dissatisfied
___ dissatisfied
___ can't decide
___ satisfied
___ very satisfied
```

31. The way the company treats its employees.

```
___ very dissatisfied
___ dissatisfied
___ can't decide
___ satisfied
___ very satisfied
```

32. The way employees are informed about company policies regarding resident care.

   ___ very dissatisfied
   ___ dissatisfied
   ___ can't decide
   ___ satisfied
   ___ very satisfied

33. The chance to be of some small service to other people.

   ___ very dissatisfied
   ___ dissatisfied
   ___ can't decide
   ___ satisfied
   ___ very satisfied

34. The way company policies on resident care are put into practice.

   ___ very dissatisfied
   ___ dissatisfied
   ___ can't decide
   ___ satisfied
   ___ very satisfied

35. The chance to do things for other people.

   ___ very dissatisfied
   ___ dissatisfied
   ___ can't decide
   ___ satisfied
   ___ very satisfied

36. The policies and practices toward resident care in this nursing home.

   ___ very dissatisfied
   ___ dissatisfied
   ___ can't decide
   ___ satisfied
   ___ very satisfied

37. The chance to be of service to others.

   ___ very dissatisfied
   ___ dissatisfied
   ___ can't decide
   ___ satisfied
   ___ very satisfied

PLEASE CHECK THE ONE RESPONSE THAT BEST DESCRIBES HOW YOU FEEL

38.   I am proud to tell others that I am part of Camelot Hall.

    ____   strongly disagree
    ____   mostly disagree
    ____   slightly disagree
    ____   neither agree nor disagree
    ____   slightly agree
    ____   mostly agree
    ____   strongly agree

39.   I talk up Camelot Hall to my friends as a great organization
     to work for.

    ____   strongly disagree
    ____   mostly disagree
    ____   slightly disagree
    ____   neither agree nor disagree
    ____   slightly agree
    ____   mostly agree
    ____   strongly agree

40.   I often think about quitting.

    ____   strongly disagree
    ____   mostly disagree
    ____   slightly disagree
    ____   neither agree nor disagree
    ____   slightly agree
    ____   mostly agree
    ____   strongly agree

41.   My job really inspires the very best in me in the way of job
     performance.

    ____   strongly disagree
    ____   mostly disagree
    ____   slightly disagree
    ____   neither agree nor disagree
    ____   slightly agree
    ____   mostly agree
    ____   strongly agree

42. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.

   ___ strongly disagree
   ___ mostly disagree
   ___ slightly disagree
   ___ neither agree nor disagree
   ___ slightly agree
   ___ mostly agree
   ___ strongly agree

43. I am willing to put in a great deal of effort beyond that normally expected in order to help Camelot Hall be successful.

   ___ strongly disagree
   ___ mostly disagree
   ___ slightly disagree
   ___ neither agree nor disagree
   ___ slightly agree
   ___ mostly agree
   ___ strongly agree

44. It would take a great change in my present circumstances to cause me to leave Camelot Hall.

   ___ strongly disagree
   ___ mostly disagree
   ___ slightly disagree
   ___ neither agree nor disagree
   ___ slightly agree
   ___ mostly agree
   ___ strongly agree

45. I would accept almost any type of job assignment in order to keep working where I am now.

   ___ strongly disagree
   ___ mostly disagree
   ___ slightly disagree
   ___ neither agree nor disagree
   ___ slightly agree
   ___ mostly agree
   ___ strongly agree

46. I really care about the fate of Camelot Hall.

   ___ strongly disagree
   ___ mostly disagree
   ___ slightly disagree
   ___ neither agree nor disagree
   ___ slightly agree
   ___ mostly agree
   ___ strongly agree

47. I find that my values and this nursing home's values are very similar.

```
____  strongly disagree
____  mostly disagree
____  slightly disagree
____  neither agree nor disagree
____  slightly agree
____  mostly agree
____  strongly agree
```

48. I will probably look for a new job in the next year.

```
____  strongly disagree
____  mostly disagree
____  slightly disagree
____  neither agree nor disagree
____  slightly agree
____  mostly agree
____  strongly agree
```

49. I am extremely glad that I chose this position over others I was considering at the time I joined.

```
____  strongly disagree
____  mostly disagree
____  slightly disagree
____  neither agree nor disagree
____  slightly agree
____  mostly agree
____  strongly agree
```

50. For me this is the best of all possible organizations for which to work.

```
____  strongly disagree
____  mostly disagree
____  slightly disagree
____  neither agree nor disagree
____  slightly agree
____  mostly agree
____  strongly agree
```

USE ANY NUMBER FROM 1 TO 7 THAT BEST DESCRIBES HOW YOU FEEL.

51. How likely is it that you will actively look for a new job in the next year?

1	2	3	4	5	6	7
not at all likely		somewhat likely		quite likely		extremely likely

Use <u>ANY</u> <u>NUMBER</u> from 1 to 7 that BEST DESCRIBES HOW YOU FEEL

52. I receive conflicting requests from management and residents.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

53. I work on unnecessary things.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

54. There are clear, planned goals and objectives for my job.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

55. Management and residents expect different things from me.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

56. I receive conflicting requests from management and the resident's family.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

57. I know that I have divided my time properly.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

58. I have to do things that should be done differently.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

59. I do things that may be accepted by management and not accepted by the resident.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

60. I know exactly what is expected of me.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

61. I know what my responsibilities are.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

62. I have to ignore a rule or policy in order to carry out an assignment.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

63. I do things that may be accepted by management and not accepted by the resident's family.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

64. Explanations are clear of what has to be done.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

65. I receive an assignment without enough time or materials to do it.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

66. I feel certain about how much authority I have.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

67. Management and the resident's family expect different things from me.

1	2	3	4	5	6	7
very false	mostly false	slightly false	neither true or false	slightly true	mostly true	very true

<u>Please read and answer the questions below.</u>

** Last Fall, many nursing assistants on Units 2 and 4 received

training on effective ways to respond to family member and

resident complaints. This training used a video and role play.

Did you receive this training?   ___yes   ___no

<u>If you answered the above question YES</u> please answer the
question below.

<u>If you answered the above question no</u> please turn to the
next page.

Think about the steps in handling a family or resident complaint

taught in the training meeting (1. Listen openly; 2. Tell the

person you understand the complaint...).

Can you estimate the number of times you have used these steps to

handle a family or resident complaint since participation in the

training?

___ I have never used the steps.

___ I have used the steps <u>once</u>.
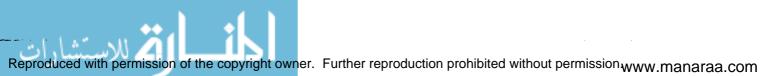
___ I have used the steps <u>twice</u>.

___ I have used the steps <u>three times</u>.

___ I have used the steps <u>four times</u>.

___ I have used the steps <u>five times</u>.

___ I have used the steps <u>six or more times</u>.

Confidential

Your answers to the questions and all other information you give will be held in <u>strictest</u> <u>confidence</u> by the researcher.

1. Please write your special number in this blank. _____

2. What is the highest level of education you have obtained? (Do not include vocational nurses' aide training).
    (Check highest level obtained).

    ___some elementary school (grades 1-7)

    ___completed elementary school (8th grade)

    ___some high school (grades 9-11)

    ___graduated from high school or G.E.D

    ___some college

    ___graduated from college (B.A., B.S. or other bachelor's degree)

3. How long have you worked as a nursing assistant for Camelot Hall?

    _____years _____months

4. How long have you worked as a nursing assistant or nurses' aide, including other nursing homes or hospitals?

    _____years _____months

5. Which unit do you usually work on?   Unit _____

6. How many hours do you usually work per week?   _____ hours

7. Date of birth _____-___-_____
                  month day year

8. What is your marital status? (Check one)

___married   ___widowed   ___separated   ___divorced   ___never married

9. How many children do you have? (Circle one)

                0   1   2   3   4   5   6   7   8 or more_

10. What are the ages of your oldest and youngest child?

    My oldest child is _____ years old.
    My youngest child is _____ years old.

Thank you for your participation in filling out this questionnaire.

Appendix D:

BEHAVIOR MODELING TRAINING SCRIPT AND KEY BEHAVIORS

Behavior Modeling Film Script
and Key Behaviors For Family Complaint

Family member: I'm very upset that my mother is still in bed
in her pajamas and it's 11:00.

(Freeze frame, caption, and narration:

"Listen openly to the complaint.
 Avoid reacting emotionally or defensively.
 Make sure you understand the complaint.
 Ask the person to explain anything that is unclear.

 Tell the person that you understand the complaint.")

Nursing aide: Ma'am, I understand your concern. You and
                 I both want your mother to receive good care.

(Freeze frame, caption, and narration:

"State your ideas about the complaint. You can:

-provide information
-compromise
-apologize")

Nursing aide: Morning care for my patients usually takes
                 from 7:30 until 11 or 11:30. Some days it
                 takes even longer. So it's not unusual for
                 morning care to take until 11-11:30.

                 I usually rotate my patients to give everyone
                 a chance to get up early in the morning.
                 When your mother receives morning care later
                 in the morning it does not mean she's being
                 neglected. I checked on her earlier, changed
                 her pad, and helped her with breakfast. She
                 seemed to be doing all right.

(Freeze frame, caption, and narration:

"<u>Suggest</u> what each of you could do about the complaint

       or

Ask the person for suggestions to solve the problem.")

Nursing aide: If you want I can bathe and dress your mother next. Or, if you prefer, I can wait until after your visit if you prefer.

Family member: Well, if you don't mind waiting, it would probably be best. That way I can get my visit in.

Nursing aide: No problem.

(Freeze frame, caption, and narration:

"Agree on any specific steps to be taken in response to the complaint.")

Nursing aide: On certain days if you want to have your mother up and ready at a particular time, give the nurses' station a call ahead of time and we'll be glad to have your mother ready at the time you request.

(Freeze frame, caption, and narration:

"Tell the person you're <u>willing</u> <u>to</u> <u>work</u> <u>with</u> <u>them</u> to solve any problems that arise.")

Nursing aide: I am glad to be able to work with my patient's family any time you have a question or a concern.

Family member: Thank you.

Behavior Modeling Film Script
and Key Behaviors For Resident Complaint

Resident: I don't like it here.

Nursing Aide: What's the matter, Mrs. Daniels?

    (Freeze frame, caption, and narration:

    "Listen openly to the complaint.
     Avoid reacting emotionally or defensively.
     Make sure you understand the complaint.
     Ask the person to explain anything that is unclear.

     Tell the person you understand the complaint.")

Resident: No one comes when I push the call light on.
                       Yesterday I waited a half an hour before
                       someone came to help me.

Nursing Aide: I can understand that you are upset at
                       having to wait a half an hour...did anyone
                       check on you?

Resident: The nurse looked in and said she would send
                       an aide and it took a half an hour before
                       anybody came. When you need help, someone
                       should come right away.

(Freeze frame, caption, and narration:

    "State your ideas about the complaint. You can:

    -provide information
    -compromise
    -apologize")

Aide: I agree and I'm sorry you had to wait.
                       Sometimes when a resident uses the call
                       light, the aide is busy helping someone
                       else. One of the nurses checks to make sure
                       you are okay, then she tells the aide.

(Freeze frame, caption, and narration:

"<u>Suggest</u> what each of you could do about the complaint

       or

Ask the person for suggestions to solve the problem.")

Aide:	Mrs. Daniels, what do you think happens if the aide is changing another resident or giving a bath when you push the call light?
Resident:	Well, the aide can't always leave the person she's taking care of. She...she should finish what she's doing and then come as soon as she can.
Aide:	You're right. But sometimes that means the person ringing the call light has to wait, doesn't it?
Resident:	I guess sometimes you do have to wait.
Aide:	It's hard to answer call lights quickly when we're helping another resident. But we do come as soon as we can. Will you accept my apology for having to wait?
Resident:	Yes, I will.

(Freeze frame, caption, and narration:

"Agree on any specific steps to be taken in response to the complaint.")

Aide:	Good. I want you to know that I will do my best to answer all call lights just as soon as is possible.

(Freeze frame, caption, and narration:

"Tell the person you're <u>willing</u> <u>to</u> <u>work</u> <u>with</u> <u>them</u> to solve any problems that arise.")

Aide: Thanks for telling me what was on your mind.
                 Whenever there is a problem, you know that
                 I'm willing to listen and will try to help.

Resident: Well...thank you for listening.

Aide: Well, thank you for understanding. I have
                 to go take care of my next patient now, but
                 I'll check on you later.

APPENDIX E:

SUPERVISOR AND CHARGE NURSE PREVIEW MEETING

<u>Supervisor</u> <u>and</u> <u>Charge</u> <u>Nurse</u> <u>Preview</u>

Three goals of meeting today:

- describe the Service Support Team concept - ask for nurses' support in implementing this program
- ask for the nursing staff's ideas about how to help this program succeed in making Camelot Hall a better place to live and work

Picture a nursing home very much like this one, but with one important difference:

Imagine that everyone, both management and employees, is committed to improving quality of care and quality of life for residents, sharing a feeling of responsibility for quality of service and common goals of resident and family satisfaction.

It sounds like this would be a good nursing home in which to live. And also a good one in which to work.

The nursing aides who care for residents are an important influence on resident quality of life and both resident and family satisfaction with nursing home care. Their attitudes, caring, kindness, and their motivation make a very big difference in the lives of residents.

How people FEEL about their jobs and the work environment has a big influence on attitudes toward caring for the resident. One goal of this program is to have nursing aides feel good about their jobs. This is accomplished through:

-RECOGNITION of the aides' important role and their ability to contribute constructively
-PARTICIPATION in problem solving to improve service quality
-IMPLEMENTING nursing aide suggestions for constructive change

We both know that nurses and nurses' aides have a very difficult job. Unfortunately, money for more staff and higher pay is not available. The question is, can we make better use of the resources that are available?

The Service Support Team Concept involves training nursing aides in problem-solving techniques. We would like to train nursing aides to participate constructively in strengthening weaknesses and building on strengths to improve quality of service to residents and their families.

This does not involve telling nursing aides how to improve care or resident and family satisfaction. It involves asking the aides for ideas about how to better meet the needs of residents and families, and training aides to use group problem-solving techniques, such as brainstorming, to arrive at these ideas.

Many of the ideas incorporated in this program have been used used successfully in many organizations, including hospitals and nursing homes.

Most people at this nursing home work very hard, especially the nursing staff. Given the amount of work involved and the limited resources available, the question is "How can we work smarter?" "How can we work better as a team?" " How can we work more efficiently?" "How can we better satisfy residents and their families?"

One approach is through employee participation:

-recognize the value of the nursing aides' knowledge of residents, and, in most cases, their basic desire to give good care

-give them more of an opportunity to influence their work environment toward the goal of resident and family satisfaction

The objectives of the meetings are:

-To get nursing aides to WORK TOGETHER to develop and implement suggestions for improving resident and family satisfaction

-To help nursing aides to develop more initiative in providing service to residents

-To provide experiences through which nursing aides can develop and strengthen their ability to diagnose service quality weaknesses and improve skills at problem solving

-To give nursing aides an opportunity to have some positive influence on their own work environment

-To create a work atmosphere in which resident and family satisfaction is a primary goal

This would be done through a series of seven meetings which I would facilitate. In the meetings, nursing aides will receive training to learn how to diagnose service quality problems and use problem-solving strategies to develop solutions to these problems. I will meet regularly with each of you to keep you up-to-date on progress at the meetings.

The training program involves:

1. diagnosing strengths and weaknesses in resident/family satisfaction - team members learn to identify and analyze factors that detract from service quality, using techniques of brainstorming and cause-effect analysis

2. generating possible solutions through brainstorming

3. systematically evaluating the potential solutions to arrive at the best ideas

4. gaining approval of these ideas from charge nurses and management

5. devising an action plan for implementation of the ideas

The benefits of the Service Support Team program include:

- fostering teamwork among the aides who work together, encouraging them to support each other and work toward a common goal

- greater attention to service quality and resident and family satisfaction

- nursing aides are positively motivated by a sense of being able to participate and constructively influence the work environment

- working smarter, rather than harder, may reduce stress, increase efficiency, and improve resident and family satisfaction

I must tell you that the success of this program is not guaranteed. A big influence on the success of this program is the support of the charge nurses. This is why you are the first employee group to learn about this program.

We wanted to present this to you first, and ask for your support. I would also like to get your input and feedback on how we can help this program to be successful.

APPENDIX F:

NURSING AIDE PREVIEW MEETING

SERVICE SUPPORT TEAM

TRAINING PREVIEW

My name is _____. I am affiliated with Old Dominion University, and have been studying what it's like to live and work in nursing homes for the past year. Two goals for this research are:

- to help make nursing homes a better place for residents to live
- to help make nursing homes a better place for nursing aides to work

Today I would like to tell you about a concept called the "Service Support Team". The Service Support Team concept involves trying to create an atmosphere that SUPPORTS nursing assistants in their efforts to satisfy the needs of both residents and residents' families.

The idea behind the Service Support Team is this:

- nursing aides do a difficult job
- nursing aides try to give the best care that they can, even though there are many factors that may limit your ability to give the kind of care you'd like to give
- nursing aides are mostly caring people who like to see residents and their families happy with quality of care; they don't like to see residents or their families unhappy with care
- nursing aides are experts on the subject of caring for residents

(Question): Besides pay, what is the one thing you like best about your job?

Many of you said caring for residents. Caring for nursing home residents can be very rewarding. However, it is frustrating when you would like to give good care but things prevent this:

(Question): What are some of the things that prevent this? (Too much work, too few aides, too little pay). Many things have been mentioned that are beyond your control. The truth is, these things are also beyond the control of the nursing home's management as well.

So the question is, given these constraints, is there anything that can be done to help increase resident and family satisfaction? Given the difficulty of the situation, is there any way to better make use of the resources we DO have?

The Service Support Team Concept

The service support team concept involves giving nursing aides a better opportunity to develop and suggest ideas to management about ways to better satisfy residents and their families.

The Service Support Team concept involves getting nursing aides together to think about ways to improve resident and family satisfaction with nursing home care. Using creative problem solving techniques, such as brainstorming, I believe that nursing aides can develop good ideas that can make nursing homes a better place to work and a better place to live.

As you are well aware, the nursing home receives a set fee per resident per day. This limits the number of nursing aides who can be hired. Everyone knows that it would be ideal to be able to hire many more nursing aides. The question is, even though we can't afford more staff, are there areas where we could make changes that would result in more satisfied residents and family members? The service support team meeting involves using a structured problem-solving procedure to give nursing aides an opportunity to develop ideas.

The management team here at Camelot Hall and at the home office support this idea. They are willing to seriously consider nursing aide recommendations that are developed in these meetings. Although we are not authorized to spend money, many good ideas for giving better service to residents and their families may actually not cost anything.

The benefits, however can be outstanding. When residents and their families are happy, nursing aides find their jobs are that much easier. This meeting involves giving nursing aides more input, more ability to make a difference.

If the Service Support Team meeting is successful, this concept may be introduced at other nursing homes, and may be repeated on a regular basis.

Key Principles of the Service Support Team Meetings

1. All members of the group have an opportunity to participate.

2. Each person is free to express his or her own ideas.

3. Each person will listen respectfully to what others are saying.

4. Each person should avoid dominating or forcing their opinion on others.

5. Be open-minded and objective.

6. Ask for clarification of unclear details.

7. Provide support and acknowledgement to others and their ideas.

8. Build on other people's ideas by adding to them.

9. Focus on the issues, not personalities.

Contact person:

Diane Catanzaro   (804) 489-7268

Techniques: Brainstorming and Force-field analysis

Meeting format:

I.   Identifying areas of resident and family satisfaction/
      dissatisfaction.
II.   Determine the causes that contribute to these areas of
      resident and family dissatisfaction.
III. Generate possible solutions that could alleviate causes
      of dissatisfaction.
IV.   Evaluate these possible solutions.
V.   Select solutions.
VI.   Plan implementation of solutions.
VII. Plan implementation of solutions.

I.   FUNCTIONAL SERVICE QUALITY AND THE NURSING STAFF

The niceness, kindness, and caring that nurses and nursing aides show to residents are an important influence on whether the resident feels they are receiving quality care. This niceness, kindness, and caring is the single biggest influence on the quality of life the resident experiences.

II.   FUNCTIONAL SERVICE QUALITY AND POLICIES, PRACTICES, AND PROCEDURES

A second major influence on functional service quality, resident satisfaction and quality of life are the policies, procedures, and practices that determine how care is provided.

A.   Policies, procedures and practices which residents like can improve functional service quality.

B.   Policies, procedures and practices which residents dislike can hurt functional service quality. Sometimes these policies, procedures and practices are necessary, even though they are unpopular, because they are required by the government or necessary to protect or care for residents. An example is that a resident may not like to be bathed, but both State laws and Camelot Hall policy require this because it is for the good of the resident. In these instances, the nursing aide must bathe the resident even though the resident objects. When the resident dislikes a policy, procedure, or practice which you must perform, the resident may make it more difficult for you to do your job with niceness, kindness, and caring.

III. THREE APPROACHES TO STRENGTHENING FUNCTIONAL SERVICE QUALITY

A.   One way to strengthen functional service quality is to determine which policies, procedures, and practices residents like, and to increase them.

B.   Another way to strengthen functional service quality is to determine which policies, procedures, and practices residents dislike, and to change these where possible.

C.   A third way to strengthen functional service quality is through training and support of employees who must perform procedures or enforce policies which cannot be changed, but are disliked by residents.

These 3 strategies work together to create an environment where functional service quality and resident quality of life reach maximum potential.
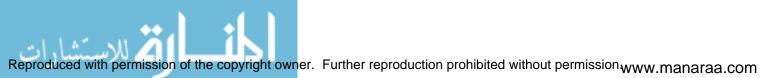
IV. THE SERVICE SUPPORT TEAM CONCEPT

The nursing aides and nurses who care for residents are experts on the topic of resident satisfactions and dissatisfactions. The Service Support Team concept involves increasing the amount of input nursing aides and staff nurses have on ways to strengthen the care residents receive. This input is generated during a series of participative problem-solving meetings involving nursing staff. Nursing staff will have the opportunity to develop several specific plans for strengthening functional service quality and to present these plans to administation for approval. Administration has indicated that they are willing to consider implementation of employee recommendations generated through Service Support Team meetings.

If the Service Support Team program is successful from both employee and management's perspective, the concept will be introduced with other employee groups and in other nursing homes.

Appendix G:

SUPERVISOR AND CHARGE NURSE TRAINING

Supervisory Training Workshop

Goal - To discuss several approaches to helping
supervisors accomplish their goals.

Q: What is management?

A: There are as many different ways to manage as there
are managers. It is primarily getting tasks done
through others.

Q: How do we determine whether a manager is effective?

A: When their staff is effective. When employees
succeed, the manager is succeeding. When employees
succeed, residents are well cared for. And families
are happy.

Q: What do you think is the single biggest influence on
resident quality of life, as reported by residents
themselves?

A: A study commissioned by the National Citizens'
Coalition for Nursing Home reform surveyed residents.
Residents reported that the biggest influence on their
quality of life was relationships with nursing aides.
Considerate, caring nursing aides were rated as most
important by residents.

Q: What do you think is the single largest influence on
how nursing aides treat residents and their families?

A: It is how they feel they are treated in their job, how
they feel about the company and about management. A
variety of research has found that employees treat
customers better when:

-they feel positively toward the job and the company
-management considers customer satisfaction a top priority
-employee input on solving customer service problems is
 sought
-company policies and procedures support, rather than hinder,
 good service to customers

Supervisors have a difficult job. They are accountable not
just for their own performance but for the performance of
others. If their employees do not succeed it may not be the
supervisor's fault, but it IS the supervisor's PROBLEM.

The Director of Nursing asked several supervisors what a
supervisory workshop could offer you to help you meet your
goals. Most people said they would like the workshop to
address communication, motivation, and handling employee
problems. This is the first of two meetings that have been
arranged to address these issues.

The meetings will present information and give you the tools to enhance skills in effectively handling a performance problem, dealing with an employee complaint, and in effective delegation of tasks to nursing aides.

In today's meeting we will discuss different strategies for handling these situations. The Director of Nursing and I will demonstrate using specific steps to communicate effectively with nursing aides.

You will have the opportunity to improve the following skills:

-Counseling or coaching an employee with a performance problem.

-Effectively handling an employee complaint.

-Assigning a task to an employee.

Major Points

1. Aides' key influence on quality of services to residents and families.

2. Aides' feelings about Camelot Hall management, policies, and practices influence their commitment to the job and their commitment to giving quality care.

3. How aide performance is managed influences commitment to the job, work attitudes, and quality of care.

Two goals:

Quality of care - technical quality of medical and personal care: meeting standards and specifications. These are outcomes of care.

Quality of service - warmth, caring, kindness, interpersonal relationships between aides and residents/ families. This is the process of care.
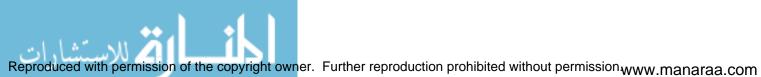
These behaviors cannot be dictated through an autocratic management style. We can't "force" these behaviors, but they can be encouraged. How aides feel about the job, management, and work environment is a major influence on quality of service.

The quality of care and quality of service at Camelot Hall depends on management's ability to coach, motivate, and improve nursing aide performance.

Previously, our procedure for dealing with perfomance problems has been mostly centralized in the positions of the Director and Assistant Director of Nursing. A more efficient strategy might be to give supervisors a more direct role in coaching and improving nursing aide performance, because supervisors are closer to the aides and can respond more quickly.

However, coaching and improving employee performance problems requires a set of skills that rarely come naturally. If a problem is handled well, we have our best shot at turning an employee around. Handled poorly, supervision can make the situation worse -- decreasing motivation, worsening attitudes, increasing likelihood of grievances, and hurting quality of care and service.

Handling performance problems is generally the most stressful aspect of the supervisory role. However, training in the skills of solving performance problems gives the supervisor tools to handle this situation with confidence and effectiveness.

<u>Skills</u> <u>Practice</u> <u>Workshop</u>

-Present key behaviors "Coaching Steps" and discuss each.

-Model performance of a supervisor using the steps correctly.

-Supervisors practice using the steps with a role play
 partner.

-Provide feedback to supervisors on modeled performance.

-Repeat modeled performance of supervisor using the steps
 correctly.

-Supervisors continue practicing steps.

-Provide feedback to supervisors on modeled performance.

The same procedure will be followed in the second supervisory
training meeting. The second meeting will cover "Effectively
Handling a Complaint" and "Assigning a Task to an Employee."

<u>Coaching For Improved Performance</u>

<u>In advance of meeting</u>:   - define specific problem behavior
                            - note frequency of problem behavior
                            - determine "acceptable" error rate
                            - plan what you will say

Coaching should be conducted privately, not in front of others.
Overall tone of meeting is "cooperative problem-solving", not
"punishment". The goal of coaching is to <u>help the employee</u>
<u>to be successful</u> in performing job.

1.   <u>State the problem in behavioral terms.</u>
      Present facts and figures you have documented.
      Describe how this behavior goes beyond the acceptable error
      rate.
      The focus is on the behavior, not "personality".

2.   <u>Explain WHY the behavior is a problem.</u>
      Tie the problem to the consequences for the organization,
      co-workers, customers, or you as supervisor.
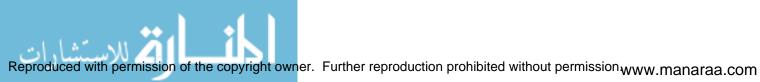
      (If the problem has previously been addressed but keeps
      recurring, also tie the problem to the consequences
      for this employee. Example: "I need someone in that job who
      will do what has to be done correctly -- and I would like it
      to be you").

3.   <u>Ask for the employee's agreement that a problem exists.</u>
      You may have to repeat step 2 if they do not see the problem.

4.   <u>Try to bring the reasons for the problem out into the open.</u>
      Get the employee's input on why the problem exists.

5.   <u>Ask for the employee's suggestions and ideas on how to solve</u>
      <u>the problem.</u>

      (Example: "What are some possible ways to make sure that
      this does not happen again?")

6.   <u>Mutually discuss and evaluate possible solutions to the</u>
      <u>problem.</u>

7.   <u>Agree on what steps each of you will take to solve the</u>
      <u>problem.</u>
      Ask the employee to clearly state the specific steps they
      will take to solve the problem.

8. <u>Discuss</u> <u>and</u> <u>record</u> <u>a</u> <u>specific</u> <u>follow-up</u> <u>date</u> <u>to</u> <u>give</u> <u>the</u>
    <u>employee</u> <u>feedback</u> <u>on</u> <u>whether</u> <u>the</u> <u>solution</u> <u>is</u> <u>successful.</u>
    (Follow-ups, done at regular intervals, REINFORCE the
    employee who changes his/her behavior and solves a problem.
    Example: " I see that you have corrected that problem. I
    really appreciate your efforts on that. Keep up the good
    work and we can keep residents comfortable and prevent skin
    breakdown").

Key behaviors: <u>Effectively</u> <u>handling</u> <u>a</u> <u>complaint</u>.

These skills can be used to respond effectively to complaints from employees, family members or residents.

1.   <u>Listen</u> <u>openly</u> to the complaint. Do not speak until the person has had his or her say.

Avoid reacting emotionally or defensively. When someone has a complaint or concern, they want to know that you really hear what they are saying.

2a.   (optional) Ask the person to <u>explain</u> anything that is unclear.

2b.   Tell the person that <u>you</u> <u>understand</u> the complaint.

You can do this by repeating important points, and acknowledging their feelings about the issue.

3.   <u>State</u> <u>your</u> <u>ideas</u> about the complaint.

You can <u>explain</u> <u>the</u> <u>reason</u> for the situation, policy, or practice that is the cause of the complaint.

You can <u>accept</u> <u>the</u> <u>blame</u> and apologize for the situation if appropriate.

4.   Suggest what each of you could do to resolve this situation, or ask the person for their suggestions about how to resolve the problem.

5.   Agree on any specific steps to be taken in response to the complaint.

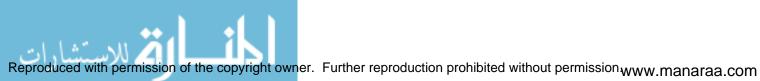6.   Tell the employee that you are glad to work with them to try to solve problems that come up.

Key behaviors: <u>Assigning</u> <u>a</u> <u>task</u> <u>to</u> <u>an</u> <u>employee</u>.

1. Define the results or outcomes wanted. Phrase the assignment as a request.

2. Tell why the job is important.

3. Agree on a time when the task will be completed.

4. Ask for feedback from the employee. Is the task clear? Do they need any assistance or resource to be able to complete the task? Do they forsee a problem in getting the task done by the set time?

5. Let them know you will talk with them later to see how the assignment went.

6. Follow-up later to determine if assignment was completed successfully. Don't omit the follow-up! This is a perfect opportunity to reinforce (thank or praise) the aide for completing the task!

Appendix H:

Intercorrelations Among Nursing Aide Quality of Worklife Variables and Supervisor Ratings of Service Quality

Intercorrelations Among Nursing Aide Quality of Worklife
Variables and Supervisor Ratings of Service Quality

Variable	1	2	3	4	5	6	7
1. Influence							
2. InflSatGap	-.68**						
3. Commitment	.34**	-.33**					
4. Turn Intent	-.14	.20	-.68**				
5. Role Con	-.22	.23	-.44**	.43**			
6. Role Ambg	-.02	-.13	-.31**	.33**	.21		
7. Need SatGap	-.42**	.51**	-.38**	.32**	.34**	.03	
8. Sat/Svc.	.26*	-.22	.35**	-.21	-.13	-.27*	-.26*
9. Sat/Pol.	.43**	-.34**	.64**	-.46**	-.54**	-.23	-.49**
10.Tenure	-.22	.21	-.15	.00	.11	.17	-.00
11.Education	-.04	.22	-.09	-.04	-.11	-.17	.20
12.SQDIS	.14	.01	.03	.09	-.03	.08	.11
13.SQOBS	-.16	.03	-.08	-.05	.02	-.12	-.06
14.Turnover	-.03	.04	-.15	.23*	.02	-.11	-.21

Variable	8	9	10	11	12	13	14
9. Sat/Pol.	.36**						
10.Tenure	-.13	-.21					
11.Education	-.10	-.00	.01				
12.SQDIS	.04	.07	-.19	-.01			
13.SQOBS	-.06	-.12	.21	.02	-.97**		
14.Turnover	.09	.00	-.24*	.23	.00	-.01	

Note.   N=74 for all variables
*p < .05 (two-tailed)
**p < .01 (two-tailed)